



Low Voltage Products

# ABB Low Voltage components Industrial and commercial applications

Version 0113

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list at  
<http://gb.pricelistabb.com>

Power and productivity  
for a better world™



# General Information



## Contents

Main Index.....	1/2
Information for wholesalers and stockists .....	1/4
About Voltimum.....	1/5
ABB publications.....	1/6

## Knowledge Base

General Enquiries: LV.Enquiries@gb.abb.com  
Customer Services: LV.CustomerService@gb.abb.com  
Technical: LV.TechnicalSupport@gb.abb.com

### Stockists

To find your nearest stockist, please visit:  
<http://www.abb.co.uk/lowvoltage>

### Sales Desk

Telephone: 02476 368676  
Facsimile: 02476 368401  
Credit Control: 01480 475321

If you already have an account you can place orders:

Online: <http://online.abb.com/bol>  
Email: [orders.lvp@gb.abb.com](mailto:orders.lvp@gb.abb.com)  
Facsimile: 02476 368401

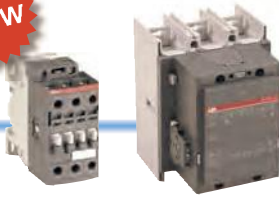
# Easy view product finder

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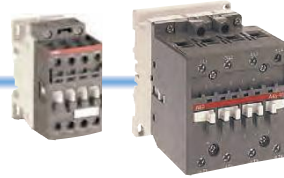
1

## Control

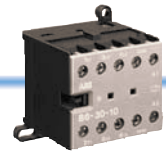
New



3 pole block contactors 1/8



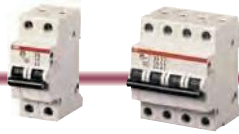
4 pole block contactors 1/16



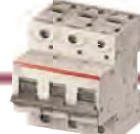
Mini block contactors 1/27

2

## Installation



S200/280 series 2/4



S800 series 2/27



Earth leakage devices 2/47



3

## Power Breakers

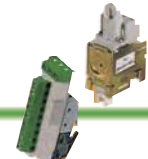
New XT Tmax



New XT Tmax X1... X4 3/6



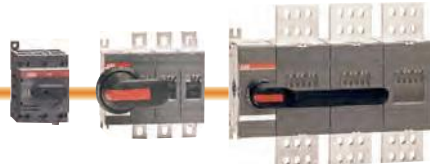
Tmax T5...T7 3/12



Accessories 3/20

4

## Switchgear



Switch disconnectors 4/2



Changeover and transfer switches 4/24

New OTM 40

5

## Enclosures



Sheet steel 5/4



Insulated 5/6



Switchboards 5/8



Gemini enclosures 5/11

6

## Terminals



SNK terminals 7/2



Multi-block terminals 7/14



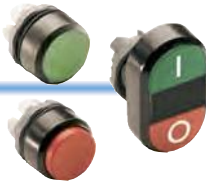
Power terminals 7-37



Manual motor starters 1/29



Soft starters 1/32



Pushbutton & pilot devices 1/35



Electronic relays 1/45



Accessories 2/57



Digital meters 2/60



Modular devices 2/61



Emax X1 3/35



Emax E1...E6 3/36



Accessories 3/50



Switch fuses 4/46



Motorised switch fuses 4/46



Slimline switch fuses 4/69



Cam switches 4/70

7

Jokab Safety

New



General overview 7/2



# General Information

## Wholesales and stockists

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We have created two dedicated publications focussing on our core products for industrial automation and contractor/installer markets.

You will find information on products including brief technical specification, short code, order code, LVE items and product hierarchy. (Example below)

70mm <sup>2</sup> Feed Through Terminal Blocks		Product Hierarchy 300010	LVE Item
Type	Description	Order Code	
7510	70mm <sup>2</sup> feed through terminal block (Grey) [jack size = 10]	13N83201090000	•
7510-BL	70mm <sup>2</sup> feed through terminal block (Blue) [jack size = 10]	13N83202090000	•
7510-PF	70mm <sup>2</sup> feed through terminal block, Ground (Green / Yellow) [jack size = 10]	13N8321090000	•
Accessories			
862-2	Jumper bar, 2 pole, 22mm pitch [jack size = 5]	13N83221090000	•
862-3	Jumper bar, 3 pole, 22mm pitch [jack size = 5]	13N83223090000	•
862-5	Jumper bar, 5 pole, 22mm pitch [jack size = 5]	13N83225090000	•



### Product hierarchy

The Product Hierarchy has been included to assist in identifying discounts for particular product ranges when used in conjunction with the customer discount structure file.

### LVE item

As a guide, we have indicated our fast running items in the column marked LVE Item with this symbol •, all other items are available on factory lead times.

### Web portal

As a customer, you can also take advantage of the services provided by our web based on-line solutions.

From this portal you can obtain price and availability, check order status, obtain copy documentation and place orders on-line 24/7/365. If you have not already registered, you can do this by

# About Voltimum

ABB is a founder member of Voltimum which was launched in 2003. Voltimum is an internet portal for the electrical industry and is active in 6 countries within Europe.

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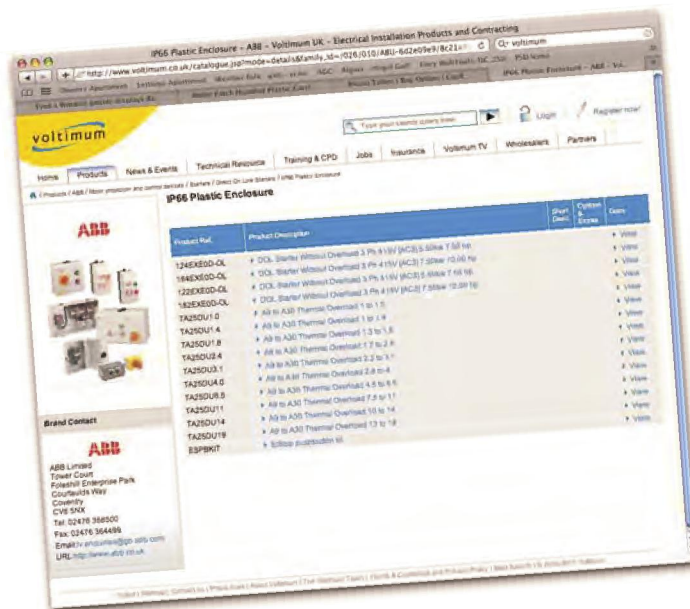
The portal is backed by 7 leading European manufacturers of electrical installation products who have invested over 20 million euros in the project.

Other manufacturers join the Voltimum online catalogue regularly as they see this unique initiative as an opportunity to increase the awareness of their products, being used on a daily basis by electrical contractors.

The initiative was first announced to the press in October 2000 and since then technical architecture of the portal has been designed and developed. Also in this period, 6 locally based teams were put in place to develop the portal in each country, adapting the portal to the needs of the local market and working with local providers of appropriate content.














Voltimum is headed by Bruno Hamon who is based in the Company's HQ in Geneva.



# ABB Low Voltage technical publications

0

<b>Integrated control range</b>  <b>New</b> Industrial Products 1SBC100155C0201	<b>Block contactors</b>  Industrial Products 1SBC100122C0202	<b>Pilot devices</b>  Industrial Products 1SFC151004C0201
<b>Soft starters</b>  Industrial Products 1SFC132005C0201	<b>Relay &amp; timers</b>  Industrial Products 2CDC110004C0206	<b>Installation equipment</b>  Industrial Products Contractor Products 2CSC400002D0206
<b>KNX equipment</b>  <b>New</b> Contractor Products 2CDC500007B0207	<b>Wiring accessories</b>  Contractor Products 1SXF610007C0201	<b>Watchdog PIRs</b>  Contractor Products 9AKK104295D6667
<b>MCCBs</b>  <b>New</b> Industrial Products Contractor Products 1SDC210015D0204	<b>ACBs</b>  Industrial Products 1SDC200006D0207	<b>Jokab safety</b>  <b>New</b> Industrial Products 2TLC172001C0201
<b>Switch fuses</b>  Industrial Products Contractor Products 1SCC311013C0201	<b>Switch disconnectors</b>  Industrial Products Contractor Products 1SCC301001C0201	<b>Changeover switches</b>  <b>New</b> Industrial Products 1SCC303003C0201
<b>XR SlimLine switch fuses</b>  Industrial Products 1SEC311001C0201	<b>Cam switches</b>  Industrial Products Contractor Products 1SCC302003C0201	<b>Cewe plugs and sockets</b>  <b>New</b> Contractor Products 2CMC700014C0006
<b>5000 series</b>  Industrial Products 1SNK160001C0207	<b>SNK series</b>  Industrial Products 1SNK161001C0204	<b>Solar PV products</b>  <b>New</b> Contractor Products 9AKK1051152A5119

## Download centre

Our main technical catalogues are illustrated on this page.

Visit the ABB Library at:  
<http://www.abb.com/abblibrary/DownloadCenter/>

or enter the catalogue number into a search engine to download the catalogue(s) you require.



**Priced Edition on-line**

Catalogue number  
 1TXD000001P0211

## Industrial products

To view this publication on-line with our turning page technology type the URL below into your web browser, you do not have to download pdf files. Any price or product changes will be reflected on this URL at the review date. Save the URL in your favourites for future viewing.

<http://view.digi-page.net/?id=ABBIndustrialproducts>



## Contractor products

<http://view.digi-page.net/?id=1TXD000001P0229>

# Control



**New  
AF Range**



## Block contactors

Overview .....	1/2
3 pole contactors .....	1/8
4 pole contactors .....	1/16
Contactors relays .....	1/20
AF09 ... AF38 accessories and overload relays .....	1/21
A45 ... AF1650 accessories and overload relays .....	1/23
A50 ... AF750 overload relays.....	1/26
Mini contactors.....	1/27
Mini contactor overload relays & accessories .....	1/28

## Manual motor starters

Manual motor starters .....	1/29
Manual motor starter accessories.....	1/30

## Soft starters

Overview .....	1/32
PSR - PSE soft starts .....	1/33
PSS - PST soft starts .....	1/34

## Push buttons & pilot devices

Compact range .....	1/35
Modular range .....	1/39

## Electronic products & relays

Electronic products & relays .....	1/45
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1

### New Range Contactors



Full range of product and technical information place this part number in a search engine and download

1SBC100155C0201

### Block Contactors



Full range of product and technical information place this part number in a search engine and download

1SBC100122C0202

### Electronic Products & Relays



Full range of product and technical information place this part number in a search engine and download

2CDC110004C0206

### Pilot Devices



Full range of product and technical information place this part number in a search engine and download

1SFC151004C0201

### Soft Starters



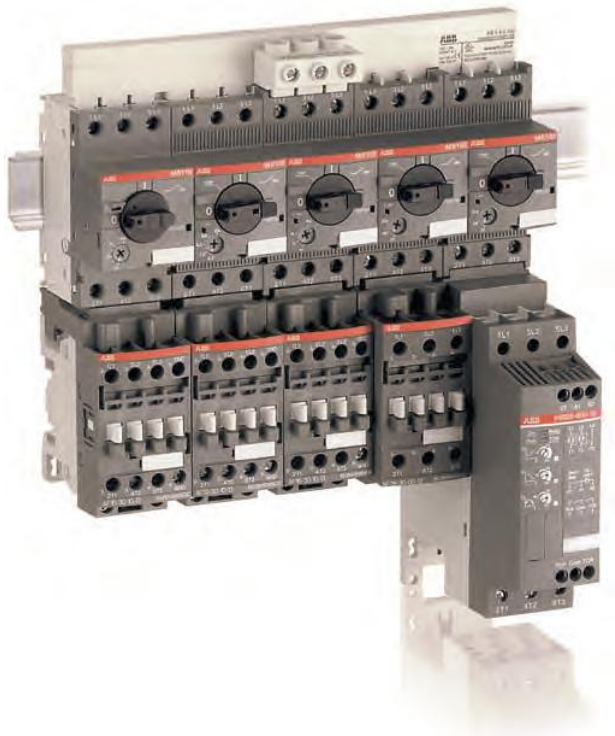
Full range of product and technical information place this part number in a search engine and download

1SFC132005C0201



# Large choice of starting solutions in kit form

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## Short-circuit and overload protection

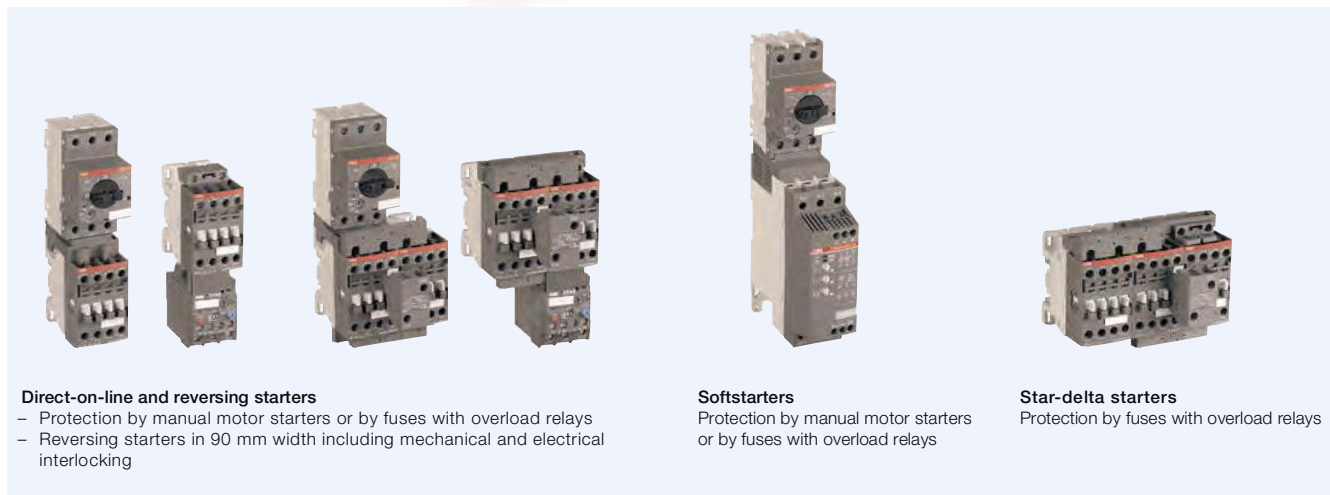
- Type 1 or type 2 coordination guaranteed with manual motor starters
- Choice of thermal or electronic overload relays

## Simple construction

- All starters in 45 mm width module

## Time/cost saving

- Same frame size for AC or DC control supply
- Easy, fast and secure assembly, fitting and wiring of components



### Direct-on-line and reversing starters

- Protection by manual motor starters or by fuses with overload relays
- Reversing starters in 90 mm width including mechanical and electrical interlocking

### Softstarters

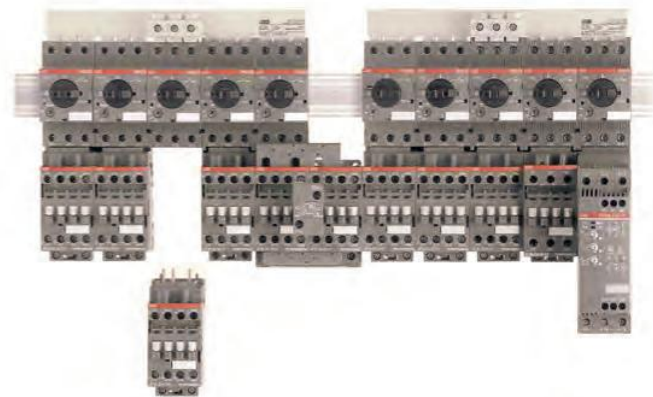
- Protection by manual motor starters or by fuses with overload relays

### Star-delta starters

- Protection by fuses with overload relays

## Standardized busbars and optimized interconnection accessories

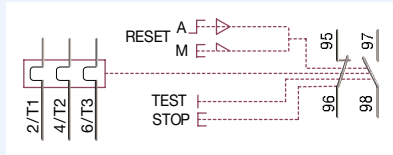
- Same 3-phase busbar and feeder range up to 100 A for manual motor starters
- Direct 35 mm rail mounting: no additional mounting plate required
- Complete range of connection links with manual motor starters and connection sets to build reversing and star-delta starters
- Easy installation and dismantling of contactors: no unwiring of manual motor starters



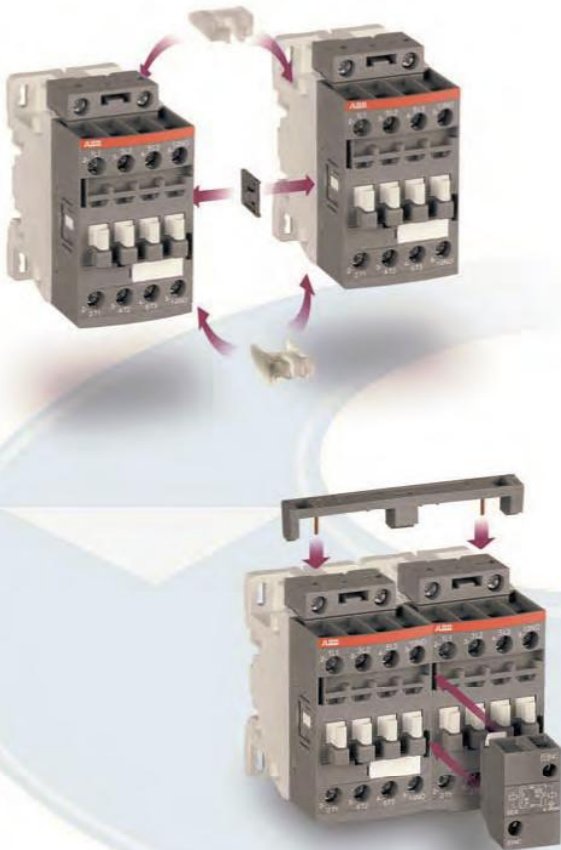


**Protect your motors with thermal or electronic overload relays**

- One range of TF42 thermal overload relays, trip class 10
- One range of EF19 and EF45 electronic overload relays up to 45 A, 7 setting ranges, trip class 10E, 20E, 30E
- Adjustable current setting ranges
- Overload protection with phase loss sensitivity
- Temperature compensation:
  - up to +60 °C for thermal overload relays
  - up to +70 °C for electronic overload relays
- Automatic or manual reset, sealable
- Stop and test function



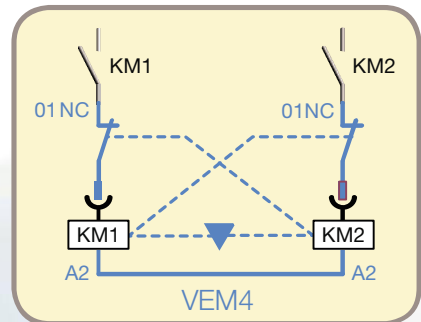
- Current setting range
- Reset function
- Test function
- Stop function



**Interlock your reversing contactors quickly in 90 mm width:**

- Easy with VM4 mechanical interlock unit
- Simple with VEM4 set including mechanical interlock unit and electrical interlock block with A2-A2 connection
- 50% wiring cost savings in one click!

Fixing the electrical interlock block to the contactor front face connects the 2 built-in N.C. interlocking contacts with the two coil supplies



# MS116 and MS132 manual motor starters

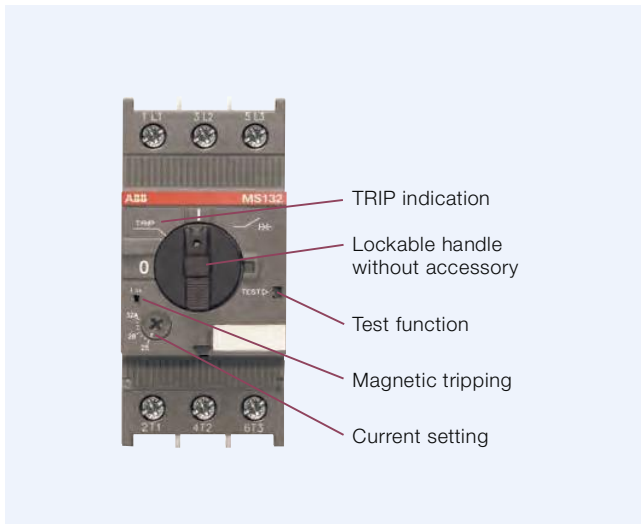
Harmonized design in 45 mm width

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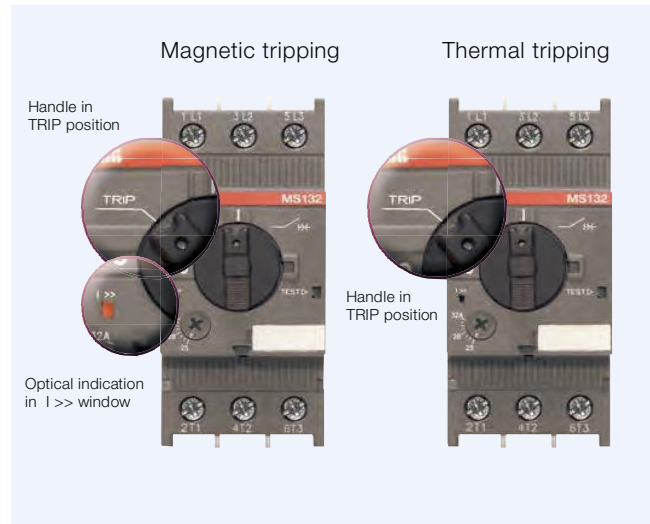


Types	MS116	MS132
Setting range	0.1 ... 16 A	0.1 ... 32 A
Switch position	ON / OFF	ON / OFF / TRIP
Magnetic trip indication	-	yes
Lockable handle without accessories	-	yes
Max. breaking capacity $I_{cs}$	up to 50 kA	up to 100 kA
Trip class	10A	10

## ON/OFF switch functionality



## Clear tripping identification



## One range of accessories for MS116 and MS132

- Common auxiliary contacts, signaling contacts and auxiliary trip units
- Common busbar systems



# AF09 ... AF38 3-pole contactors

Simple design with 2 frame sizes in 45 mm width

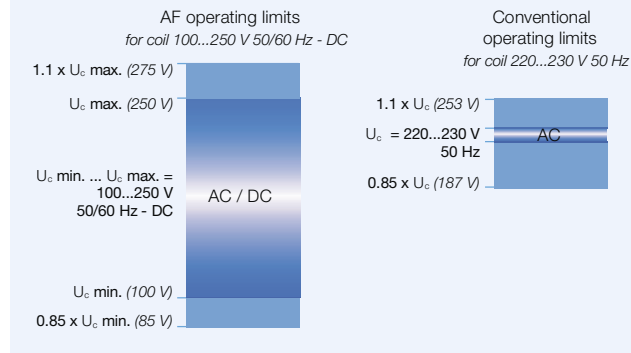


Types	AF09	AF12	AF16	AF26	AF30	AF38
Rated operational power 400 V AC-3	4 kW	5.5 kW	7.5 kW	11 kW	15 kW	18.5 kW
Rated operational current AC-1 (40 °C)	25 A	28 A	30 A	45 A	50 A	50 A
UL 3-phase motor power 480 V	5 hp	7.5 hp	10 hp	15 hp	20 hp	20 hp

1

## A unique contactor for AC or DC control supply

- Manages large control voltage variations
- Includes an electronic coil interface with extended operating limits  $0.85 \times U_c$  min. ...  $1.1 \times U_c$  max.



## Reduced panel energy consumption

- With low holding AC and DC coil consumption
- From 30% (AF coil) to 80% (AF.Z coil) reduction of AC pull-in consumption

## Built-in surge protection

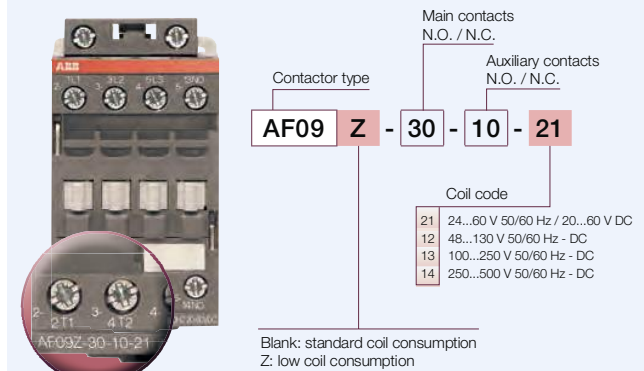
- No extra surge suppressor required

## Improve your equipment reliability with AF.Z contactors

- Withstands control voltage short dips
- Withstands control voltage sags according to SEMI F47-0706 standards
- Additional AF.Z coils available for control voltages between 12...20 V DC and 48...250 V 50/60 Hz - DC

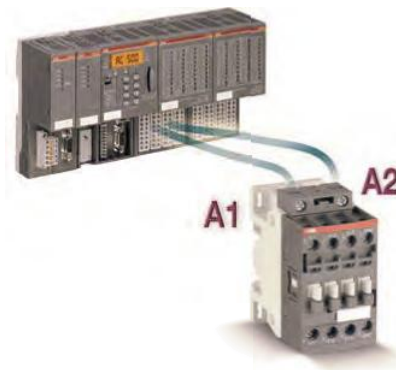
## Only four coils for easier selection

Control voltages covering 24...500 V 50/60 Hz and 20...500 V DC



## Direct control by PLC-output 500 mA, 24 V DC

No use of interface relay





# Switching of auxiliary and control circuits



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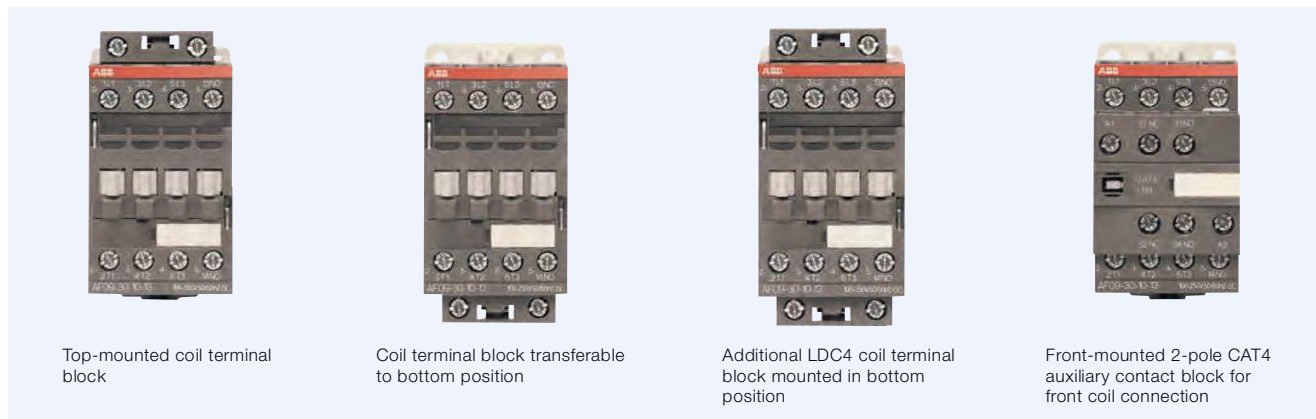
## Optimize your auxiliary contact block configuration

- AF09...AF16 3-pole contactors equipped with a built-in auxiliary contact N.O. or N.C.
- Up to 6 additional auxiliary contacts:
  - front-mounted 1 or 4-pole CA4 blocks
  - side-mounted 2-pole CAL4 blocks
- Reduced panel dimension using up to 2 side-mounted 2-pole CAL4 blocks

## Make your control circuit safe

- **Mirror contact** .....  according to IEC 60947-4-1 Annex F 2.1
- **Mechanically linked contacts** .....  according to IEC 60947-5-1 Annex L 3.0

## Free choice of your coil terminal access



Top-mounted coil terminal block

Coil terminal block transferable to bottom position

Additional LDC4 coil terminal block mounted in bottom position

Front-mounted 2-pole CAT4 auxiliary contact block for front coil connection

## Protect your equipment against accidental contact



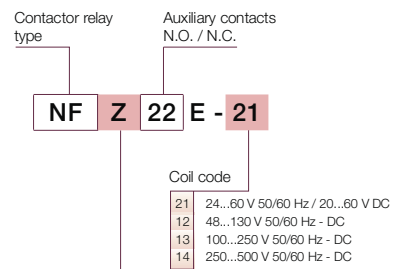
Sealable and transparent protective covers on contactors (BX4) and overload relays



Non-removable protective covers (BX4-CA) for auxiliary contact blocks

## Complete choice of contactor relays

- Same advantages and accessories as AF contactors
- Only four coils for easier selection



Blank: standard coil consumption  
Z: low coil consumption

# PSR softstarters

Compact design with 3 frame sizes



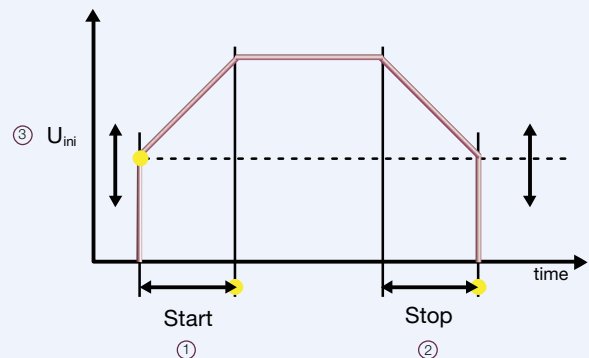
Types	PSR3 ... PSR16 PSE18	PSR-PSE25, PSR-PSE30	PSR-PSE37
Rated operational power 400 V AC-53a	1.5 ... 7.5 kW	11 ... 15 kW	18.5 kW
UL 3-phase motor power - 480 V	2 ... 10 hp	15 ... 20 hp	25 hp

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- Built-in by-pass contacts in main circuit
- Wide main voltage range: from 208 to 600 V
  - fewer variants
  - very robust and insensitive to voltage variations
- Wide supply voltage range: 100 ... 240 V AC or 24 V DC



- ① Ramp time START = 1 ... 20 sec
- ② Ramp time STOP = 0 ... 20 sec
- ③ Initial voltage  $U_{ini}$  = 40 ... 70 % (also set "end voltage")



## Easy to install and set up

- 35 mm rail or screw mounting
- All settings visible and adjustable on front face
- Run signal relay for all sizes
- Output signal for TOR (Top Of Ramp) for PSR25...PSR37
- 10 starts per hour standard, increased to 20 starts or more with addition of auxiliary cooling fan
- Remote control connection using Field Bus Plug as accessory

Compact starter solution in 45 mm width with manual motor starter up to 15 kW - 400 V



# 3-pole block contactors

## for all industrial applications and motor starting

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IEC	AC-3 Rated Power	$\theta$ ? 55 °C, 400 V	kW
UL/CSA	3-phase Motor Power	480 V	hp
AC Control Supply			Type
DC Control Supply			Type
AC / DC Control Supply			Type
IEC	AC-3 Rated Current	$\theta$ ? 55 °C, 400 V	A
	AC-1 Rated Current	$\theta$ ? 40 °C, 690 V	A
UL/CSA	General Use Rating	600 V	A
NEMA	NEMA Size		

\*  $\theta$  ? 60 °C for AF09...AF38 contactors

### Main Accessories

Auxiliary Contact Blocks	Front mounting
	Side mounting
Timers	Pneumatic (Front mounting)
	Electronic
Interlocking Units (compact reversing contactors)	Mechanical
	With safety blocking
	Mechanical / Electrical
Connection Sets	For reversing contactors
Surge Suppressors	Varistor (AC/DC)
	RC Type (AC)
	Transil diode (DC)

AF contactors have built-in surge protection

### Overload Relays

Thermal Relays		Class 10 (10A or 20 for TA42DU to TA80DU)
Electronic Relays		Class 10E, 20E, 30E
Accessories for Thermal Overload Relays	Remote tripping coil	
	Remote reset coil	
	Wall/separate mounting kit	

### Manual Motor Starters

Manual Motor Starters	Thermal / magnetic protection	Class 10
		Class 20
	Magnetic only types	
Accessories	For contactor mounting	
	Aux. trip units, aux. contacts, busbars	

### Standard

4	5.5	7.5	11	15	18.5	18.5	22	30	37
5	7.5	10	15	20	20	30	40	60	60
AF09	AF12	AF16	AF26	AF30	AF38	A40	A50	A63	A75
AF09	AF12	AF16	AF26	AF30	AF38	AL40	AE50	AE63	AE75
AF09	AF12	AF16	AF26	AF30	AF38	—	AF50	AF63	AF75
9	12	18	26	32	38	37	50	65	75
25	28	30	45	50	50	60	100	115	125
25	28	30	45	50	50	60	80	90	105
00	0	—	1	—	—	1P	2	—	3

CA4-10 (1 x N.O.), CA4-01 (1 x N.C.)	CA5-10 (1 x N.O.), CA5-01 (1 x N.C.)
CAL4-11 (1 x N.O. + 1 x N.C.)	CAL5-11 (1 x N.O. + 1 x N.C.)
	TP40DA, TP180DA Direct timing
	TP40IA, TP180IA Inverse timing
VM4	
VEM4	VE5-1
BER16-4	VE5-2
	BER40
	BEM75-30
	RV5 (24...440 V)
	RV5 (24...440 V)
	RC5-1 (24...440 V)
	RC5-2 (24...440 V)
	RT5 (24...264 V)
	RT5 (24...264 V)

TF42 (0.10...38 A)	TA42DU (18...42 A)	TA75DU (18...80 A)
EF19 (0.10...18.9 A)	EF19 (0.10...18.9 A)	EF45 (0...45 A)
	E45DU (0...45 A)	E80DU (27...80 A)
		DB80, DB45E, DB80E

MS116 for class 10A (0.10...16 A) $I_{cs}$ up to 50 kA	MS450 (40...50 A) $I_{cs}$ up to 50 kA	MS495 (28...100 A) $I_{cs}$ up to 50 kA
MS132 (0.10...32 A) $I_{cs}$ up to 100 kA	MS497 (11...100 A) $I_{cs}$ up to 100 kA	MS451 (11...50 A) $I_{cs}$ up to 50 kA
	MS496 (28...100 A) $I_{cs}$ up to 100 kA	
	MO450 (16...50 A) $I_{cs}$ up to 50 kA	MO495 (40...100 A) $I_{cs}$ up to 50 kA
	MO496 (16...100 A) $I_{cs}$ up to 100 kA	
BEA16-4	BEA38-4	BEA40/BEA450
BEA50/BEA450	BEA75/BEA495	
HKF1, HK1, UA1, AA1, PS1, S1, SK1	HK4, HKS4, UA4, AA4, PS4, S4, SK4	
CK1 (MS132 only)		



Full range of product and technical information place this part number in a search engine and download

1SBC100155C0201



45	55	75	90	110	140	160	200	250	315	400	—	475	560	—
60	75	100	125	150	200	250	350	400	500	600	—	800	900	—
A95	A110	A145	A185	A210	A260	A300	AF400	AF460	AF580	AF750	AF1250	AF1350	AF1650	AF2050
AE95	AE110	AF145	AF185	AF210	AF260	AF300	AF400	AF460	AF580	AF750	AF1250	AF1350	AF1650	AF2050
AF95	AF110	AF145	AF185	AF210	AF260	AF300	AF400	AF460	AF580	AF750	AF1250	AF1350	AF1650	AF2050
96	110	145	185	210	260	305	400	460	580	750	—	860	1050	—
145	160	250	275	350	400	500	600	700	800	1050	1260	1350	1650	2050
125	140	230	250	300	350	400	550	650	750	900	1210	1350	1650	2100
—	—	4	—	—	5	—	—	6	—	7	—	—	8	—

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CAL18-11 (1 x N.O. + 1 x N.C.)				
	VM300H / VM300V		VM750H / VM750V	VM1650H
VE5-2				
BEM110-30	BEM185-30	BEM300-30	BEM460-30	BEM750-30
RV5 (24...440 V)				
RC5-2 (24...440 V)				
RT5 (24...284 V)				

TA80DU (29...80 A)	TA200DU (65...200 A)	TA450DU/SU (130...310 A) class 30 for SU			
TA110DU (65...110 A)					
E140DU (50...140 A)	E200DU (60...200 A)	E320DU (100...320 A)	E500DU (150...500 A)	E800DU (250...800 A)	E1250DU (375...1250 A)
		DS25-A			
		DR25-A			
DB80, DB200, D140E	DB200	DT450/A			

Circuit Breakers

Tmax Circuit Breaker and accessories



Full range of product and technical information place this part number in a search engine and download

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# AF09 ... AF16 3 pole contactors

AC/DC operated

1



## AF09 ... AF16 Contactors

AC-3 400V kW	AC-3 400V A	AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700009	
						Order Code	Price
4	9	25	1	-	AF09-30-10-11 24-60V50/60HZ-DC	1SBL137001R1110	
					AF09-30-10-12 48-130V50/60HZ-DC	1SBL137001R1210	
					AF09-30-10-13 100-250V50/60HZ-DC	1SBL137001R1310	
					AF09-30-10-14 250-500V50/60HZ-DC	1SBL137001R1410	
					AF09Z-30-10-20 12-20VDC	1SBL136001R2010	
					AF09Z-30-10-21 24-60V50/60HZ 20-60VDC	1SBL136001R2110	
			-	1	AF09-30-01-11 24-60V50/60HZ-DC	1SBL137001R1101	
					AF09-30-01-12 48-130V50/60HZ-DC	1SBL137001R1201	
					AF09-30-01-13 100-250V50/60HZ-DC	1SBL137001R1301	
					AF09-30-01-14 250-500V50/60HZ-DC	1SBL137001R1401	
					AF09Z-30-01-20 12-20VDC	1SBL136001R2001	
					AF09Z-30-01-21 24-60V50/60HZ 20-60VDC	1SBL136001R2101	
5.5	12	28	1	-	AF12-30-10-11 24-60V50/60HZ 20-60VDC	1SBL157001R1110	
					AF12-30-10-12 48-130V50/60HZ-DC	1SBL157001R1210	
					AF12-30-10-13 100-250V50/60HZ-DC	1SBL157001R1310	
					AF12-30-10-14 250-500V50/60HZ-DC	1SBL157001R1410	
					AF12Z-30-10-20 12-20VDC	1SBL156001R2010	
					AF12Z-30-10-21 24-60V50/60HZ 20-60VDC	1SBL156001R2110	
			-	1	AF12-30-01-11 24-60V50/60HZ 20-60VDC	1SBL157001R1101	
					AF12-30-01-12 48-130V50/60HZ-DC	1SBL157001R1201	
					AF12-30-01-13 100-250V50/60HZ-DC	1SBL157001R1301	
					AF12-30-01-14 250-500V50/60HZ-DC	1SBL157001R1401	
					AF12Z-30-01-20 12-20VDC	1SBL156001R2001	
					AF12Z-30-01-21 24-60V50/60HZ 20-60VDC	1SBL156001R2101	
7.5	18	30	1	-	AF16-30-10-11 24-60V50/60HZ 20-60VDC	1SBL177001R1110	
					AF16-30-10-12 48-130V50/60HZ-DC	1SBL177001R1210	
					AF16-30-10-13 100-250V50/60HZ-DC	1SBL177001R1310	
					AF16-30-10-14 250-500V50/60HZ-DC	1SBL177001R1410	
					AF16Z-30-10-20 12-20VDC	1SBL176001R2010	
					AF16Z-30-10-21 24-60V50/60HZ 20-60VDC	1SBL176001R2110	
			-	1	AF16-30-01-11 24-60V50/60HZ 20-60VDC	1SBL177001R1101	
					AF16-30-01-12 48-130V50/60HZ-DC	1SBL177001R1201	
					AF16-30-01-13 100-250V50/60HZ-DC	1SBL177001R1301	
					AF16-30-01-14 250-500V50/60HZ-DC	1SBL177001R1401	
					AF16Z-30-01-20 12-20VDC	1SBL176001R2001	
					AF16Z-30-01-21 24-60V50/60HZ 20-60VDC	1SBL176001R2101	



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# AF26 ... AF210 3 pole contactors

## AC/DC operated

### AF26 ... AF210 Contactors

AC-3 400V kW	AC-3 400V A	AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700009	
						Order Code	Price
11	26	45	-	-	AF26-30-00-11 24-60V50/60HZ 20-60VDC	1SBL237001R1100	
					AF26-30-00-12 48-130V50/60HZ-DC	1SBL237001R1200	
					AF26-30-00-13 100-250V50/60HZ-DC	1SBL237001R1300	
					AF26-30-00-14 250-500V50/60HZ-DC	1SBL237001R1400	
					AF26Z-30-00-20 12-20VDC	1SBL236001R2000	
					AF26Z-30-00-21 24-60V50/60HZ 20-60VDC	1SBL236001R2100	
15	32	50	-	-	AF30-30-00-11 24-60V50/60HZ 20-60VDC	1SBL277001R1100	
					AF30-30-00-12 48-130V50/60HZ-DC	1SBL277001R1200	
					AF30-30-00-13 100-250V50/60HZ-DC	1SBL277001R1300	
					AF30-30-00-14 250-500V50/60HZ-DC	1SBL277001R1400	
					AF30Z-30-00-20 12-20VDC	1SBL276001R2000	
					AF30Z-30-00-21 24-60V50/60HZ 20-60VDC	1SBL276001R2100	
18.5	35	50	-	-	AF38-30-00-11 24-60V50/60HZ 20-60VDC	1SBL297001R1100	
					AF38-30-00-12 48-130V50/60HZ-DC	1SBL297001R1200	
					AF38-30-00-13 100-250V50/60HZ-DC	1SBL297001R1300	
					AF38-30-00-14 250-500V50/60HZ-DC	1SBL297001R1400	
					AF38Z-30-00-20 12-20VDC	1SBL296001R2000	
					AF38Z-30-00-21 24-60V50/60HZ 20-60VDC	1SBL296001R2100	
						Product Hierarchy 1700003	
22	50	100	1	1	AF50-30-11 48-130V AC/DC	1SBL357001R6911	
					AF50-30-11 100-250V AC/DC	1SFL357001R7011	
30	65	115	1	1	AF63-30-11 48-130V AC/DC	1SBL377001R6911	
					AF63-30-11 100-250V AC/DC	1SBL377001R7011	
37	75	125	1	1	AF75-30-11 48-130V AC/DC	1SBL417001R6911	
					AF75-30-11 100-250V AC/DC	1SBL417001R7011	
						Product Hierarchy 1700001	
45	96	145	1	1	AF95-30-11 48-130V AC/DC	1SFL437001R6911	
					AF95-30-11 100-250V AC/DC	1SFL437001R7011	
55	110	160	1	1	AF110-30-11 48-130V AC/DC	1SFL457001R6911	
					AF110-30-11 100-250V AC/DC	1SFL457001R7011	
75	145	250	1	1	AF145-30-11 48-130V AC/DC	1SFL477001R6911	
					AF145-30-11 100-250V AC/DC	1SFL477001R7011	
90	185	275	1	1	AF185-30-11 48-130V AC/DC	1SFL497001R6911	
					AF185-30-11 100-250V AC/DC	1SFL497001R7011	
110	210	350	1	1	AF210-30-11 48-130V AC/DC	1SFL517001R6911	
					AF210-30-11 100-250V AC/DC	1SFL517001R7011	



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# AF260 ... AF1650 3 pole contactors

AC/DC operated

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## AF260 ... A1650 Contactors

AC-3 400V kW	AC-3 400V A	AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700001	
						Order Code	Price
140	260	400	1		AF260-30-11 48-130V AC/DC	1SFL537001R6911	
					AF260-30-11 100-250V AC/DC	1SFL537001R7011	
160	305	500	1	1	AF300-30-11 48-130V AC/DC	1SFL557001R6911	
					AF300-30-11 100-250V AC/DC	1SFL557001R7011	
200	400	600	1	1	AF400-30-11 48-130V AC/DC	1SFL577001R6911	
					AF400-30-11 100-250V AC/DC	1SFL577001R7011	
250	460	700	1	1	AF460-30-11 48-130V AC/DC	1SFL597001R6911	
					AF460-30-11 100-250V AC/DC	1SFL597001R7011	
315	580	800	1	1	AF580-30-11 48-130V AC/DC	1SFL617001R6911	
					AF580-30-11 100-250V AC/DC	1SFL617001R7011	
400	750	1050	1	1	AF750-30-11 48-130V AC/DC	1SFL637001R6911	
					AF750-30-11 100-250V AC/DC	1SFL637001R7011	
475	860	1350	1	1	AF1350-30-11 100-250V AC/DC	1SFL657001R7011	
560	1050	1650	1	1	AF1650-30-11 100-250V AC/DC	1SFL677001R7011	



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# A50 ... A95 3 pole contactors

## AC operated



### A50 ... A95 Contactors

IAC-3 400V kW	AC-3 400V A	AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700003	
						Order Code	Price
22	50	100	1	1	A50-30-11 110V 50/60Hz	1SBL351001R8411	
					A50-30-11 220-230V 50Hz	1SBL351001R8011	
					A50-30-11 230-240v 50Hz	1SBL351001R8811	
					A50-30-11 24V 50/60Hz	1SBL351001R8111	
					A50-30-11 400-415V 50Hz	1SBL351001R8611	
30	65	115	1	1	A63-30-11 48V 50/60Hz	1SBL371001R8311	
					A63-30-11 110V 50/60Hz	1SBL371001R8411	
					A63-30-11 220-230V 50Hz	1SBL371001R8011	
					A63-30-11 230-240v 50Hz	1SBL371001R8811	
					A63-30-11 24V 50/60Hz	1SBL371001R8111	
A63-30-11 400-415V 50Hz	1SBL371001R8611						
37	75	125	1	1	A75-30-11 110V 50/60Hz	1SBL411001R8411	
					A75-30-11 220-230V 50Hz	1SBL411001R8011	
					A75-30-11 230-240v 50Hz	1SBL411001R8811	
					A75-30-11 24V 50/60Hz	1SBL411001R8111	
					A75-30-11 400-415V 50Hz	1SBL411001R8611	
45	96	145	1	1	Product Hierarchy 1700001		
					A95-30-11 48V 50Hz	1SFL431001R8311	
					A95-30-11 110V 50Hz	1SFL431001R8411	
					A95-30-11 220-230V 50Hz	1SFL431001R8011	
					A95-30-11 230-240V 50Hz	1SFL431001R8811	
					A95-30-11 24V 50Hz	1SFL431001R8111	
A95-30-11 400-415V 50Hz	1SFL431001R8611						



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# A110 ... A300 3 pole contactors

## AC operated

1



### A110 ... A300 Contactors

AC-3 400V kW	AC-3 400V A	AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700001	
						Order Code	Price
55	110	160	1	1	A110-30-11 24V 50/60H	1SFL451001R8111	
					A110-30-11 110V 50/60Hz	1SFL451001R8411	
					A110-30-11 220-230V 50Hz	1SFL451001R8011	
					A110-30-11 230-240V 50Hz	1SFL451001R8811	
					A110-30-11 400-415V 50Hz	1SFL451001R8611	
75	145	250	1	1	A145-30-11 24V 50Hz	1SFL471001R8111	
					A145-30-11 48V 50Hz	1SFL471001R8311	
					A145-30-11 110V 50Hz	1SFL471001R8411	
					A145-30-11 220-230V 50Hz	1SFL471001R8011	
					A145-30-11 230-240V 50Hz	1SFL471001R8811	
A145-30-11 400-415V 50Hz	1SFL471001R8611						
90	185	275	1	1	A185-30-11 110V 50Hz	1SFL491001R8411	
					A185-30-11 220-230V 50Hz	1SFL491001R8011	
					A185-30-11 230-240V 50Hz	1SFL491001R8811	
					A185-30-11 24V 50Hz	1SFL491001R8111	
A185-30-11 400-415V 50Hz	1SFL491001R8611						
110	210	350	1	1	A210-30-11 24V 50Hz	1SFL511001R8111	
					A210-30-11 48V 50Hz	1SFL511001R8311	
					A210-30-11 110V 50Hz	1SFL511001R8411	
					A210-30-11 220-230V 50Hz	1SFL511001R8011	
					A210-30-11 230-240V 50Hz	1SFL511001R8811	
A210-30-11 400-415V 50Hz	1SFL511001R8611						
140	260	400	1	1	A260-30-11 24V 50Hz	1SFL531001R8111	
					A260-30-11 110V 50Hz	1SFL531001R8411	
					A260-30-11 220-230V 50Hz	1SFL531001R8011	
					A260-30-11 230-240V 50Hz	1SFL531001R8811	
					A260-30-11 400-415V 50Hz	1SFL511001R8611	
160	305	500	1	1	A300-30-11 24V 50Hz	1SFL551001R8111	
					A300-30-11 110V 50Hz	1SFL551001R8411	
					A300-30-11 220-230V 50Hz	1SFL551001R8011	
					A300-30-11 230-240V 50Hz	1SFL551001R8811	
					A300-30-11 400-415 50Hz	1SFL551001R8611	



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# AE50 ... AE63 - AF50 ... AF750 3 pole contactors

## DC operated



### AE50 ... AE110 Contactors

AC-3 400V kW	AC-3 400V A	AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700003	
						Order Code	Price
22	50	100	1	1	AE50-30-11 24V DC	1SBL359001R8111	
30	65	115			AE63-30-11 24V DC	1SBL379001R8111	
37	75	125			AE75-30-11 24V DC	1SBL419001R8111	
						Product Hierarchy 1700001	
45	96	145	1	1	AE95-30-11 24V DC	1SFL439001R8111	
55	110	160			AE110-30-11 24V DC	1SFL459001R8111	

### AF50 ... AF750 Contactors

AC-3 400V kW	AC-3 400V A	AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700003	
						Order Code	Price
22	50	100	1	1	AF50-30-11 20-60V DC	1SBL357001R7211	
30	65	115			AF63-30-11 20-60V DC	1SBL377001R7211	
37	75	125			AF75-30-11 20-60V DC	1SBL417001R7211	
						Product Hierarchy 1700001	
45	96	145	1	1	AF95-30-11 20-60V DC	1SFL437001R7211	
55	110	160			AF110-30-11 20-60V DC	1SFL457001R7211	
75	145	250			AF145-30-11 20-60V DC	1SFL477001R7211	
90	185	275			AF185-30-11 20-60V DC	1SFL497001R7211	
110	210	350			AF210-30-11 20-60V DC	1SFL517001R7211	
140	260	400			AF260-30-11 20-60V DC	1SFL537001R7211	
160	305	500			AF300-30-11 20-60V DC	1SFL557001R7211	
200	400	600			AF400-30-11 20-60V DC	1SFL577001R6811	
250	460	700			AF460-30-11 20-60V DC	1SFL597001R6811	
315	580	800			AF580-30-11 20-60V DC	1SFL617001R6811	
400	750	1050			AF750-30-11 20-60V DC	1SFL637001R6811	



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# AF09 ... AF38 4 pole contactors

AC/DC operated

1



## AF09 ... AF38 Contactors

IEC AC1 A	Main Poles		Auxiliary		Description	Product Hierarchy 1700009	
	NO	NC	NO	NC		Order Code	Price
25	2	2	-	-	AF09-22-00-11 24-60V50/60HZ 20-60VDC	1SBL137501R1100	
					AF09-22-00-12 48-130V50/60HZ-DC	1SBL137501R1200	
					AF09-22-00-13 100-250V50/60HZ-DC	1SBL137501R1300	
					AF09-22-00-14 250-500V50/60HZ-DC	1SBL137501R1400	
					AF09Z-22-00-21 24-60V50/60HZ 20-60VDC	1SBL136501R2100	
	4	0	-	-	AF09-40-00-11 24-60V50/60HZ 20-60VDC	1SBL137201R1100	
					AF09-40-00-12 48-130V50/60HZ-DC	1SBL137201R1200	
					AF09-40-00-13 100-250V50/60HZ-DC	1SBL137201R1300	
					AF09-40-00-14 250-500V50/60HZ-DC	1SBL137201R1400	
					AF09Z-40-00-20 12-20VDC	1SBL136201R2000	
				AF09Z-40-00-21 24-60V50/60HZ 20-60VDC	1SBL136201R2100		
30	2	2	-	-	AF16-22-00-11 24-60V50/60HZ 20-60VDC	1SBL177501R1100	
					AF16-22-00-12 48-130V50/60HZ-DC	1SBL177501R1200	
					AF16-22-00-13 100-250V50/60HZ-DC	1SBL177501R1300	
					AF16-22-00-14 250-500V50/60HZ-DC	1SBL177501R1400	
					AF16Z-22-00-21 24-60V50/60HZ 20-60VDC	1SBL176501R2100	
	4	0	-	-	AF16-40-00-11 24-60V50/60HZ 20-60VDC	1SBL177201R1100	
					AF16-40-00-12 48-130V50/60HZ-DC	1SBL177201R1200	
					AF16-40-00-13 100-250V50/60HZ-DC	1SBL177201R1300	
					AF16-40-00-14 250-500V50/60HZ-DC	1SBL177201R1400	
					AF16Z-40-00-20 12-20VDC	1SBL176201R2000	
				AF16Z-40-00-21 24-60V50/60HZ 20-60VDC	1SBL176201R2100		
45	2	2	-	-	AF26-22-00-11 24-60V50/60HZ 20-60VDC	1SBL237501R1100	
					AF26-22-00-13 100-250V50/60HZ-DC	1SBL237501R1300	
	4	0	-	-	AF26-40-00-11 24-60V50/60HZ 20-60VDC	1SBL237201R1100	
					AF26-40-00-12 48-130V50/60HZ-DC	1SBL237201R1200	
					AF26-40-00-13 100-250V50/60HZ-DC	1SBL237201R1300	
					AF26-40-00-14 250-500V50/60HZ-DC	1SBL237201R1400	
				AF26Z-40-00-21 24-60V50/60HZ 20-60VDC	1SBL236201R2100		
55	2	2	-	-	AF38-22-00-11 24-60V50/60HZ 20-60VDC	1SBL297501R1100	
					AF38-22-00-13 100-250V50/60HZ-DC	1SBL297501R1300	
	4	0	-	-	AF38-40-00-11 24-60V50/60HZ 20-60VDC	1SBL297201R1100	
					AF38-40-00-13 100-250V50/60HZ-DC	1SBL297201R1300	
					AF38Z-40-00-21 24-60V50/60HZ 20-60VDC	1SBL296201R2100	



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# A45 ... A75 4 pole contactors

## AC operated



### A45 ... A75 Contactors

IEC AC1 A	Main Poles		Auxiliary		Description	Product Hierarchy 1700003	
	NO	NC	NO	NC		Order Code	Price
70	2	2	-	-	A45-22-00 24v 50Hz	1SBL331501R8100	
					A45-22-00 110v 50Hz	1SBL331501R8400	
					A45-22-00 220-230v 50Hz	1SBL331501R8000	
					A45-22-00 230-240v 50Hz	1SBL331501R8800	
					A45-22-00 400-415v 50Hz	1SBL331501R8600	
	4	0	-	-	A45-40-00 24v 50Hz	1SBL331201R8100	
					A45-40-00 110v 50Hz	1SBL331201R8400	
					A45-40-00 220-230V 50Hz	1SBL331201R8000	
					A45-40-00 230-240v 50Hz	1SBL331201R8800	
					A45-40-00 400-415v 50Hz	1SBL331201R8600	
100	4	0	-	-	A50-40-00 24v 50Hz	1SBL351201R8100	
					A50-40-00 110V 50/60Hz	1SBL351201R8400	
					A50-40-00 220-230V 50Hz	1SBL351201R8000	
					A50-40-00 230-240v 50Hz	1SBL351201R8800	
					A50-40-00 400-415v 50Hz	1SBL351201R8600	
125	2	2	-	-	A75-22-00 24v 50Hz	1SBL411501R8100	
					A75-22-00 110v 50Hz	1SBL411501R8400	
					A75-22-00 220-230v 50Hz	1SBL411501R8000	
					A75-22-00 230-240v 50Hz	1SBL411501R8800	
					A75-22-00 400-415v 50Hz	1SBL411501R8600	
	4	0	-	-	A75-40-00 24V 50Hz Contactor	1SBL411201R8100	
					A75-40-00 110V 50/60Hz	1SBL411201R8400	
					A75-40-00 220-230V 50Hz	1SBL411201R8000	
					A75-40-00 230-240v 50Hz	1SBL411201R8800	
					A75-40-00 400-415v 50Hz	1SBL411201R8600	

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# EK110 ... EK1000 4 pole contactors

## AC operated

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EK 175-40-11

1SBC573412F0001



EK 370-40-11

1SBC573432F0001



EK 1000-40-11

1SFT190109-086C2

### EK110 ... EK1000 Contactors

AC-1 40°C A	Aux NO	Aux NC	Description	Product Hierarchy 1700002	
				Order Code	Price
200	1	1	EK110-40-11 230-240V 50Hz	SK824440-AM	
250	1	1	EK150-40-11 230-240V 50Hz	SK824441-AM	
300	1	1	EK175-40-11 230-240V 50Hz	SK825440-AM	
350	1	1	EK210-40-11 230-240V 50Hz	SK825441-AM	
550	1	1	EK370-40-11 230-240V 50Hz	SK827040-AM	
800	1	1	EK550-40-11 230-240V 50Hz	SK827041-AM	
1000	1	1	EK1000-40-11 230-240V 50Hz	SK827044-AM	

#### Aux Contacts

CAL16-11A Side Mount Aux Block	SK829002-A	
CAL16-11B Side Mount Aux Block	SK829002-B	
CAL16-11C Side Mount Aux Block	SK829002-C	
CAL16-11D Side Mount Aux Block	SK829002-D	

#### Mechanical Interlocks

VH145	SK829071-A	
VH300	SK829071-B	
VH800	SK829070-F	

#### Terminal Shrouds

LT150-EK EK110 / EK150	SK178001-HB	
LT210-EK EK175 / EK210	SK178001-KB	
LT550-EK EK370 / EK550	SK178001-LB	

#### Connection Sets

BSS100 Connection Sets	SK829090-B	
BSS145 Connection Sets	SK829090-F	
BSS210 Connection Sets	SK829090-G	
BSS550 Connection Sets	SK829090-E	
BSS1000 Connection Sets	SK829090-H	

#### Suppressors

RC-EH300/415 110-415V AC Suppressor	SK829007-B	
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Other voltages available please consult us.



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# AE45 ... AE75 4 pole contactors

## DC operated



### AE45 ... AE75 Contactors

IEC AC1 A	Main Poles		Auxiliary		Description	Product Hierarchy 1700003	
	NO	NC	NO	NC		Order Code	Price
70	2	2	-	-	AE45-22-00 24V DC	1SBL339501R8100	
	4	0			AE45-40-00 24V DC	1SBL339201R8100	
100	4	0			AE50-40-00 24V DC	1SBL359201R8100	
125	2	2			AE75-22-00 24V DC	1SBL419501R8100	
	4	0			AE75-40-00 24V DC	1SBL339201R8100	



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# NF contactor relays

## AC/DC operated

1



NF Contactor Relays				Product Hierarchy 1700009	
NO	NC	IEC AC-15 Ratings	Part No	Order Code	Price
2	2	27-127v 50/60Hz 6A 220-240v 50/60Hz 4A 400- 440v 50/60Hz 3A 500v 50/60Hz 2A 690v 50/60Hz 2A	NF22E-11 24-60V50/60HZ 20-60VDC	1SBH137001R1122	
			NF22E-12 48-130V50/60HZ-DC	1SBH137001R1222	
			NF22E-13 100-250V50/60HZ-DC	1SBH137001R1322	
			NF22E-14 250-500V50/60HZ-DC	1SBH137001R1422	
3	1		NFZ22E-21 24-60V50/60HZ 20-60VDC	1SBH136001R2122	
			NF31E-12 48-130V50/60HZ-DC	1SBH137001R1231	
			NF31E-13 100-250V50/60HZ-DC	1SBH137001R1331	
			NF31E-14 250-500V50/60HZ-DC	1SBH137001R1431	
4	-		NFZ31E-21 24-60V50/60HZ 20-60VDC	1SBH136001R2131	
			NF40E-12 48-130V50/60HZ-DC	1SBH137001R1240	
			NF40E-13 100-250V50/60HZ-DC	1SBH137001R1340	
6	2		NFZ40E-21 24-60V50/60HZ 20-60VDC	1SBH136001R2140	
		NF62E-13 100-250V50/60HZ-DC	1SBH137001R1362		



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# AF09 ... AF38 main accessories for 3 & 4 pole contactors and relays



## Auxiliary contacts

### Front mounted instantaneous auxiliary contacts

For Contactor	NO	NC	Part No.	Product Hierarchy 1700009	
				Order Code	Price
AF09 ... AF38	1	0	CA4-10	1SBN010110R1010	
	1	0	CA4-10-T	1SBN010110T1010	
	0	1	CA4-01	1SBN010110R1001	
	0	1	CA4-01-T	1SBN010110T1001	
AF09 ... AF16-30-10	2	2	CA4-22M	1SBN010140R1122	
	3	1	CA4-31M	1SBN010140R1131	
	1	3	CA4-13M	1SBN010140R1113	
AF26 ... AF38-30-00	0	4	CA4-04M	1SBN010140R1104	
	2	2	CA4-22E	1SBN010140R1022	
	3	1	CA4-31E	1SBN010140R1031	
AF09 ... AF16-30-10	4	0	CA4-40E	1SBN010140R1040	
	0	4	CA4-04E	1SBN010140R1004	
	2	2	CA4-22U	1SBN010140R1322	
AF09 ... AF16-30-10	3	1	CA4-31U	1SBN010140R1331	
	4	0	CA4-40U	1SBN010140R1340	

### Front mounted auxiliary contacts with NO leading and NC lagging

AF09 ... AF38	1	0	CC4-10	1SBN010111R1010	
	0	1	CC4-01	1SBN010111R1001	

### Side mounted instantaneous auxiliary contacts

AF09 ... AF38	1	1	CAL4-11	1SBN010120R1011	
	1	1	CAL4-11-T	1SBN010120T1011	

### Front mounted instantaneous auxiliary contacts with A1/A2 terminal blocks

AF09 ... AF16-30-10	1	1	CAT4-11E	1SBN010151R1011	
AF26 ... AF38-30-00	1	1	CAT4-11M	1SBN010151R1111	
AF09 ... AF16-30-10	1	1	CAT4-11U	1SBN010151R1311	



## Mechanical and electrical interlock sets

Mechanical and Electrical Interlock Unit	VEM4	1SBN030111R1000	
Mechanical Interlock Unit	VM4	1SBN030105T1000	

## Connecting accessories for starting (3 pole contactors)

Connecting Link	BEA16-4	1SBN081306T1000	
Connecting Link	BEA38-4	1SBN082306T2000	
Connection kit for PSR24-30 and MS132	PSR30-MS132	1SFA896212R1001	
Connection Set for Manual Motor	BEA26-4	1SBN082306T1000	
Connection Set for Reversing Starter	BER16-4	1SBN081311R1000	
Connection Set for Reversing Starter	BER38-4	1SBN082311R1000	
Connection Set for Star-Delta Starter	BEY16-4	1SBN081313R2000	
Connection Set for Star-Delta Starter	BEY38-4	1SBN082713R2000	



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# Thermal & electronic overload relays for AF09 ... AF38 3-pole contactors

1



Electronic Overload Relays		Product Hierarchy 1700006	
Setting [A]	Part No	Order Code	Price
0.10...0.32 A	EF19-0.32	1SAX121001R1101	
0.30...1.00 A	EF19-1.0	1SAX121001R1102	
0.80...2.70 A	EF19-2.7	1SAX121001R1103	
1.90...6.30 A	EF19-6.3	1SAX121001R1104	
5.70...18.9 A	EF19-18.9	1SAX121001R1105	
9.00...30.0 A	EF45-30	1SAX221001R1101	
15.0...45.0 A	EF45-45	1SAX221001R1102	



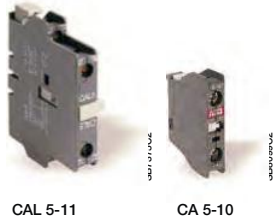
Thermal Overload Relays			
Setting [A]	Part No	Order Code	Price
0.10...0.13 A	TF42-0.13	1SAZ721201R1005	
0.13...0.17 A	TF42-0.17	1SAZ721201R1008	
0.17...0.23 A	TF42-0.23	1SAZ721201R1009	
0.23...0.31 A	TF42-0.31	1SAZ721201R1013	
0.31...0.41 A	TF42-0.41	1SAZ721201R1014	
0.41...0.55 A	TF42-0.55	1SAZ721201R1017	
0.55...0.74 A	TF42-0.74	1SAZ721201R1021	
0.74...1.00 A	TF42-1.0	1SAZ721201R1023	
1.00...1.30 A	TF42-1.3	1SAZ721201R1025	
1.30...1.70 A	TF42-1.7	1SAZ721201R1028	
1.70...2.30 A	TF42-2.3	1SAZ721201R1031	
2.30...3.10 A	TF42-3.1	1SAZ721201R1033	
3.10...4.20 A	TF42-4.2	1SAZ721201R1035	
4.20...5.70 A	TF42-5.7	1SAZ721201R1038	
5.70...7.60 A	TF42-7.6	1SAZ721201R1040	
7.60...10.0 A	TF42-10	1SAZ721201R1043	
10.0...13.0 A	TF42-13	1SAZ721201R1045	
13.0...16.0 A	TF42-16	1SAZ721201R1047	
16.0...20.0 A	TF42-20	1SAZ721201R1049	
20.0...24.0 A	TF42-24	1SAZ721201R1051	
24.0...29.0 A	TF42-29	1SAZ721201R1052	
29.0...35.0 A	TF42-35	1SAZ721201R1053	
35.0...38.0 A	TF42-38	1SAZ721201R1055	



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# Main accessories for A45 ... AF1650 3 & 4 pole contactors



CAL 5-11

CA 5-10



TP 40 DA



TE5S-240



VE 5-1



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## Auxiliary Contacts [Add on Contacts A45 - A75](#)

Description	Product Hierarchy 1700003	
	Order Code	Price
CA5-04E Top Mount Aux Block	1SBN010040R1004	
CA5-04N Top Mount Aux Block	1SBN010040R1204	
CA5-10 Top Mount Aux Block	1SBN010010R1010	
CA5-22E Aux. Contacts	1SBN010040R1022	
CA5-22M Top Mount Aux Block	1SBN010040R1122	
CA5-22N Top Mount Aux Block	1SBN010040R1222	
CA5-31E Top Mount Aux Block	1SBN010040R1031	
CA5-31M Top Mount Aux Block	1SBN010040R1131	
CA5-40E Top Mount Aux Block	1SBN010040R1040	
CA5-40N Top Mount Aux Block	1SBN010040R1240	
CAL5-11B Side Mount Aux Block	1SBN010420R3311	
CAL5-11 Side Mount Aux Block	1SBN010020R1011	
CB5-10 Start Contact	1SBN010013R1010	
BA5.50 pkt 50 markers for a range cont	1SBN110000R1000	

## [Add on Contacts A95 ... A110](#)

	Product Hierarchy 1700001	
CAL18-11 Side Mount Aux Block	1SFN010720R1011	
CAL18-11B Side Mount Aux Block	1SFN010720R3311	

## [Add on Timers A45 ... A75](#)

	Product Hierarchy 1700003	
TP180DA Pneumatic Timer 10-180s On Delay	1SBN020300R1001	
TP180IA Pneumatic Timer 10-180s OffDelay	1SBN020301R1001	
TP40DA Pneumatic Timer 0.1-40s On Delay	1SBN020300R1000	
TP40IA Pneumatic Timer 0.1-40s Off Delay	1SBN020301R1000	

## Star Delta Timers

TE5S-120 Star/Delta Timer 110/120V AC	1SBN020010R1002	
TE5S-24 Star/Delta Timer 24V AC/DC	1SBN020010R1001	
TE5S-240 Star/Delta Timer 220/240V AC	1SBN020010R1003	
TE5S-440 Star/Delta Timer 380/440V AC	1SBN020010R1004	

## Mechanical Interlocks [A45 ... A110](#)

VE5-2	1SBN030210R1000	
WB75A 24V latching block	FPTN372726R1001	

## [A110>](#)

	Product Hierarchy 1700001	
VM300/460H	1SFN035100R1000	
VM300H	1SFN034700R1000	
VM750H	1SFN035700R1000	



# Main accessories for A45 ... AF1650 3 & 4 pole contactors

1



RV 5/50

## Suppressors

Description	Product Hierarchy 1700003	
	Order Code	Price
RC5-2/133 50-133VAC	1SBN050200R1001	
RC5-2/250 110-250VAC	1SBN050200R1002	
RC5-2/50 24-50VAC	1SBN050200R1000	
RT5/150 77-150V DC	1SBN050020R1003	
RT5/32 12-32V DC	1SBN050020R1000	
RV5/250 110-250V AC/DC	1SBN050010R1002	
RV5/50 24-50V AC/DC	1SBN050010R1000	
RV5/440 250-440V AC/DC	1SBN050010R1003	
RA5-1 Interface Relay	1SBN060300R1000	



LT...-AC

1SFS9809-019C3

## Terminal Shourds

Description	Product Hierarchy 1700001	
	Order Code	Price
LT185-AC	1SFN124701R1000	
LT185-AL	1SFN124703R1000	
LT185-AY	1SFN124704R1000	
LT200/A	1SAZ401901R1001	
LT200E E200DU	1SAX501904R0001	
LT300-AC	1SFN125101R1000	
LT300-AL	1SFN125103R1000	
LT320E E320DU	1SAX601904R0001	
LT460-AC	1SFN125701R1000	
LT460-AL	1SFN125703R1000	
LT500E E500DU	1SAX701904R0001	
LT750-AC	1SFN126101R1000	
LT750-AL	1SFN126103R1000	

## Terminal Kits

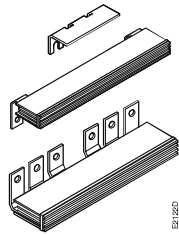
LW185 Terminal Enlargement	1SFN074707R1000	
LW300 Terminal Enlargement	1SFN075107R1000	
LD110 Terminal Extension (Pack 1)	1SFN074308R1000	
LX300 Terminal Extension	1SFN075110R1000	



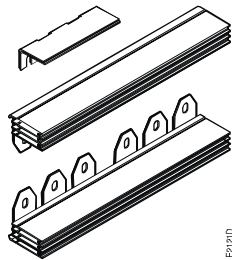
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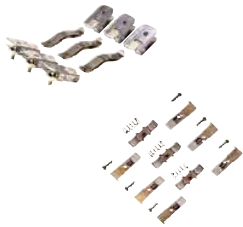
# Main accessories for A45 ... AF1650 3 & 4 pole contactors



BED 185



BED 400



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## Connection Sets A50 - A75

Description	Product Hierarchy 1700003	
	Order Code	
BEY40-2 Star/Delta Main/Delta/Star Connection Set	1SBN082813R2000	
BED50 Star/Delta Connection Set A30-A63	1SBN083503R1000	
BED75 Star/Delta Connection Set A50-A75	1SBN084103R1000	
BES75-40 Reversing Contactors A(E)45-75	1SBN083302R1000	

## Connection Sets A95>

Description	Product Hierarchy 1700001	
	Order Code	
BED95 Star/Delta Connection Set	1SFN084303R1000	
BED110 Star/Delta Connection Set	1SFN084503R1000	
BED145A Star/Delta Connection Set	1SFN084703R1000	
BED210 Star/Delta Connection Set	1SFN085103R1000	
LY110 Connecting Strip 3P	1SFN074303R1000	
LY185 Connecting Strip 3P	1SFN074703R1000	

## Spare Coils Spare Coils A45 - A75

Description	Product Hierarchy 1700003	
	Order Code	
ZA75 110V 50HZ Coil	1SBN153510R8406	
ZA75 230-240V 50HZ Coil	1SBN153510R8806	
ZA75 24V 50/60HZ COIL	1SBN153510R8106	
ZA75 400-415V 50HZ Coil	1SBN153510R8606	

## Spare Coils A110>

Description	Product Hierarchy 1700001	
	Order Code	
ZA110 110V 50/60Hz Coil	1SFN154310R8406	
ZA110 400-415V 50Hz Coil	1SFN154310R8606	
ZA185 110V 50/60Hz Coil	1SFN154710R8406	

## Spare Contact Sets A50 - A95

Description	Product Hierarchy 1700003	
	Order Code	
ZL50 Main Contact Set	1SBN163503R1000	
ZL95 Main Contact Set	1SFN164303R1000	

## Spare Contact Sets A110>

Description	Product Hierarchy 1700001	
	Order Code	
ZL110 Main Contact Set	1SFN164503R1000	
ZL145 Main Contact Set	1SFN164703R1000	
ZL185 Main Contact Set	1SFN164903R1000	
ZL210 Main Contact Set	1SFN165103R1000	
ZL260 Main Contact Set	1SFN165303R1000	
ZL300 Main Contact Set	1SFN165503R1000	
ZL400 Main Contact Set	1SFN165703R1000	

## Spare Contact Sets EH300>

Description	Product Hierarchy 1700001	
	Order Code	
KZ300 Main Contact Set EH300	SK826200-A	
KZ550 Main Contact Set EH550	SK827200-C	

1

# Thermal & electronic overload relays for A50 ... AF750 3-pole contactors

1



TA 75 DU



TA 200 DU



TA 450 DU



E 320 DU

## Thermal O/L Relays, Class 10A

A50 - A75 AL50 - AF75

			Product Hierarchy 1700006	
For Contactors	Setting	Description	Order Code	Price
A50 ... A75 AL50 ... AF75	18 - 25A	TA75DU-25	1SAZ321201R1001	
	22 - 32A	TA75DU-32	1SAZ321201R1002	
	29 - 42A	TA75DU-42	1SAZ321201R1003	
	36 - 52A	TA75DU-52	1SAZ321201R1004	
	45 - 63A	TA75DU-63	1SAZ321201R1005	
	60 - 80A	TA75DU-80	1SAZ321201R1006	

A95 - A300 AF95 - AF110

			Product Hierarchy 1700007	
For Contactors	Setting	Description	Order Code	Price
A95 ... A110 AF95 ... AF110	29 - 42A	TA80DU-42	1SAZ331201R1003	
	36 - 52A	TA80DU-52	1SAZ331201R1004	
	45 - 63A	TA80DU-63	1SAZ331201R1005	
	60 - 80A	TA80DU-80	1SAZ331201R1006	
	65 - 90A	TA110DU-90	1SAZ411201R1001	
	80 - 110A	TA110DU-110	1SAZ411201R1002	
A145 ... A185	66 - 90A	TA200DU-90	1SAZ421201R1001	
	80 - 110A	TA200DU-110	1SAZ421201R1002	
	100 - 135A	TA200DU-135	1SAZ421201R1003	
	110 - 150A	TA200DU-150	1SAZ421201R1004	
	130 - 175A	TA200DU-175	1SAZ421201R1005	
A210 ... A300	150 - 200A	TA200DU-200	1SAZ421201R1006	
	130 - 185A	TA450DU-185	1SAZ511201R1001	
	165 - 235A	TA450DU-235	1SAZ511201R1002	
	220 - 310A	TA450DU-310	1SAZ511201R1003	

A145 - A300 AF400 - AF750

A145 ... A185	60 - 200A	E200DU200	1SAX511001R1101	
A210 ... A300	100 - 320A	E320DU320	1SAX521001R1101	
AF400 ... AF460	150 - 500A	E500DU500	1SAX711001R1101	
AF580 ... AF750	250 - 800A	E800DU800	1SAX811001R1101	

## Separate Mounting Kits

		Product Hierarchy 1700006	
For Overload Relays	Description	Order Code	
TA42, TA75, TA80 ...	DB80	1SAZ301110R0001	
E140DU	DB140E	1SAX301110R1002	

TA110 - TA450 E500

		Product Hierarchy 1700007	
For Overload Relays	Description	Order Code	
TA110, TA200 ...	DB200	1SAZ401110R0001	
TA450DU/SU ...	DT450/A300	1SAZ501902R1001	
E500DU	DT500/AF460L	1SAX701902R1001	



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# Mini contactors

## 3 - 4 Pole contactors and relays



B6-30-10



B6-30-10F



B6-30-10P



B7-30-10



B7-40-10



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AC3 380/415v		Aux Contacts		Description	Product Hierarchy 1700004	
kW	A	NO	NC		Order Code	Price

### Contactors

#### 3 pole contactors • Flat Pin Terminals

kW	A	NO	NC	Description	Order Code	Price
4	16	-	1	B6-30-01 230AC	GJL1211001R8010	
				B6-30-01 110AC	GJL1211001R8014	
				B6-30-01 24AC	GJL1211001R0011	
				B6-30-01-F 220AC	GJL1211003R8010	
		B6-30-01-F 110AC •	GJL1211003R8014			
		B6-30-01-F 24AC •	GJL1211003R0011			
		1	-	B6-30-10 110AC	GJL1211001R8104	
				B6-30-10 230AC	GJL1211001R8100	
B6-30-10 24AC	GJL1211001R0101					
B6-30-10 400AC	GJL1211001R8105					

#### 4 pole contactors • Flat Pin Terminals

kW	A	NO	NC	Description	Order Code	Price
4	16	-	-	B6-40-00 110AC	GJL1211201R8004	
				B6-40-00 230AC	GJL1211201R8000	
				B6-40-00 24AC	GJL1211201R0001	
				B6-40-00-F 230AC •	GJL1211203R8000	

#### 3 pole contactors

kW	A	NO	NC	Description	Order Code	Price
5.5	20	-	1	B7-30-01 230AC	GJL1311001R8010	
				B7-30-10 110AC	GJL1311001R8104	
		1	-	B7-30-10 230AC	GJL1311001R8100	
				B7-30-10 24AC	GJL1311001R0101	

#### 3 pole DC contactors • Flat Pin Terminals

kW	A	NO	NC	Description	Order Code	Price
4	16	-	1	BC6-30-01 110DC	GJL1213001R0014	
				BC6-30-01 24DC	GJL1213001R0011	
				BC6-30-01-F 24DC •	GJL1213003R0011	
		1	-	BC6-30-10 24DC	GJL1213001R0101	
				BC6-30-10-1.4 24DC	GJL1213001R8101	
				BC7-30-10 24DC	GJL1313001R0101	

### Compact reversing contactors

kW	A	NO	NC	Description	Order Code	Price
-	-	1	-	VB6-30-01 110AC	GJL1211901R8014	
				VB6-30-10 110AC	GJL1211901R8104	
				VB6-30-10 230AC	GJL1211901R8100	
				VB6-30-10 24AC	GJL1211901R0101	
				VB6A-30-10 230AC	GJL1211911R8100	
				VBC6-30-10 24DC	GJL1213901R0101	
		-	-	VB6A-40-00 220-240V 40-450HZ	GJL1211911R8000	

### Mini contactor relays

kW	A	NO	NC	Description	Order Code	Price
-	-	2	2	K6-22Z 110AC	GJH1211001R8224	
				K6-22Z 230AC	GJH1211001R8220	
		3	1	K6-31Z 230AC	GJH1211001R8310	
				KC6-22Z 110DC	GJH1213001R0224	
		2	2	KC6-22Z 24DC	GJH1213001R0221	

# Mini contactors

## Thermal overloads and accessories

1



### Thermal Overload Relays

Setting [A]	Part No	Product Hierarchy 1700006	
		Order Code	Price
0.10...0.13 A	T16-0.13	1SAZ711201R1005	
0.13...0.17 A	T16-0.17	1SAZ711201R1008	
0.17...0.23 A	T16-0.23	1SAZ711201R1009	
0.23...0.31 A	T16-0.31	1SAZ711201R1013	
0.31...0.41 A	T16-0.41	1SAZ711201R1014	
0.41...0.55 A	T16-0.55	1SAZ711201R1017	
0.55...0.74 A	T16-0.74	1SAZ711201R1021	
0.74...1.00 A	T16-1.0	1SAZ711201R1023	
1.00...1.30 A	T16-1.3	1SAZ711201R1025	
1.30...1.70 A	T16-1.7	1SAZ711201R1028	
1.70...2.30 A	T16-2.3	1SAZ711201R1031	
2.30...3.10 A	T16-3.1	1SAZ711201R1033	
3.10...4.20 A	T16-4.2	1SAZ711201R1035	
4.20...5.70 A	T16-5.7	1SAZ711201R1038	
5.70...7.60 A	T16-7.6	1SAZ711201R1040	
7.60...10.0 A	T16-10	1SAZ711201R1043	
10.0...13.0 A	T16-13	1SAZ711201R1045	
13.0...16.0 A	T16-16	1SAZ711201R1047	

### Accessories

Description	Product Hierarchy 1700003	
	Order Code	Price
LB6 Soldering receptacle 5-POL.	GJL1201902R0001	
BSM6-30 Reversing connecting link	GJL1201908R0001	
RV-BC6/60 Varistor	GHV2501902R0002	
CAF6-02M Top Mount Aux Block	GJL1201330R0011	
CAF6-11M Top Mount Aux Block	GJL1201330R0003	
CAF6-20M Top Mount Aux Block	GJL1201330R0007	
LB6 Soldering receptacle 5-POL.	GJL1201902R0001	
BSM6-30 Reversing connecting link	GJL1201908R0001	



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# Manual motor starters

## MS116 ... M495



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### Manual Motor Starter

MS116	Setting	Product Hierarchy 1800001	
		Order Code	Price
MS116-0.16	0.1 ... 0.16A	1SAM250000R1001	
MS116-0.25	0.16 ... 0.25A	1SAM250000R1002	
MS116-0.4	0.25 ... 0.4A	1SAM250000R1003	
MS116-0.63	0.4 ... 0.63A	1SAM250000R1004	
MS116-1.0	1.0 ... 1.0A	1SAM250000R1005	
MS116-1.6	1.0 ... 1.6A	1SAM250000R1006	
MS116-2.5	1.6 ... 2.5A	1SAM250000R1007	
MS116-4	2.5 ... 4A	1SAM250000R1008	
MS116-6.3	4.0 ... 6.3A	1SAM250000R1009	
MS116-10	6.3 ... 10A	1SAM250000R1010	
MS116-12	8.0 ... 12A	1SAM550000R1010	
MS116-16	10 ... 16A	1SAM250000R1011	
MS116-20	16 ... 20A	1SAM250000R1013	
MS116-25	20 ... 25A	1SAM250000R1014	
MS116-32	25 ... 32A	1SAM250000R1015	

MS132	Setting	Product Hierarchy 1800001	
		Order Code	Price
MS132-0.16	0.1 ... 0.16A	1SAM350000R1001	
MS132-0.25	0.16 ... 0.25A	1SAM350000R1002	
MS132-0.4	0.25 ... 0.4A	1SAM350000R1003	
MS132-0.63	0.4 ... 0.63A	1SAM350000R1004	
MS132-1.0	1.0 ... 1.0A	1SAM350000R1005	
MS132-1.6	1.0 ... 1.6A	1SAM350000R1006	
MS132-2.5	1.6 ... 2.5A	1SAM350000R1007	
MS132-4.0	2.5 ... 4A	1SAM350000R1008	
MS132-6.3	4.0 ... 6.3A	1SAM350000R1009	
MS132-10	6.3 ... 10A	1SAM350000R1010	
MS132-12	8.0 ... 12A	1SAM350000R1012	
MS132-16	10 ... 16A	1SAM350000R1011	
MS132-20	16 ... 20A	1SAM350000R1013	
MS132-25	20 ... 25A	1SAM350000R1014	
MS132-32	25 ... 32A	1SAM350000R1015	

MS450 - 495	Setting	Product Hierarchy 1800001	
		Order Code	Price
MS450-40	28 ... 40A	1SAM450000R1005	
MS450-45	36 ... 45A	1SAM450000R1006	
MS450-50	40 ... 50A	1SAM450000R1007	
MS495-63	45 ... 63A	1SAM550000R1007	
MS495-75	57 ... 75A	1SAM550000R1008	
MS495-100	80 ... 100A	1SAM550000R1010	

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# Manual motor starters

## Accessories

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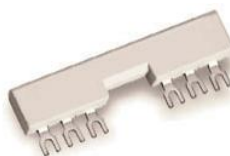
### Accessories

#### MS116 ... MS132

	Product Hierarchy 1800001	
	Order Code	Price
AA1-24 Shunt Trip 24V	1SAM201910R1001	
AA1-110 Shunt Trip 100V	1SAM201910R1002	
AA1-230 Shunt Trip 220-240V	1SAM201910R1003	
UA1-24	1SAM201904R1001	
UA1-120	1SAM201904R1004	
UA1-230	1SAM201904R1005	
HKF1-11 Front	1SAM201901R1001	
HK1-11 Side	1SAM201902R1001	
HK1-20 Side	1SAM201902R1002	
HK1-02 Side	1SAM201902R1003	
SK1-11 Signal	1SAM201903R1001	
SK1-20 Signal	1SAM201903R1002	
SK1-02 Signal	1SAM201903R1003	
BEA7/116 Connection Module	1SBN080906R1000	
BEA16/116 Connection Module	1SBN081406R1000	

#### MS450 ... MS495

HK4-11 Front Mount Aux Block	1SAM401901R1001	
BEA40/450 Connection Module	1SBN083206R1000	
PSR60-105 & MS495 Connection kit	1SAM450000R1006	



### 3-phase busbar up to 65A

MS116	MS132	No. MMS	Aux Contacts	Part no	Product Hierarchy 1800001	
					Order Code	Price
•	•	2	0	PS1-2-0-65	1SAM201906R1102	
•	•	3	0	PS1-3-0-65	1SAM201906R1103	
•	•	4	0	PS1-4-0-65	1SAM201906R1104	
•	•	5	0	PS1-5-0-65	1SAM201906R1105	
•	•	2	1	PS1-2-1-65	1SAM201906R1112	
•	•	3	1	PS1-3-1-65	1SAM201906R1113	
•	•	4	1	PS1-4-1-65	1SAM201906R1114	
•	•	5	1	PS1-5-1-65	1SAM201906R1115	
•	•	2	2	PS1-2-2-65	1SAM201906R1122	
•	•	3	2	PS1-3-2-65	1SAM201906R1123	
•	•	4	2	PS1-4-2-65	1SAM201906R1124	
•	•	5	2	PS1-5-2-65	1SAM201906R1125	

### 3-phase feeder terminals

65A	Remarks	mm <sup>2</sup>	Part no	Product Hierarchy 1800001	
				Order Code	Price
•	flat	25mm <sup>2</sup>	S1-M1-25	1SAM201907R1101	
•	high		S1-M2-25	1SAM201907R1102	



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# Manual motor starters

## Accessories

Accessories	Part No	Product Hierarchy 1800001	
		Order Code	Price
Shaft 85mm	OXS6X85	1SCA101647R1001	
Shaft 105mm	OXS6X105	1SCA108043R1001	
Shaft 130mm	OXS6X130	1SCA101655R1001	
Shaft 180mm	OXS6X180	1SCA101659R1001	
MSHD-LB Handle,IP64,black for MS116	MSHD-LB	1SAM201920R1001	
MSHD-LY Handle,IP64,red/yellow for MS116	MSHD-LY	1SAM201920R1002	
MSHD-LTB Hndl w.trip,IP64,black,MS/MO132	MSHD-LTB	1SAM201920R1011	
MSHD-LTY w.trip,IP64,red/ylw,MS/MO132	MSHD-LTY	1SAM201920R1012	
MSMNO Driver w/o coding w.ScrewMS116&132	MSMN	1SAM101923R0002	
MSMN Driver w. Screw for MS116 & MS132	MSMNO	1SAM101923R0012	

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# Soft starters

## Overview

### Efficient PSE Range – World's first compact softstarter with Torque control

The latest addition to the ABB softstarter family is the efficient PSE range. This softstarter has been equipped with all the most important features making it a very efficient choice. During the development process, great focus has been put into making sure that both the softstarter and the process are even more reliable. Further more, the softstarter has been equipped with built-in by-pass to reduce the wiring and also with a back-lit display to provide a hassle free and easy set-up and monitoring.

### The complete range of Softstarters

The ABB softstarter portfolio now consists of 4 different ranges making it possible to find a suitable softstarter for almost all possible applications and motor sizes all the way up to 1800A. The softstarter family consists of the Compact PSR, the Flexible PSS, the Efficient PSE and the Advanced PST(B) range.

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### Semiconductor fuses changed to knife type

The Bussmann semiconductor fuses, recommended to be used together with PSS, PSE and PST(B) softstarters have been changed from screw fixing (DIN43 653) to knife fixing (DIN43 620). This will make it possible to use the standard OS type switch fuses from ABB.



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# Soft starters

## Basic PSR and PSE



PSR3 ... PSR16

### PSR Basic Softstarts

Description	Part No	Product Hierarchy 1800002	
		Order Code	Price
Basic Softstarter 3A	PSR3-600-70	1SFA896103R7000	
Basic Softstarter 6A	PSR6-600-70	1SFA896104R7000	
Basic Softstarter 9A	PSR9-600-70	1SFA896105R7000	
Basic Softstarter 12A	PSR12-600-70	1SFA896106R7000	
Basic Softstarter 16A	PSR16-600-70	1SFA896107R7000	
Basic Softstarter 25A	PSR25-600-70	1SFA896108R7000	
Basic Softstarter 30A	PSR30-600-70	1SFA896109R7000	
Basic Softstarter 37A	PSR37-600-70	1SFA896110R7000	
Basic Softstarter 45A	PSR45-600-70	1SFA896111R7000	
Basic Softstarter 60A	PSR60-600-70	1SFA896112R7000	
Basic Softstarter 72A	PSR72-600-70	1SFA896113R7000	
Basic Softstarter 85A	PSR85-600-70	1SFA896114R7000	
Basic Softstarter 105A	PSR105-600-70	1SFA896115R7000	
Connection Kit PSR3- 6 with MS116 or MS132	PSR16-MS116	1SFA896211R1001	
Connection kit PSR25-30 with MS132 12 to 32	PSR30-MS132	1SFA896212R1001	
Connection Kit PSR37-45 and MS450	PSR45-450	1SFA896213R1001	
Connection Kit PSR60-105 and MS495	PSR105-MS495	1SAM501903R1001	
Fan for PSR3 to PSR45	PSR-FAN3-45A	1SFA896311R1001	
Fan for PSR60 to PSR105	PSR-FAN60-105A	1SFA896313R1001	

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### PSE Basic Softstarts with Overload

Description	Part No	Product Hierarchy 1800002	
		Order Code	Price
Basic Softstarter with Overload 18A	PSE18-600-70	1SFA897101R7000	
Basic Softstarter with Overload 25A	PSE25-600-70	1SFA897102R7000	
Basic Softstarter with Overload 30A	PSE30-600-70	1SFA897103R7000	
Basic Softstarter with Overload 37A	PSE37-600-70	1SFA897104R7000	
Basic Softstarter with Overload 45A	PSE45-600-70	1SFA897105R7000	
Basic Softstarter with Overload 60A	PSE60-600-70	1SFA897106R7000	
Basic Softstarter with Overload 72A	PSE72-600-70	1SFA897107R7000	
Basic Softstarter with Overload 85A	PSE85-600-70	1SFA897108R7000	
Basic Softstarter with Overload 105A	PSE105-600-70	1SFA897109R7000	
Basic Softstarter with Overload 142A	PSE142-600-70	1SFA897110R7000	
Basic Softstarter with Overload 170A	PSE170-600-70	1SFA897111R7000	
Basic Softstarter with Overload 210A	PSE210-600-70	1SFA897112R7000	
Basic Softstarter with Overload 250A	PSE250-600-70	1SFA897113R7000	
Basic Softstarter with Overload 300A	PSE300-600-70	1SFA897114R7000	
Basic Softstarter with Overload 370A	PSE370-600-70	1SFA897115R7000	
External Keypad for PSE Range	PSEEK	1SFA897100R1001	



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# Soft starters

## Advanced PST

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PST30...PST72

### PST Advanced Softstarts with Overload

Description	Part No	Product Hierarchy 1600001	
		Order Code	Price
Advanced Softstarter 30A	PST30-600-70	1SFA894002R7000	
Advanced Softstarter 37A	PST37-600-70	1SFA894003R7000	
Advanced Softstarter 44A	PST44-600-70	1SFA894004R7000	
Advanced Softstarter 50A	PST50-600-70	1SFA894005R7000	
Advanced Softstarter 60A	PST60-600-70	1SFA894006R7000	
Advanced Softstarter 72A	PST72-600-70	1SFA894007R7000	
Advanced Softstarter 85A	PST85-600-70	1SFA894008R7000	
Advanced Softstarter 105A	PST105-600-70	1SFA894009R7000	
Advanced Softstarter 142A	PST142-600-70	1SFA894010R7000	
Advanced Softstarter 175A	PST175-600-70	1SFA894011R7000	
Advanced Softstarter 210A	PST210-600-70	1SFA894012R7000	
Advanced Softstarter 250A	PST250-600-70	1SFA894013R7000	
Advanced Softstarter 300A	PST300-600-70	1SFA894014R7000	
Advanced Softstarter 370A with Integrated Bypass	PSTB370-600-70	1SFA894015R7000	
Advanced Softstarter 470A with Integrated Bypass	PSTB470-600-70	1SFA894016R7000	
Advanced Softstarter 570A with Integrated Bypass	PSTB570-600-70	1SFA894017R7000	
Advanced Softstarter 720A with Integrated Bypass	PSTB720-600-70	1SFA894018R7000	
Advanced Softstarter 840A with Integrated Bypass	PSTB840-600-70	1SFA894019R7000	
Advanced Softstarter 1050A with Integrated Bypass	PSTB1050-600-70	1SFA894020R7000	
External Keypad kit for PST range	PSTEK	1SFA899003R1000	



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# Pilot devices - compact 22mm Pushbuttons



## Pushbuttons BLACK plastic bezel

Type	Contacts		Part No	Product Hierarchy 1300001	
	N/O	N/C		Order Code	Price
Flush momentary	1	-	CP1-10 ■-10	1SFA619100R101	1
	2	-	CP1-10 ■-20	1SFA619100R102	1
	-	1	CP1-10 ■-01	1SFA619100R104	1
	-	2	CP1-10 ■-02	1SFA619100R105	1
	1	1	CP1-10 ■-11	1SFA619100R107	1
Flush maintained	1	-	CP2-10 ■-10	1SFA619101R101	1
	2	-	CP2-10 ■-20	1SFA619101R102	1
	-	1	CP2-10 ■-01	1SFA619101R104	1
	-	2	CP2-10 ■-02	1SFA619101R105	1
	1	1	CP2-10 ■-11	1SFA619101R107	1
Extended momentary	1	-	CP3-10 ■-10	1SFA619102R101	1
	2	-	CP3-10 ■-20	1SFA619102R102	1
	-	1	CP3-10 ■-01	1SFA619102R104	1
	-	2	CP3-10 ■-02	1SFA619102R105	1
	1	1	CP3-10 ■-11	1SFA619102R107	1
Extended maintained	1	-	CP4-10 ■-10	1SFA619103R101	1
	2	-	CP4-10 ■-20	1SFA619103R102	1
	-	1	CP4-10 ■-01	1SFA619103R104	1
	-	2	CP4-10 ■-02	1SFA619103R105	1
	1	1	CP4-10 ■-11	1SFA619103R107	1

1

Select your colour by replacing 1 with a digit from the chart below

**Order example:**  
**Ex 1:** Type CP1-10■-10, to order color red replace ■ with R: CP1-10 R-10  
**Ex 2:** Order code 1SFA619100R101  
 To order color red replace 1 with 1: 1SFA619100R1011

Color codes								
	Red	Green	Yellow	Blue	White	Black	Grey	Clear
Type ■	R	G	Y	L	W	B	U	C
Order Code L	1	2	3	4	5	6	7	8



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# Pilot devices - compact 22mm Pushbuttons

1



Pushbuttons CHROME metal bezel				Product Hierarchy 1300001	
Type	Contacts		Part No	Order Code	Price
	N/O	N/C			
Flush momentary	1	-	CP1-30 ■-30	1SFA619100R301 <sup>1</sup>	
	2	-	CP1-30 ■-20	1SFA619100R302 <sup>1</sup>	
	-	1	CP1-30 ■-01	1SFA619100R304 <sup>1</sup>	
	-	2	CP1-30 ■-02	1SFA619100R305 <sup>1</sup>	
	1	1	CP1-30 ■-11	1SFA619100R307 <sup>1</sup>	
Flush maintained	1	-	CP2-30 ■-30	1SFA619101R301 <sup>1</sup>	
	2	-	CP2-30 ■-20	1SFA619101R302 <sup>1</sup>	
	-	1	CP2-30 ■-01	1SFA619101R304 <sup>1</sup>	
	-	2	CP2-30 ■-02	1SFA619101R305 <sup>1</sup>	
	1	1	CP2-30 ■-11	1SFA619101R307 <sup>1</sup>	
Extended momentary	1	-	CP3-30 ■-30	1SFA619102R301 <sup>1</sup>	
	2	-	CP3-30 ■-20	1SFA619102R302 <sup>1</sup>	
	-	1	CP3-30 ■-01	1SFA619102R304 <sup>1</sup>	
	-	2	CP3-30 ■-02	1SFA619102R305 <sup>1</sup>	
	1	1	CP3-30 ■-11	1SFA619102R307 <sup>1</sup>	
Extended maintained	1	-	CP4-30 ■-30	1SFA619103R301 <sup>1</sup>	
	2	-	CP4-30 ■-20	1SFA619103R302 <sup>1</sup>	
	-	1	CP4-30 ■-01	1SFA619103R304 <sup>1</sup>	
	-	2	CP4-30 ■-02	1SFA619103R305 <sup>1</sup>	
	1	1	CP4-30 ■-11	1SFA619103R307 <sup>1</sup>	

Select your colour by replacing <sup>1</sup> with a digit from the chart below

**Order example:**  
**Ex 1:** Type CP1-10■-10, to order color red replace ■ with R: CP1-10 R-10  
**Ex 2:** Order code 1SFA619100R101<sup>1</sup>  
 To order color red replace <sup>1</sup> with 1: 1SFA619100R1011

Color codes								
	Red	Green	Yellow	Blue	White	Black	Grey	Clear
Type ■	R	G	Y	L	W	B	U	C
Order Code <sup>1</sup>	1	2	3	4	5	6	7	8



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# Pilot devices - compact 22mm

## Illuminated pushbuttons



### Illuminated pushbuttons with integrated LED BLACK plastic bezel

Type	Voltage	N/O	N/C	Part No	Product Hierarchy 1300001	
					Order Code	Price
Flush momentary	24V AC/DC	1	-	CP1-11 ■-10	1SFA619100R111	1
Flush momentary red		-	1	CP1-11 R-01	1SFA619100R1141	
Extended momentary		1	-	CP3-11 ■-10	1SFA619102R111	1
Extended momentary red		-	1	CP3-11 R-01	1SFA619102R1141	
Flush momentary	110-130V AC/DC	1	-	CP1-12 ■-10	1SFA619100R121	1
Flush momentary red		-	1	CP1-12 R-01	1SFA619100R1241	
Extended momentary		1	-	CP3-12 ■-10	1SFA619102R121	1
Extended momentary red		-	1	CP3-12 R-01	1SFA619102R1241	
Flush momentary	220V AC/DC	1	-	CP1-13 ■-10	1SFA619100R131	1
Flush momentary red		-	1	CP1-13 R-01	1SFA619100R1341	
Extended momentary		1	-	CP3-13 ■-10	1SFA619102R131	1
Extended momentary red		-	1	CP3-13 R-01	1SFA619102R1341	
Flush maintained	24V AC/DC	1	-	CP2-11 ■-10	1SFA619101R111	1
Flush maintained red		-	1	CP2-11 R-01	1SFA619101R1141	
Extended maintained		1	-	CP4-11 ■-10	1SFA619101R111	1
Extended maintained red		-	1	CP4-11 R-01	1SFA619101R1141	
Flush maintained	110-130V AC/DC	1	-	CP2-12 ■-10	1SFA619101R121	1
Flush maintained red		-	1	CP2-12 R-01	1SFA619101R1241	
Extended maintained		1	-	CP4-12 ■-10	1SFA619101R121	1
Extended maintained red		-	1	CP4-12 R-01	1SFA619101R1241	
Flush maintained	220V AC/DC	1	-	CP2-13 ■-10	1SFA619101R131	1
Flush maintained red		-	1	CP2-13 R-01	1SFA619101R1341	
Extended maintained		1	-	CP4-13 ■-10	1SFA619101R131	1
Extended maintained red		-	1	CP4-13 R-01	1SFA619101R1341	

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Select your colour by replacing 1 with a digit from the chart below

**Order example:**  
**Ex 1:** Type CP1-10■-10, to order color red replace ■ with R: CP1-10 R-10  
**Ex 2:** Order code 1SFA619100R101\_   
 To order color red replace \_ with 1: 1SFA619100R1011

Color codes								
	●	●	●	●	○	●	●	○
Type ■	R	G	Y	L	W	B	U	C
Order Code □	1	2	3	4	5	6	7	8



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# Pilot devices - compact 22mm

## Illuminated pushbuttons

1



### Illuminated pushbuttons with integrated LED CHROME metal bezel

Type	Voltage	N/O	N/C	Part No	Product Hierarchy 1300001	
					Order Code	Price
Flush momentary	24V AC/DC	1	-	CP1-31 ■-10	1SFA619100R111	1
Flush momentary red		-	1	CP1-31 R-01	1SFA619100R1141	
Extended momentary		1	-	CP3-31 ■-10	1SFA619102R111	1
Extended momentary red		-	1	CP3-31 R-01	1SFA619102R1141	
Flush momentary	110-130V AC/DC	1	-	CP1-32 ■-10	1SFA619100R121	1
Flush momentary red		-	1	CP1-32 R-01	1SFA619100R1241	
Extended momentary		1	-	CP3-32 ■-10	1SFA619102R121	1
Extended momentary red		-	1	CP3-32 R-01	1SFA619102R3241	
Flush momentary	220V AC/DC	1	-	CP1-33 ■-10	1SFA619100R331	1
Flush momentary red		-	1	CP1-33 R-01	1SFA619100R1341	
Extended momentary		1	-	CP3-33 ■-10	1SFA619102R131	1
Extended momentary red		-	1	CP3-33 R-01	1SFA619102R1341	
Flush maintained	24V AC/DC	1	-	CP2-31 ■-10	1SFA619101R111	1
Flush maintained red		-	1	CP2-31 R-01	1SFA619101R1141	
Extended maintained		1	-	CP4-31 ■-10	1SFA619101R111	1
Extended maintained red		-	1	CP4-31 R-01	1SFA619101R1141	
Flush maintained	110-130V AC/DC	1	-	CP2-32 ■-10	1SFA619101R121	1
Flush maintained red		-	1	CP2-32 R-01	1SFA619101R1241	
Extended maintained		1	-	CP4-32 ■-10	1SFA619101R121	1
Extended maintained red		-	1	CP4-32 R-01	1SFA619101R1241	
Flush maintained	220V AC/DC	1	-	CP2-33 ■-10	1SFA619101R131	1
Flush maintained red		-	1	CP2-33 R-01	1SFA619101R1341	
Extended maintained		1	-	CP4-33 ■-10	1SFA619101R131	1
Extended maintained red		-	1	CP4-33 R-01	1SFA619101R1341	

Select your colour by replacing 1 with a digit from the chart below

**Order example:**  
**Ex 1:** Type CP1-10■-10, to order color red replace ■ with R: CP1-10 R-10  
**Ex 2:** Order code 1SFA619100R101\_   
 To order color red replace \_ with 1: 1SFA619100R1011

Color codes								
	Red	Green	Yellow	Blue	White	Black	Grey	Clear
Type ■	R	G	Y	L	W	B	U	C
Order Code □	1	2	3	4	5	6	7	8

# Pilot devices - compact 22mm

## Selector switches



### Selector switches 2 position BLACK plastic bezel

Type	Contacts		Part No	Product Hierarchy 1300001	
	N/O	N/C		Order Code	Price
Red Stay Put -BC	1	-	C2SS1-10 ■-10	1SFA619200R1011	
	2	-	C2SS1-10 ■-20	1SFA619200R1021	
	1	1	C2SS1-10 ■-11	1SFA619200R1071	
Black Stay Put -AC	1	0	C2SS2-10 ■-10	1SFA619201R1016	
	2	0	C2SS2-10 ■-20	1SFA619201R1026	
Red Stay Put -AC	1	1	C2SS2-10 ■-11	1SFA619201R1071	
Red Spring Return -BC	1	0	C2SS3-10 ■-10	1SFA619202R1011	
Black Spring Return -BC	2	0	C2SS3-10 ■-20	1SFA619202R1026	
Red Spring Return -BC	1	1	C2SS3-10 ■-11	1SFA619202R1071	

1

### Selector switches 3 position BLACK plastic bezel

Black Stay Put -ABC	2	-	C3SS1-10 ■-20	1SFA619210R1026	
Red Stay Put -ABC	1	1	C3SS1-10 ■-11	1SFA619210R1071	
Red Spring Return -ABC	2	-	C3SS2-10 ■-20	1SFA619211R1021	
Black Spring Return -ABC	1	1	C3SS2-10 ■-11	1SFA619211R1076	
Red Spring Return -BC	2	-	C3SS3-10 ■-20	1SFA619212R1021	
	1	1	C3SS3-10 ■-11	1SFA619212R1071	

### Selector switches 2 position CHROME metal bezel

Type	Contacts		Part No	Product Hierarchy 1300001	
	N/O	N/C		Order Code	Price
Red Stay Put -BC	1	-	C2SS1-30 ■-10	1SFA619200R3011	
	2	-	C2SS1-30 ■-20	1SFA619200R3021	
	1	1	C2SS1-30 ■-11	1SFA619200R3071	
Black Stay Put -AC	1	0	C2SS2-30 ■-10	1SFA619201R3016	
	2	0	C2SS2-30 ■-20	1SFA619201R3026	
Red Stay Put -AC	1	1	C2SS2-30 ■-11	1SFA619201R3071	
Red Spring Return -BC	1	0	C2SS3-30 ■-10	1SFA619202R3011	
Black Spring Return -BC	2	0	C2SS3-30 ■-20	1SFA619202R3026	
Red Spring Return -BC	1	1	C2SS3-30 ■-11	1SFA619202R3071	



### Selector switches 3 position CHROME metal bezel

Black Stay Put -ABC	2	-	C3SS1-30 ■-20	1SFA619210R3026	
Red Stay Put -ABC	1	1	C3SS1-30 ■-11	1SFA619210R3071	
Red Spring Return -ABC	2	-	C3SS2-30 ■-20	1SFA619211R3021	
Black Spring Return -ABC	1	1	C3SS2-30 ■-11	1SFA619211R3076	
Red Spring Return -BC	2	-	C3SS3-30 ■-20	1SFA619212R3021	
	1	1	C3SS3-30 ■-11	1SFA619212R3071	



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# Pilot devices - compact 22mm

## Emergency stops, pilot lights & enclosures

1



### Emergency stop buttons

Type	Contacts		Part No	Product Hierarchy 1300001	
	N/O	N/C		Order Code	Price
30mm Twist Release Red	-	1	CE3T-10R-01	1SFA619500R1041	
	-	2	CE3T-10R-02	1SFA619500R1051	
	1	1	CE3T-10R-11	1SFA619500R1071	
40mm Twist Release Red	-	1	CE4T-10R-01	1SFA619550R1041	
	-	2	CE4T-10R-02	1SFA619550R1051	
	1	1	CE4T-10R-11	1SFA619550R1071	
40mm Key Release Red	-	1	CE4K-10R-01	1SFA619552R1051	
	-	2	CE4K-10R-02	1SFA619552R1071	

### Pilot light complete

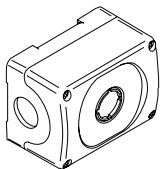


Type	Part No	Product Hierarchy 1300001	
		Order Code	Price
Integrated Led 24V AC/DC	CL502	1SFA619402R5021	
Integrated Led 110-130V AC	CL513	1SFA619402R5131	
Integrated Led 220V DC	CL520	1SFA619402R5201	
Integrated Led 230V AC	CL523	1SFA619402R5231	

### Pilot light lens only

Red	CL-100 R	1SFA619402R1001	
Green	CL-100 G	1SFA619402R1002	
Yellow	CL-100 Y	1SFA619402R1003	
Blue	CL-100 B	1SFA619402R1004	
White	CL-100 W	1SFA619402R1005	
Clear	CL-100 C	1SFA619402R1008	

### Enclosures



Type	Part No	Product Hierarchy 1300001	
		Order Code	Price
Enclosure 1 hole - yellow	CEPY1-0	1SFA619821R1000	
Enclosed E-Stop (twist release 2NO)	CEPY1-1001	1SFA619821R1001	
Enclosed E-Stop with shroud (twist release 2NC)	CEPY1-2001	1SFA619821R2001	
E-Stop shroud for compact enclosure	CA1-8053	1SFA619920R8053	



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# Pilot devices - modular 22mm

## Standard pushbuttons



### Standard pushbuttons BLACK plastic bezel

Standard pushbuttons BLACK plastic bezel			Product Hierarchy 1300001		
Type			Part No	Order Code	Price
Flush	Momentary	Non illuminated	MP1-10 ■	1SFA611100R100 <sup>1</sup>	
	Maintained		MP2-10 ■	1SFA611101R100 <sup>1</sup>	
	Momentary	Illuminated	MP1-11 ■	1SFA611100R110 <sup>1</sup>	
	Maintained		MP2-11 ■	1SFA611101R110 <sup>1</sup>	
Extended	Momentary	Non illuminated	MP3-10 ■	1SFA611102R100 <sup>1</sup>	
	Maintained		MP4-10 ■	1SFA611103R100 <sup>1</sup>	
	Momentary	Illuminated	MP3-11 ■	1SFA611102R110 <sup>1</sup>	
	Maintained		MP4-11 ■	1SFA611103R110 <sup>1</sup>	

1

### Standard pushbuttons CHROME plastic bezel

Flush	Momentary	Non illuminated	MP1-20 ■	1SFA611100R200 <sup>1</sup>	
	Maintained		MP2-20 ■	1SFA611101R200 <sup>1</sup>	
	Momentary	Illuminated	MP1-21 ■	1SFA611100R210 <sup>1</sup>	
	Maintained		MP2-21 ■	1SFA611101R210 <sup>1</sup>	
Extended	Momentary	Non illuminated	MP3-20 ■	1SFA611102R200 <sup>1</sup>	
	Maintained		MP4-20 ■	1SFA611103R200 <sup>1</sup>	
	Momentary	Illuminated	MP3-21 ■	1SFA611102R210 <sup>1</sup>	
	Maintained		MP4-21 ■	1SFA611103R210 <sup>1</sup>	



### Standard pushbuttons CHROME metal bezel

Flush	Momentary	Non illuminated	MP1-30 ■	1SFA611100R300 <sup>1</sup>	
	Maintained		MP2-30 ■	1SFA611101R300 <sup>1</sup>	
	Momentary	Illuminated	MP1-31 ■	1SFA611100R310 <sup>1</sup>	
	Maintained		MP2-31 ■	1SFA611101R310 <sup>1</sup>	
Extended	Momentary	Non illuminated	MP3-30 ■	1SFA611102R300 <sup>1</sup>	
	Maintained		MP4-30 ■	1SFA611103R300 <sup>1</sup>	
	Momentary	Illuminated	MP3-31 ■	1SFA611102R310 <sup>1</sup>	
	Maintained		MP4-31 ■	1SFA611103R310 <sup>1</sup>	

Select your colour by replacing <sup>1</sup> with a digit from the chart below

How to order standard operators:		Color codes			Contact blocks including holder with 3 blocks		
Description	Type	Order Code	Description	Type	Order Code		
• Non- illuminated operator + holder + contact block(s)	■	R	1 NO	MCBH-10	1SFA611605R1101		
		G	1 NC	MCBH-01	1SFA611605R1110		
		Y	2 NC	MCBH-02	1SFA611605R1120		
		L	2 NO	MCBH-20	1SFA611605R1102		
		W	1 NO+1 NC	MCBH-11	1SFA611605R1111		
		B	1 NO+2 NC	MCBH-12	1SFA611605R1121		
		U	Contact blocks				
		C	1 NO	MCB-10	1SFA611610R1001		
			1 NC	MCB-01	1SFA611610R1010		
			Separate holder for 3 blocks				
			Holder	MCBH-00	1SFA611605R1100		

Ordering example:  
 Ex 1: Type CP1-10■-10, to order color red replace ■ with R: CP1-10 R-10  
 Ex 2: Order code 1SFA619100R101<sup>1</sup>, to order color red replace <sup>1</sup> with 1: 1SFA619100R1011



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# Pilot devices - modular 22mm

## Double pushbuttons & selector switches

1



### Double pushbuttons BLACK plastic bezel

			Product Hierarchy 1300001		
Type			Part No	Order Code	Price
Flush	No text	Non illuminated	MPD1-11B	1SFA611130R1106	
	I/O		MPD2-11B	1SFA611131R1106	
Extended lower button	No text	Non illuminated	MPD12-11B	1SFA611141R1106	
	I/O		MPD13-11B	1SFA611142R1106	
	Start/stop		MPD15-11B	1SFA611144R1106	
	No text	Illuminated	MPD12-11C	1SFA611141R1108	
	I/O		MPD13-11C	1SFA611142R1108	
	Start/stop		MPD15-11C	1SFA611142R1108	



### Selectors switches BLACK plastic bezel

			Product Hierarchy 1300001		
Type			Part No	Order Code	Price
Three position	ABC	Short handle	M3SSC1-10B	1SFA611250R1006	
	BC		M3SSC3-10B	1SFA611252R1006	
	ABC	Long handle	M3SSC4-10B	1SFA611253R1006	
	BC		M3SSC6-10B	1SFA611255R1006	
Two position	BC maintained	Short handle	M2SS1-10 ■	1SFA611200R100 [1]	
	BC momentary		M2SS2-10 ■	1SFA611202R100 [1]	
	BC maintained	Long handle	M2SS4-10 ■	1SFA611203R100 [1]	
Two position illuminated	BC maintained	Short handle	M2SS1-11 ■	1SFA611200R110 [1]	
	AC maintained		M2SS2-11 ■	1SFA611201R110 [1]	
	BC momentary	Long handle	M2SS3-11 ■	1SFA611202R110 [1]	
	BC maintained		M2SS4-11 ■	1SFA611203R110 [1]	

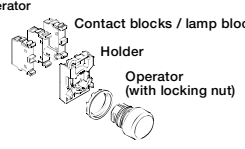


### Selectors switches CHROME metal bezel

Three position	ABC	Short handle	M3SSC1-10B	1SFA611250R3006	
	BC		M3SSC3-10B	1SFA611252R3006	
	ABC	Long handle	M3SSC4-10B	1SFA611253R1006	
	BC		M3SSC6-10B	1SFA611255R3006	
Two position	BC maintained	Short handle	M2SS1-10 ■	1SFA611200R300 [1]	
	BC momentary		M2SS2-10 ■	1SFA611202R300 [1]	
	BC maintained	Long handle	M2SS4-10 ■	1SFA611203R300 [1]	
Two position illuminated	BC maintained	Short handle	M2SS1-11 ■	1SFA611200R310 [1]	
	AC maintained		M2SS2-11 ■	1SFA611201R310 [1]	
	BC momentary	Long handle	M2SS3-11 ■	1SFA611202R310 [1]	
	BC maintained		M2SS4-11 ■	1SFA611203R310 [1]	

**How to order standard operators:**

- Non-illuminated operator + holder + contact block(s)
- Illuminated operator + holder + contact block(s) + lamp block



**Ordering example:**  
 Ex 1: Type CP1-10 ■-10, to order color red replace ■ with R: CP1-10 R-10  
 Ex 2: Order code 1SFA619100R1011, to order color red replace [1] with 1: 1SFA619100R1011

Color codes			Contact blocks including holder with 3 blocks		
Description	Type	Order Code	Description	Type	Order Code
● Red	R	1	1 NO	MCBH-10	1SFA611605R1101
● Green	G	2	1 NC	MCBH-01	1SFA611605R1110
● Yellow	Y	3	2 NC	MCBH-02	1SFA611605R1120
● Blue	L	4	2 NO	MCBH-20	1SFA611605R1102
○ White	W	5	1 NO+1 NC	MCBH-11	1SFA611605R1111
● Black	B	6	1 NO+2 NC	MCBH-12	1SFA611605R1121
● Grey	U	7	<b>Contact blocks</b>		
○ Clear	C	8	1 NO	MCBH-10	1SFA611610R1001
			1 NC	MCBH-01	1SFA611610R1010
<b>Separate holder for 3 blocks</b>					
			Holder	MCBH-00	1SFA611605R1100

Select your colour by replacing [1] with a digit from the chart below

# Pilot devices - modular 22mm

## Emergency, machine stops & mushroom pushbuttons



1

### Emergency stops

Type		Part No	Product Hierarchy 1300001	
			Order Code	Price
30mm Red Non illuminated	Twist release	MPET3-10R	1SFA611520R1001	
	Pull release	MPEP3-10R	1SFA611521R1001	
	Key release	MPEK3-10R	1SFA611522R1101	
40mm Red Non illuminated	Twist release	MPET4-10R	1SFA611523R1001	
	Pull release	MPEP4-10R	1SFA611524R1001	
	Key release	MPEK4-10R	1SFA611525R1101	
40mm Red Illuminated	Twist release	MPMT3-11R	1SFA611510R1101	
	Pull release	MPMP3-11R	1SFA611511R1101	
60mm Red Illuminated	Twist release	MPMT4-11R	1SFA611513R1101	
	Pull release	MPMP4-11R	1SFA611514R1101	

### Machine stops

30mm Black	Twist release	MPET3-10B	1SFA611520R1006	
	Pull release	MPEP3-10B	1SFA611521R1006	
	Key release	MPEK3-10B	1SFA611522R1106	
40mm Black	Twist release	MPET4-10B	1SFA611523R1006	
	Pull release	MPEP4-10B	1SFA611524R1006	
	Key release	MPEK4-10B	1SFA611525R1106	

### Mushroom pushbuttons

40mm Non illuminated momentary	Red	MPM1-10R	1SFA611124R1001	
	Green	MPM1-10G	1SFA611124R1002	
	Yellow	MPM1-10Y	1SFA611124R1003	
	Black	MPM1-10B	1SFA611124R1006	
60mm Non illuminated momentary	Red	MPM2-10R	1SFA611125R1001	
	Yellow	MPM2-10Y	1SFA611125R1003	
	Black	MPM2-10B	1SFA611125R1006	
40mm Illuminated momentary	Red	MPM1-11R	1SFA611124R1001	
	Green	MPM1-11G	1SFA611124R1002	
	Yellow	MPM1-10Y	1SFA611124R1003	
60mm Illuminated momentary	Red	MPM2-11R	1SFA611125R1101	
	Yellow	MPM2-11Y	1SFA611125R1103	



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# Pilot devices - modular 22mm

## Key switches, pilot lights

1



### Key switches BLACK plastic bezel

Type			Part No	Product Hierarchy 1300001	
				Order Code	Price
Two position Key release in BC positions	71/Ronis 455	Maintained BC	M2SSK1-101	1SFA611280R1001	
	72/Ronis 421		M2SSK1-102	1SFA611280R1002	
	73/Ronis 3433-E		M2SSK1-103	1SFA611280R1003	
Two position Key release in B positions	71/Ronis 455		M2SSK2-101	1SFA611281R1001	
	72/Ronis 421		M2SSK2-102	1SFA611281R1002	
	73/Ronis 3433-E		M2SSK2-103	1SFA611281R1003	
Two position	71/Ronis 455	Momentary BC	M2SSK3-101	1SFA611282R1001	
	72/Ronis 421		M2SSK3-102	1SFA611282R1002	
	73/Ronis 3433-E		M2SSK3-103	1SFA611282R1003	
Three position	71/Ronis 455	Maintained ABC	M3SSK1-101	1SFA611283R1001	
	72/Ronis 421		M3SSK1-102	1SFA611283R1002	
	73/Ronis 3433-E		M3SSK1-103	1SFA611283R1003	

### Key switches CHROME metal bezel

Type			Part No	Product Hierarchy 1300001	
				Order Code	Price
Two position Key release in BC positions	71/Ronis 455	Maintained BC	M2SSK1-301	1SFA611280R1001	
	72/Ronis 421		M2SSK1-302	1SFA611280R1002	
	73/Ronis 3433-E		M2SSK1-303	1SFA611280R1003	
Two position Key release in B positions	71/Ronis 455		M2SSK2-301	1SFA611281R1001	
	72/Ronis 421		M2SSK2-302	1SFA611281R1002	
	73/Ronis 3433-E		M2SSK2-303	1SFA611281R1003	
Two position	71/Ronis 455	Momentary BC	M2SSK3-301	1SFA611282R1001	
	72/Ronis 421		M2SSK3-302	1SFA611282R1002	
	73/Ronis 3433-E		M2SSK3-303	1SFA611282R1003	
Three position	71/Ronis 455	Maintained ABC	M3SSK1-301	1SFA611283R1001	
	72/Ronis 421		M3SSK1-302	1SFA611283R1002	
	73/Ronis 3433-E		M3SSK1-303	1SFA611283R1003	



### Pilot lights

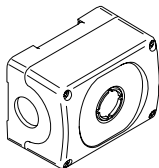
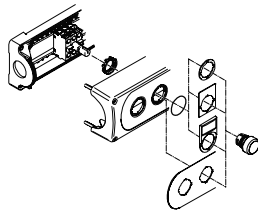
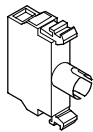
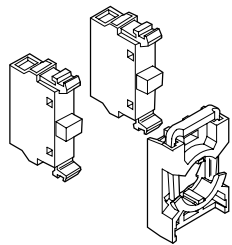
Red	ML-100 R	1SFA611400R1001	
Green	ML-100 G	1SFA611400R1002	
Yellow	ML-100 Y	1SFA611400R1003	
Blue	ML-100 B	1SFA611400R1004	
White	ML-100 W	1SFA611400R1005	
Clear	ML-100 C	1SFA611400R1008	
Light diffusing lens	KA1-8005	1SFA616920R8005	



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# Pilot Devices - modular 22mm

## Contacts, lamp blocks and accessories



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### Contact blocks with 3-holder included

Type	Part No	Product Hierarchy 1300001	
		Order Code	Price
1 NO	MCBH-10	1SFA611605R1101	
1 NC	MCBH-01	1SFA611605R1110	
2 NO	MCBH-20	1SFA611605R1102	
2 NC	MCBH-02	1SFA611605R1120	
1 NO + 1 NC	MCBH-11	1SFA611605R1111	
2 NO + 1 NC	MCBH-21	1SFA611605R1112	

### Separate holder

Holder for 3 blocks	MCBH-00	1SFA611605R1100	
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### Micro switch blocks

1 NO	MCBL-10	1SFA611612R1010	
1 NC	MCBL-01	1SFA611612R1001	

### Contact blocks

1 NO	MCB-10	1SFA611610R1001	
1 NC	MCB-01	1SFA611610R1010	

### Lamp blocks with integrated LED

24V AC/DC	MLBL-01 ■	1SFA611621R101 <span style="border: 1px solid black; padding: 0 2px;">1</span>	
110-130V AC	MLBL-04 ■	1SFA611621R104 <span style="border: 1px solid black; padding: 0 2px;">1</span>	
110-130V DC	MLBL-05 ■	1SFA611621R105 <span style="border: 1px solid black; padding: 0 2px;">1</span>	
220V DC	MLBL-06 ■	1SFA611621R106 <span style="border: 1px solid black; padding: 0 2px;">1</span>	
230V AC	MLBL-07 ■	1SFA611621R107 <span style="border: 1px solid black; padding: 0 2px;">1</span>	

### Legend plate holders

Holder black	KA1-8120	1SFA616920R8120	
Inserts without text	KA1-8121	1SFA616920R8121	
Legend plate holder for plastic enclosures	MA6-1060	1SFA611930R1060	
Inserts without text for plastic enclosures	MA6-1061	1SFA611930R1061	

### General accessories

Shroud	MA1-8053	1SFA611920R8053	
Mounting tool	MA1-8015	1SFA611920R8015	
Membrane of silicone flush button	KA1-8052	1SFA616920R8052	
Membrane of silicone extended button	KA1-8002	1SFA611920R8002	
Locking nut	MA1-8019	1SFA611920R8019	
Light diffusing lens	KA1-8005	1SFA616920R8005	
Adaptors 30mm black plastic	KA1-8029	1SFA616920R8029	
Protective cover	KA1-8010	1SFA616920R8010	
Spacer	-	SK615516-1	
Spacer for emergency stop	KA1-8045	1SFA616920R8045	

### Empty enclosures

Empty Grey Enclosure - 1 Seat		1SFA611811R1000	
Empty Grey Enclosure - 2 Seat		1SFA611812R1000	
Empty Grey Enclosure - 3 Seat		1SFA611813R1000	
Empty Grey Enclosure - 4 Seat		1SFA611814R1000	
Empty Yellow Enclosure - 1 Seat		1SFA611821R1000	



# Pilot Devices - modular 22mm

## Accessories

1



### LEDs

Type	Product Hierarchy 1300001	
	Order Code	Price
White LED 12V	1SFA616921R2015	
Red LED 24V	1SFA616921R2021	
Green LED 24V	1SFA616921R2022	
Yellow LED 24V	1SFA616921R2023	
Blue LED 24V	1SFA616921R2024	
White LED 24V	1SFA616921R2025	
Red LED 110-130V AC	1SFA616921R2131	
Green LED 110-130V AC	1SFA616921R2132	
Yellow LED 110-130V AC	1SFA616921R2133	
KA2-2134 LED 110V AC	1SFA616921R2134	
White LED 110-130V AC	1SFA616921R2135	
KA2-2142 LED 110V AC/DC	1SFA616921R2142	
White LED 110-130V AC/DC	1SFA616921R2145	
Red LED 230V	1SFA616921R2221	
Green LED 230V	1SFA616921R2222	
Yellow LED 230V	1SFA616921R2223	
Blue LED 230V	1SFA616921R2224	
White LED 230V	1SFA616921R2225	

### Filaments

6v Filament Bulb	5911086-11	
12v Filament Bulb	5911086-12	
24v Filament Bulb	5911086-13	
60v Filament Bulb	5911086-14	
130v Filament Bulb	5911086-15	
30v Filament Bulb	5911086-4	
110v Filament Bulb	5911086-7	



Full range of product and technical information place this part number in a search engine and download

1SFC151004C0201

# Electronic products and relays



## Time relays, CT range ..... 1/46

Three ranges of electronic timers provide timing functions for all applications: the CT-D range with a width of just 17.5 mm; the CT-E range, the ideal solution for serial applications; and the CT-S range that has two different types of connection terminals and is ideally suited for universal use. The CT range has a wide variety of timing functions (from ON or OFF delay to star-delta changeover). The time relays are available with output relays, solid-state outputs and precise direct time adjustment.



## Measuring and monitoring, CM range ..... 1/55

State of the Art monitors for single and three-phase systems. Monitoring of: voltage, current, frequency, power factor (motor load), thermistors, temperature, liquid level, insulation resistance, and grid feeding. ABB has one of the world's widest product ranges of measuring and monitoring relays. The CM range is a key product line of the EPR range.



## Power supplies, CP range ..... 1/61

Modern power supply units are a vital component in most areas of energy management and automation technology. As your global partner in this area, ABB pays close attention to corresponding requirements. Innovation is the key to the substantial enlargement of our power supply product range. ABB offers four different product lines for single and three-phase supplies, output voltages 5/12/24, and 48 VDC in plastic and metal enclosure, as well as various accessories.



## Signal converters, CC range and ILPH ..... 1/64

The ABB serial data converters allow communication to be established between units with different communication standards. In order to assure process continuity, existing systems must be updated consistently or connected to new devices. Serial data enables communication to be established if the communication standard of the existing system and the connected device vary. As well as converting signals, analog signal converters and serial data converters can amplify, filter or separate signals.



## Interfaces & optocouplers, CR/R600 ..... 1/76

Interface relays and optocouplers are widely used in various industrial applications. As an interface, they link the controller, e.g. PLC (programmable logic controller), PC or field bus systems to the sensor/ actuator level. Here, they have various functions: switching AC or DC loads with different resistive, inductive and capacitive parts, switching voltages from a few mV up to 250 V, switching currents from a few mA up to 16 A, amplification of weak control signals, electrical isolation of control and load circuits, and signal multiplying.



## Logic relays, CL range ..... 1/89

CL range logic relays are suitable for small and medium-sized control tasks and can substitute logic wiring quickly and easily. Three different ranges are available: stand alone, expandable and the display systems.



Full range of product and technical information place this part number in a search engine and download  
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1

# Timer ranges

1



CT-D

### LEDs for status indication

All actual operational states are displayed by front-face LEDs, thus simplifying commissioning and troubleshooting.

### Direct reading scales

Direct setting of the time delay without any additional calculation allows accurate time delay adjustment.



CT-E

### Connection screws in M3 (pozidrive)

Easy tightening and release of the connection screws using a pozidrive, panhead or crosshead screwdriver.



CT-S

### Double-chamber cage connection terminals

Double-chamber cage connection terminals make it possible to connect wires up to  $2 \times 2.5 \text{ mm}^2$  ( $2 \times 14 \text{ AWG}$ ), rigid or fine-strand, with or without ferrules. Potential distribution does not require additional terminals.

### Time range preselection and fine adjustment

Direct assignment of the preselected time range to the fine adjustment potentiometer scale by multicolor scales.



CT-S

### Easy connect technology

Innovative Push-in connection terminals for tool-free installation. The connection has the same connection direction as the double-chamber cage connection terminals.

The CT range includes 103 electronic timers and switching relays with 16 different functions. The electronic timers are divided into three ranges with their individual benefits. A lot of different connection terminals such as screw, chamber,

double-chamber cage and push-in connection terminals are available. Furthermore, relay outputs and solid-state outputs are also available.

# Timer relays

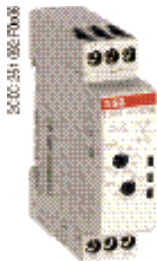
## CT-D



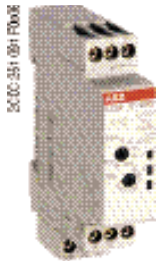
CT-MFD.12



CT-MFD.21



CT-ERD.12



CT-ERD.22



CT-AHD.22



Full range of product and technical information place this part number in a search engine and download  
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Type	Rated control supply voltage	Control input	Order Code	Price
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### Multifunction timers

CT-MFD: 7 functions <sup>1)</sup>, 7 time ranges (0.05 s - 100 h), 1 c/o contact, 2 LEDs

CT-MFD.12	24-48 V DC, 24-240 V AC	•	1SVR500020R0000	
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CT-MFD: 7 functions <sup>1)</sup>, 7 time ranges (0.05 s - 100 h), 2 c/o contacts, 2 LEDs

CT-MFD.21	12-240 V AC/DC	•	1SVR500020R1100	
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### ON-delay timers

CT-ERD: 7 time ranges (0.05 s - 100 h), 1 c/o contact, 2 LEDs

CT-ERD.12	24-48 V DC, 24-240 V AC		1SVR500100R0000	
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CT-ERD: 7 time ranges (0.05 s - 100 h), 2 c/o contacts, 2 LEDs

CT-ERD.22	24-48 V DC, 24-240 V AC		1SVR500100R0100	
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### OFF-delay timers

CT-AHD: 7 time ranges (0.05 s - 100 h), 1 c/o contact, 2 LEDs

CT-AHD.12	24-48 V DC, 24-240 V AC	•	1SVR500110R0000	
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CT-AHD: 7 time ranges (0.05 s - 100 h), 2 c/o contacts, 2 LEDs

CT-AHD.22	24-48 V DC, 24-240 V AC	•	1SVR500110R0100	
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1

# Timer relays

## CT-D

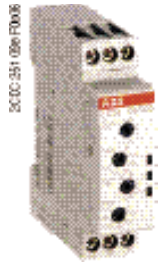
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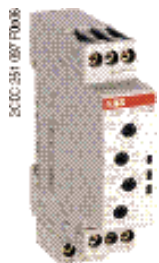
CT-VWD.12



CT-EBD.12



CT-TGD.12



CT-TGD.22

Type	Rated control supply voltage	Control input	Order Code	Price
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### Impulse-ON timers

CT-VWD: 7 time ranges (0.05 s - 100 h), 1 c/o contact, 2 LEDs

CT-VWD.12	24-48 V DC, 24-240 V AC		1SVR500130R0000	
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### Flasher, starting with ON

CT-EBD: 7 time ranges (0.05 s - 100 h), 1 c/o contact, 2 LEDs

CT-EBD.12	24-48 V DC, 24-240 V AC		1SVR500150R0000	
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### Pulse generators

CT-TGD: 2 x 7 time ranges (0.05 s - 100 h)<sup>2)</sup>, 1 c/o contact, 2 LEDs

CT-TGD.12	24-48 V DC, 24-240 V AC	•	1SVR500160R0000	
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CT-TGD: 2 x 7 time ranges (0.05 s - 100 h)<sup>2)</sup>, 2 c/o contacts, 2 LEDs

CT-TGD.22	24-48 V DC, 24-240 V AC	•	1SVR500160R0100	
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### Star-delta timers

CT-SAD: 4 time ranges (0.05 s - 10 min), transition time adjustable, 2 n/o contacts, 3 LEDs

CT-SAD.22	24-48 V DC, 24-240 V AC		1SVR500210R0100	
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# Timer relays

## CT-E



CT-MFE



CT-ERE



CT-AHE



CT-ARE

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
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### Multifunction timer

CT-MFE: 6 functions<sup>1)</sup>, 8 time ranges (0.05 s - 100 h), 1 c/o contact, 2 LEDs

CT-MFE	24-240 V AC/DC	0.05 s - 100 h	•	1SVR550029R8100	
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### ON-delay timers

CT-ERE: 1 c/o contact, 2 LEDs

CT-ERE	24 V AC/DC, 220-240 V AC	0.1-10 s	•	1SVR550107R1100	
		0.3-30 s		1SVR550107R4100	
		3-300 s		1SVR550107R2100	
		0.3-30 min		1SVR550107R5100	
	110-130 V AC	0.1-10 s		1SVR550100R1100	
		0.3-30 s		1SVR550100R4100	
		3-300 s		1SVR550100R2100	
		0.3-30 min		1SVR550100R5100	

### OFF-delay timers

CT-AHE: 1 c/o contact, 2 LEDs

CT-AHE	24 V AC/DC	0.1-10 s	•	1SVR550118R1100	
		0.3-30 s		1SVR550118R4100	
		3-300 s		1SVR550118R2100	
	110-130 V AC	0.1-10 s		1SVR550110R1100	
		0.3-30 s		1SVR550110R4100	
		3-300 s		1SVR550110R2100	
	220-240 V AC	0.1-10 s		1SVR550111R1100	
		0.3-30 s		1SVR550111R4100	
		3-300 s		1SVR550111R2100	

CT-ARE: without auxiliary voltage, 1 c/o contact, 1 LED

CT-ARE	24 V AC/DC, 220-240 V AC	0.1-10 s	1SVR550127R1100	
		0.3-30 s	1SVR550127R4100	



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# Timer relays

## CT-E

1



CT-WVE



CT-AWE



CT-EBE



CT-YDE

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
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### Impulse-ON timers

CT-WVE: 1 c/o contact, 2 LEDs

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
CT-WVE	24 V AC/DC, 220-240 V AC	0.1-10 s		1SVR550137R1100	
		0.3-30 s		1SVR550137R4100	
		3-300 s		1SVR550137R2100	
	110-130 V AC	0.1-10 s		1SVR550130R1100	
		0.3-30 s		1SVR550130R4100	
		3-300 s		1SVR550130R2100	

### Impulse-OFF timers

CT-AWE: without auxiliary voltage, 1 c/o contact, 2 LEDs

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
CT-AWE	24 V AC/DC	0.05-1 s		1SVR550158R3100	
	110-130 V AC			1SVR550150R3100	
	220-240 V AC			1SVR550151R3100	

CT-AWE: with auxiliary voltage, 1 c/o contact, 2 LEDs

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
CT-AWE	24 V AC/DC	0.1-10 s	•	1SVR550148R1100	
		0.3-30 s		1SVR550148R4100	
		3-300 s		1SVR550148R2100	
	110-130 V AC	0.1-10 s		1SVR550140R1100	
		0.3-30 s		1SVR550140R4100	
		3-300 s		1SVR550140R2100	
	220-240 V AC	0.1-10 s		1SVR550141R1100	
		0.3-30 s		1SVR550141R4100	
		3-300 s		1SVR550141R2100	

### Flasher, starting with OFF

CT-EBE: with symmetrical ON & OFF times, 1 c/o contact, 2 LEDs

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
CT-EBE	24 V AC/DC, 220-240 V AC	0.1-10 s		1SVR550167R1100	
	110-130 V AC			1SVR550160R1100	

### Star-delta timers

CT-YDE: ON-delayed, OFF-delayed without auxiliary voltage, 1 c/o contact, 2 LEDs

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
CT-YDE	24 V AC/DC, 220-240 V AC	0.1-10 s		1SVR550207R1100	
		0.3-30 s		1SVR550207R4100	
		3-300 s		1SVR550207R2100	
	110-130 V AC	0.1-10 s		1SVR550200R1100	
		0.3-30 s		1SVR550200R4100	
		3-300 s		1SVR550200R2100	



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# Timer relays

## CT-E



CT-SDE



CT-MKE



CT-EKE



CT-AKE

Type	Rated control supply voltage	Time range	Control input	Order Code	Price
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CT-SDE: ON-delayed with fixed transition time, 1 n/c contact, 1 n/o contact, internally wired, 2 LEDs

CT-SDE	24 V AC/DC, 220-240 V AC	0.3-30 s		1SVR550217R4100	
	110-130 V AC			1SVR550210R4100	
	380-415 V AC			1SVR550212R4100	

Solid-state output / contactless  
Multifunction timer

CT-MKE: 4 functions<sup>1)</sup>, solid-state output, functions and time range selection via external jumpers, 1 LED

CT-MKE	24-240 V AC/DC	0.1-10 s, 3-300 s		1SVR550019R0000	
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ON-delay timers

CT-EKE: solid-state output, 1 LED

CT-EKE	24-240 V AC/DC	0.1-10 s		1SVR550509R1000	
		0.3-30 s		1SVR550509R4000	
		3-300 s		1SVR550509R2000	

OFF-delay timers

CT-AKE: solid-state output, 1 LED

CT-AKE	24-240 V AC	0.1-10 s		1SVR550519R1000	
		0.3-30 s		1SVR550519R4000	
		3-300 s		1SVR550519R2000	

**Notice:**

CT...KE are solid-state timers with thyristor output for 2-wire applications. They are connected directly in series with the control coil of contactors or relays. Voltage should not be applied without a load connected, because there is no current limiting in the unit.



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# The measuring monitoring and timer relays with innovative connection technologies

**New  
S CLASS**



1

## The new housing provides two different connection possibilities: Double-chamber cage connection screw terminals or push-in connection terminals

### General facts

ABB have developed a totally new housing for all time relays and measuring & monitoring relays in S range with innovative connection technologies. In form and design the new housing meets both: ABB's latest design standards and EPR's requirements

for a sophisticated product. All devices are available with either innovative Push-in Terminals or State of the Art Double-Chamber Cage Screw Connection Terminals.

### Easy Connect Technology

Thanks to the innovative new Push-in Terminals, the devices with Easy Connect Technology can be wired much more quickly and easily – without the need of tools. For example, rigid or flexible wires with wire-end ferrules can be connected without the need for a tool. Even flexible wires without ferrules can be directly connected, here the cage must be opened before wire insertion. To release the wires the cages have to be opened with a tool.

The Push-in Terminal is suitable for the following wire sizes: rigid or fine-strand with wire-end ferrule,  $1 \times 0.5 \dots 1.5 \text{ mm}^2$  or  $2 \times 0.5 \dots 1.5 \text{ mm}^2$  /  $1 \times 20 \dots 16 \text{ AWG}$  or  $2 \times 20 \dots 16 \text{ AWG}$ . These Push-in Terminals are completely secure, and are the perfect solution for high vibration environments.

### Double-Chamber Cage Connection Screw Terminals

The screw terminals can be connected with two wires with different wire diameters up to  $2,5 \text{ mm}^2$ . According to IEC/EN 60947-1 two rigid or fine-strand wires with ferrules up to  $2,5 \text{ mm}^2$  (AWG14) can be used.

### Flexibility

Both solutions, Double-Chamber Cage Connection Terminals and Push-in Terminals, have exactly the same design and size. Both versions can thus be interchanged at any time or positioned alongside each other in a switchboard. With this new housing ABB offers the world wide first complete range of industrial products with Push-in Terminals.

### Other Features

Snap on housing - Tool-less mounting and removal on / off the DIN rail. Housing meets UL94 VO classifications. Abrasion resistant terminal and front face marking.

Available now in Timer range. Coming soon in Measuring and Monitoring product range.

# Timer relays

## CT-S



CT-MVS.21



CT-MXS.22



CT-MFS.21



CT-MBS.22



CT-WBS.22



Full range of product and technical information place this part number in a search engine and download  
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Type	Rated control supply voltage	Control input	Remote potentiometer connection	2nd c/o cont. selectable as inst. contact	Order Code	Price
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### Multifunction timers

CT-MVS: 11 functions <sup>1)</sup>, 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 3 LEDs – 40 °C

CT-MVS.21S	24-240 V AC/DC	■	1x	○	1SVR730020R0200	
CT-MVS.21P					1SVR740020R0200	

CT-MVS: 11 functions <sup>1)</sup>, 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 2 LEDs

CT-MVS.22S	24-48 V DC	■			1SVR730020R3300	
CT-MVS.22P	24-240 V AC				1SVR740020R3300	
CT-MVS.23S	380-440 V AC				1SVR730021R2300	
CT-MVS.23P					1SVR740021R2300	

CT-MVS: 10 functions <sup>2)</sup>, 10 time ranges (0.05 s- 300 h), 1 c/o contact, 2 LEDs

CT-MVS.12S	24-48 V DC	■			1SVR730020R3100	
CT-MVS.12P	24-240 V AC				1SVR740020R3100	

CT-MXS: 5 functions <sup>3)</sup>, 2 x 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 2 LEDs

CT-MXS.22S	24-48 V DC	■	2x		1SVR730030R3300	
CT-MXS.22P	24-240 V AC				1SVR740030R3300	

CT-MFS: 10 functions <sup>4)</sup>, 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 3 LEDs – 40 °C

CT-MFS.21S	24-48 V DC	□□	1x	•	1SVR730010R0200	
CT-MFS.21P	24-240 V AC				1SVR740010R0200	

CT-MBS: 10 functions <sup>4)</sup>, 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 3 LEDs

CT-MBS.22S	24-48 V DC	□	1x	•	1SVR730010R3200	
CT-MBS.22P	24-240 V AC				1SVR740010R3200	

### Impulse and flasher timer

CT-WBS: 7 functions <sup>5)</sup>, 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 2 LEDs

CT-WBS.22S	24-48 V DC				1SVR730040R3300	
CT-WBS.22P	24-240 V AC				1SVR740040R3300	

■ Control input with voltage-related triggering

□ Control input with volt-free triggering

<sup>1)</sup> Functions: ON-delay, OFF-delay with auxiliary voltage, Impulse-ON, Impulse-OFF with auxiliary voltage, Symmetrical ON- and OFF-delay, Flasher starting with ON or OFF, Star-delta change-over with impulse, Pulse former, Accumulative ON-delay, ON/OFF-function

<sup>2)</sup> Functions: ON-delay, OFF-delay with auxiliary voltage, Impulse-ON, Impulse-OFF with auxiliary voltage, Symmetrical ON- and OFF-delay, Flasher starting with ON or OFF, Pulse former, Accumulative ON-delay, ON/OFF-function

<sup>3)</sup> Functions: Select function via DIP switches behind the marker label on the front of the unit, asymmetrical ON- and OFF-delay, Impulse-ON/OFF, Pulse generator starting with ON or OFF, Single pulse generator, ON/OFF-function

<sup>4)</sup> Functions: ON-delay, OFF-delay with auxiliary voltage, Impulse-ON, Impulse-OFF with auxiliary voltage, Symmetrical ON- and OFF-delay, Flasher starting with ON, Flasher starting with OFF, Star-delta change-over with impulse, Pulse former, ON/OFF-function

<sup>5)</sup> Functions: Flasher starting with ON, Flasher starting with OFF, Impulse-ON, ON-delay, fixed impulse with adjustable time delay, Adjustable impulse with fixed time delay, ON/OFF-function

S - Screw connection

P - Easy connect - Push in connection

# Timer relays

## CT-S

1



CT-ERS.21



CT-ERS.12



CT-AHS.22



CT-SDS.23

Type	Rated control supply voltage	Control input	Remote potentiometer connection	2nd c/o cont. selectable as inst. contact	Order Code	Price
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### ON-delay timers

CT-ERS: 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 2 LEDs -40 °C

CT-ERS.21S	24-240 V AC/DC				1SVR730100R0300	
CT-ERS.21P					1SVR740100R0300	
CT-ERS.22S	24-48 V DC				1SVR730100R3300	
CT-ERS.22P	24-240 V AC				1SVR740100R3300	

CT-ERS: 10 time ranges (0.05 s- 300 h), 1 c/o contact, 2 LEDs

CT-ERS.12S	24-48 V DC				1SVR730100R3100	
CT-ERS.12P	24-240 V AC				1SVR740100R3100	

### OFF-delay timers

CT-APS: 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 2 LEDs -40 °C

CT-APS.21S	24-240 V AC/DC	■			1SVR730180R0300	
CT-APS.21P					1SVR740180R0300	
CT-APS.22S	24-48 V DC	■			1SVR730180R3300	
CT-APS.22P	24-240 V AC				1SVR740180R3300	

CT-APS: 10 time ranges (0.05 s- 300 h), 1 c/o contact, 2 LEDs

CT-APS.12S	24-48 V DC	■			1SVR730180R3100	
CT-APS.12P	24-240 V AC				1SVR740180R3100	

CT-AHS: 10 time ranges (0.05 s- 300 h), 2 c/o contacts, 2 LEDs

CT-AHS.22S	24-48 V DC	□			1SVR730110R3300	
CT-AHS.22P	24-240 V AC				1SVR740110R3300	

CT-ARS: without auxiliary voltage, 7 time ranges (0.05 s- 10 min), 1 c/o contact, 1 LED

CT-ARS.11S	24-240 V AC/DC				1SVR730120R3300	
CT-ARS.11P					1SVR740120R3300	

### Star-delta timers

CT-SDS: 7 time ranges (0.05 s- 10 min), 50 ms transition time, 2 n/o contacts, 3 LEDs

CT-SDS.22S	24-48 V DC				1SVR730210R3300	
CT-SDS.22P	24-240 V AC				1SVR740210R3300	
CT-SDS.23S	380-440 V AC				1SVR730211R2300	
CT-SDS.23P					1SVR740211R2300	

■ Control input with voltage-related triggering

□ Control input with volt-free triggering

S - Screw connection

P - Easy connect - Push in connection



Full range of product and technical information place this part number in a search engine and download

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# Measuring & monitoring relays

## Insulation & motor load monitors



CM-IWS

Type	Order Code	Price
CM-IWS.2	1SVR630670R0200	134.57
CM-IWS.1	1SVR630660R0100	192.10
CM-IWN.1	1SVR650660R0200	417.86
CM-IVN	1SVR650669R9400	241.34



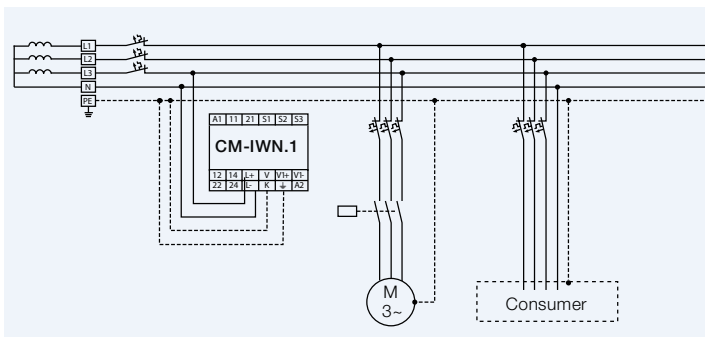
CM-LWN

Type	Order Code	Price
CM-LWN	1SVR450335R0000	150.11
CM-LWN	1SVR450330R0000	130.38
CM-LWN	1SVR450331R0000	POA
CM-LWN	1SVR450332R0000	130.38
CM-LWN	1SVR450334R0000	POA
CM-LWN	1SVR450335R0100	159.13
CM-LWN	1SVR450330R0100	POA
CM-LWN	1SVR450331R0100	139.40
CM-LWN	1SVR450332R0100	139.40
CM-LWN	1SVR450334R0100	POA

Rated control supply voltage $U_c$	
24 - 240 VAC/DC	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Measuring voltages	
250 V AC (L-PE)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
400 V AC (L-PE)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
690 V AC	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
300 V DC (L-PE)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
600 V DC (L-PE)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1000 V DC	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Measuring range	
1 - 100 k $\Omega$	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2 - 200 k $\Omega$	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Output contacts	
1 c/o	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
1 x 2 c/o or 2 x 1 c/o	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Working principle	
open circuit principle	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
open or closed principle adjustable	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Test	
Front face button or control input	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Reset	
Front face button or control input	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Fault storage / latching configurable	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Non voltage storage configurable	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Interrupted wire detection	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Threshold values configurable	1 1 2
Coupling unit	Yes CM-IWN.1

Rated control supply voltage $U_c$	
24-240 V AC/DC	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Voltage range (Phase to phase)	
110- 500 V	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Current range	
0.5 - 5 A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2 - 20 A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Frequency range	
50/60 Hz	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
DC or 15 - 400 Hz	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Suitable for monitoring	
Single-phase mains	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Three-phase mains	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Monitoring function	
Motor load // cos Phi	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Timing functions	
Start up delay (on delay)	adj ; adj ; adj ; adj ; adj ; adj ; adj ; adj ; adj ; adj
Response delay	adj ; adj ; adj ; adj ; adj ; adj ; adj ; adj ; adj ; adj
Output contacts	
2 x 1 c/o	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

### Insulation monitors for unearthed supply systems (IT-Systems)





# Measuring & monitoring relays

## Liquid level monitoring



CM-ENE MIN

Type	Order Code	Price
CM-ENE MIN	1SVR550855R9500	44.70
CM-ENE MIN	1SVR550850R9500	44.70
CM-ENE MIN	1SVR550851R9500	44.70
CM-ENE MAX	1SVR550855R9400	POA
CM-ENE MAX	1SVR550855R9400	POA
CM-ENE MAX	1SVR550851R9400	44.94
CM-ENS	1SVR430851R9100	59.40
CM-ENS	1SVR430851R0100	59.40
CM-ENS	1SVR430851R1100	59.40
CM-ENS	1SVR430851R2100	65.87
CM-ENS UP/DOWN	1SVR430851R9200	64.71
CM-ENS UP/DOWN	1SVR430851R0200	64.71
CM-ENS UP/DOWN	1SVR430851R1200	64.71
CM-ENN	1SVR450055R0000	112.32
CM-ENN	1SVR450059R0000	91.85
CM-ENN	1SVR450050R0000	88.05
CM-ENN	1SVR450051R0000	91.85
CM-ENN	1SVR450052R0000	99.24
CM-ENN UP/DOWN	1SVR450059R0100	POA
CM-ENN UP/DOWN	1SVR450050R0100	119.75
CM-ENN UP/DOWN	1SVR450051R0100	125.36
CM-ENN UP/DOWN	1SVR450052R0100	126.30

### Rated control supply voltage U<sub>s</sub>

24 - 240 V AC/DC																				
24 V AC	■																			
110 - 130 V AC		■																		
220 - 240 V AC			■																	
380 - 415 V AC				■																

### Sensor circuits

No of electrodes (including ground reference)		2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	5	5
---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

### Response sensitivity

0 - 100 kOhm	■	■	■	■	■														
5 - 100 kOhm							adj	adj	adj	adj	adj	adj					adj	adj	adj
250 Ohm - 5 kOhm													adj	adj	adj	adj	adj		
2,5 - 50 kOhm													adj	adj	adj	adj	adj		
25 - 500 kOhm													adj	adj	adj	adj	adj		

### Monitoring function

Dry-running protection	■	■	■																
Overflow protection				■	■	■													
Liquide level control							■	■	■	■	■	■	■	■	■	■	■	■	■

### Operating principle

Open circuit principle	■	■	■				■	■	■	■			■	■	■	■			
Closed circuit principle				■	■	■													
Open or closed circuit principle										sel	sel	sel					sel	sel	sel

### Output contacts

n/o	1	1	1	1	1	1													
n/c																	2	2	2
c/o							1	1	1	1	1	1	1	1	1	1	1	1	1

### Accessories – electrodes

Type	Description	Order Code	Price
CM-KH-3	Compact support for 3 bar electrodes	1SVR450056R6000	
CM-AH-3	Distance plate for 3 bar electrodes	1SVR450056R7000	
CM-GM-1	Counter nut for 1" thread	1SVR450056R8000	

### Screw-in bar electrodes / Suspension electrode

Type	Description	Order Code	Price
CM-SE-300	300 mm	1SVR450056R0000	
CM-SE-600	600 mm	1SVR450056R0100	
CM-SE-1000	1000 mm	1SVR450056R0200	

# Measuring & monitoring

## Accessories

1



CM-CT

### Plug-in current transformers CM-CT

- Without primary conductor though with foot angle, insulating protective cap and bar fastening screws
- Primary / rated current from 50 A to 600 A
- Secondary current of 1 A or 5 A
- Class 1

#### Secondary current 1 A

Type	Rated primary current	Burden class	Order Code	Price
CM-CT 50/1	50 A	1 VA/1	1SVR450116R1000	
CM-CT 75/1	75 A	1.5 VA/1	1SVR450116R1100	
CM-CT 100/1	100 A	2.5 VA/1	1SVR450116R1200	
CM-CT 150/1	150 A		1SVR450116R1300	
CM-CT 200/1	200 A		1SVR450116R1400	
CM-CT 300/1	300 A	5 VA/1	1SVR450117R1100	
CM-CT 400/1	400 A		1SVR450117R1200	
CM-CT 500/1	500 A		1SVR450117R1300	
CM-CT 600/1	600 A		1SVR450117R1400	

#### Sealable transparent cover

Type	For type	Width mm	Order Code	Price
COV.01	CM-S	22.5	1SVR430005R0100	



Full range of product and technical information place this part number in a search engine and download

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# Primary switch mode power supplies

## CP-D and CP-E



CP-D 12/0.83,  
CP-D 24/0.42



CP-D 24/2.1  
CP-D 24/1.3



CP-E 5/3.0



CP-E 24/5.0



CP-RUD



Full range of product and technical information place this part number in a search engine and download  
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### CP-D range

Type	Input voltage range	Rated output voltage / current	Order Code	Price
CP-D 12/0.83	90-264 V AC/ 120-370 V DC	12 V DC /0.83 A	1SVR427041R1000	
CP-D 12/2.1	90-264 V AC/ 120-370 V DC	12 V DC /2.1 A	1SVR427043R1200	

CP-D 24/0.42	90-264 V AC/ 120-370 V DC	24 V DC /0.42 A	1SVR427041R0000	
CP-D 24/1.3	90-264 V AC/ 120-370 V DC	24 V DC /1.3 A	1SVR427043R0100	
CP-D 24/2.5	90-264 V AC/ 120-370 V DC	24 V DC /2.5 A	1SVR427044R0200	
CP-D 24/4.2	90-264 V AC/ 120-370 V DC	24 V DC /4.2 A	1SVR427045R0400	

### CP-E range

Type	Input voltage range	Rated output voltage / current	Order Code	Price
CP-E 5/3.0	90-265 V AC/ 120-370 V DC	5 V DC /3 A	1SVR427033R3000	

CP-E 12/2.5	85-264 V AC/ 90-375 V DC	12 V DC /2.5 A	1SVR427032R1000	
CP-E 12/10.0	90-132 V AC, 186-264 V AC/ 210-370 V DC	12 V DC /10 A	1SVR427035R1000	

CP-E 24/0.75	90-265 V AC/ 120-370 V DC	24 V DC /0.75 A	1SVR427030R0000	
CP-E 24/1.25	85-264 V AC/ 90-375 V DC	24 V DC /1.25 A	1SVR427031R0000	
CP-E 24/2.5	85-264 V AC/ 90-375 V DC	24 V DC /2.5 A	1SVR427032R0000	
CP-E 24/5.0	90-132 V AC, 186-264 V AC/ 210-370 V DC	24 V DC /5 A	1SVR427034R0000	
CP-E 24/10.0	93-132 V AC, 186-264 V AC/ 210-370 V DC	24 V DC /10 A	1SVR427035R0000	
CP-E 24/20.0	90-264 V AC/ 120-370 V DC	24 V DC /20 A	1SVR427036R0000	

CP-E 48/0.62	85-264 V AC/ 90-375 V DC	48 V DC / 0.625 A	1SVR427030R2000	
CP-E 48/1.25	85-264 V AC/ 90-375 V DC	48 V DC /1.25 A	1SVR427031R2000	
CP-E 48/5.0	93-132 V AC, 186-264 V AC/ 210-370 V DC	48 V DC /5 A	1SVR427034R2000	
CP-E 48/10.0	90-264 V AC/ 120-370 V DC	48 V DC /10 A	1SVR427035R2000	

### Redundancy units

for decoupling of two CP-E power supply units

Type	Suitable for decoupling of CP-E power supply units	Order Code	Price
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CP-RUD: 2 inputs each up to 2.5 A and 1 output up to 5 A

CP-RUD	< 35 V and < 5 A	1SVR423418R9000	
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CP-A RU: 2 inputs each up to 20 A and 1 output up to 40 A

CP-A RU	< 40 V and > 5 A	1SVR427071R0000	
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# Primary switch mode power supplies

## CP-T, CP-S and CP-C

1



CP-T 24/5.0



CP-T 24/10.0  
CP-T 48/5.0



CP-A RU



CP-S 24/5.0



CP-C 24/10.0



CP-A CM



Full range of product and technical information place this part number in a search engine and download  
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### CP-T range

Type	Three Phase Input voltage range	Rated output voltage / current	Order Code	Price
CP-T 24/5.0	340-575 V AC/ 480-820 V DC	24 V DC /5 A	1SVR427054R0000	
CP-T 24/10.0	340-575 V AC/ 480-820 V DC	24 V DC /10 A	1SVR427055R0000	
CP-T 24/20.0	340-575 V AC/ 480-820 V DC	24 V DC /20 A	1SVR427056R0000	
CP-T 24/40.0	340-575 V AC/ 480-820 V DC	24 V DC /40 A	1SVR427057R0000	
CP-T 48/5.0	340-575 V AC/480-820 V DC	48 V DC /5 A	1SVR427054R2000	
CP-T 48/10.0	340-575 V AC/ 480-820 V DC	48 V DC /10 A	1SVR427055R2000	
CP-T 48/20.0	340-575 V AC/ 480-820 V DC	48 V DC /20 A	1SVR427056R2000	

Type	Input voltage range	Rated output voltage / current	Order Code	
<b>CP-S range</b>				
CP-S 24/5.0	85-264 V AC/ 110-350 V DC	24 V DC /5 A	1SVR427014R0000	
CP-S 24/10.0	85-132 V AC, 184-264 V AC/ 220-350 V DC	24 V DC /10 A	1SVR427015R0100	
CP-S 24/20.0	85-132 V AC, 184-264 V AC/ 220-350 V DC	24 V DC / 20 A	1SVR427016R0100	

### CP-C range

CP-C 24/5.0	85-264 V AC/ 110-350 V DC	24 V DC /5 A	1SVR427024R0000	
CP-C 24/10.0	85-264 V AC/ 110-350 V DC	24 V DC /10 A	1SVR427025R0000	
CP-C 24/20.0	85-264 V AC/ 110-350 V DC	24 V DC / 20 A	1SVR427026R0000	

### Accessories

Type	Description	Order Code	
<b>Accessories for CP-C range</b>			
CP-C MM	Messaging module	1SVR427081R0000	
CP-A CM	Control module	1SVR427075R0000	

### Redundancy unit

Type	Suitable for decoupling CP-T, CP-S, CP-E, CP-C	Order Code	
CP-A-RU	2 inputs each up to 20 A and 1 output up to 40 A	1SVR427071R0000	

# Ultra capacitor based buffer modules

## CP-B

1

Product selection table

		CP-B 24/3.0	CP-B 24/10.0	CP-B 24/20.0	CP-B EXT.2
Order Code		1SVR427060R0300	1SVR427060R1000	1SVR427060R2000	1SVR427065R0000
Price					
Rated input voltage		24 V DC	24 V DC	24 V DC	–
Rated current		3 A DC	10 A DC	20 A DC	–
Energy storage (min.)		1.000 Ws	10.000 Ws	8.000 Ws	2.000 Ws
Typical charging time at load current	100 %	65 s	120 s	68 s	
	0 %	56 s	82 s	62 s	
Typical buffer time <sup>1)</sup> at load current	100 %	14 s	40 s	15 s	
	50 %	28 s	80 s	30 s	
	25 %	74 s	140 s	60 s	
	10 %	148 s	380 s	150 s	

### Dimensions

Width	60.00 mm	127.00 mm	84.00 mm	60.00 mm
Height	92.50 mm	163.00 mm	192.00 mm	92.50 mm
Depth	116.00 mm	150.00 mm	198.00 mm	116.00 mm



CP-B 24/3.0



CP-B 24/10.0

$${}^1) \text{ buffering time} = \frac{\text{energy storage} \times 0.9}{\text{current} \times \text{output voltage}}$$

Type	Rated input voltage	Rated current	Order Code	Price
<b>CP-B range</b>				
CP-B 24/3.0	24 V DC	3 A DC	1SVR427060R0300	
CP-B 24/10.0	24 V DC	10 A DC	1SVR427060R1000	
CP-B 24/20.0	24 V DC	20 A DC	1SVR427060R2000	
CP-B EXT.2	–	–	1SVR427060R2000	



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# Analog standard signal converters

## Application, approvals & marks

1

### Applications for analog signal processing and correct solution using CC-E and CC-U converters

Nearly every process includes a control system that receives data by means of analog signals and then evaluates the data and sets the respective parameters correspondingly.

When transmitting analog signals numerous problems may arise which can disturb or even block an ideal behavior of the process.

Below we have listed some processing problems together with the respective solutions to solve these problems:

#### Signal conversion

Sometimes the available signals cannot be processed by the controller or the actuator. In this case, signal converters are required to convert the input signal (or different input signals) to the desired output signal.

#### Signal amplification

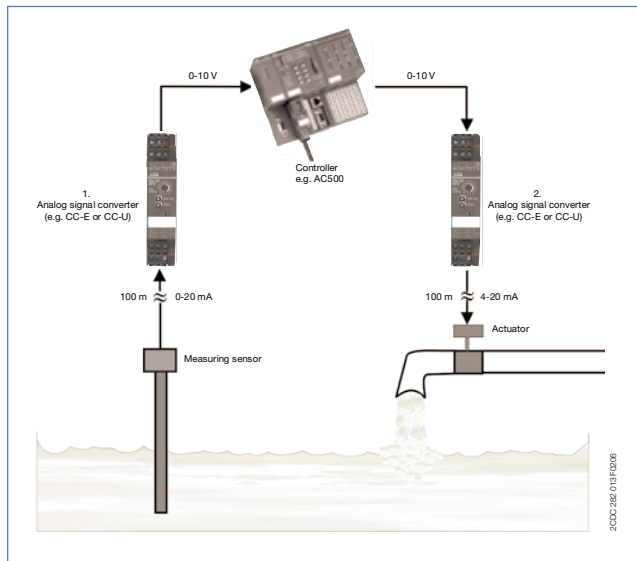
If long lines or high burdens have to be operated, it may be necessary to amplify the signal. CC analog signal converters require only low input power and provide high output power.

Thus, there are no restrictions for the converter's position on the line, i.e. it can be used

- for signal refreshing ① at the end of the line (low input power)
- or for signal amplification ② at the beginning of the line (high output power).

#### Signal filtering

Particularly on long lines or in rough industrial environments the signals are exposed to high electromagnetic interferences. The frequency of the coupled interference signals may be in the range of the common mains frequency (50 Hz) or even much higher (in case of frequency converters). According to the specific requirements, analog signal converters are available which provide reliable suppression of those interferences by means of an input low-pass filter.



#### Signal separation

##### Protection against overvoltage

The increased use of micro-electronics make controls much more sensitive against overvoltages, resulting from lightning discharges or switching processes. Suppression diodes are incorporated in the input of the CC analog signal converters which enable the converters to arrest overvoltages with low energy level (resulting from switching processes) by themselves. The products furthermore provide electrical isolation between input, output and supply circuit for protection of the controller connected to the output.

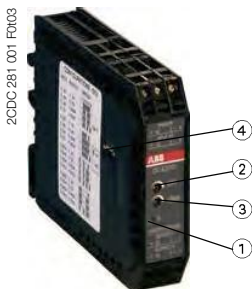
##### Protection against ground loops

If components are used which refer to ground, the measuring signals can be falsified by a so-called ground loop. In this case, certain parts of the signal are transmitted via earth and not via the analog transmission line, thus causing incorrect evaluation of the signal. The electrical isolation between the input and the output disconnects these ground loops and thus enables correct signal transmission.

Approvals		CC-E/STD	CC-E/I	CC-U/STD	CC-U/STDR	CC-E/RTD	CC-U/RTD	CC-U/RTDR	CC-E/TC	CC-U/TC	CC-U/TCR	CC-E/I	CC-E <sub>AC</sub> /ILPO	CC-U/I	CC-U/V	■ existing ▲ existing for some devices □ pending
	UL 508, CAN/CSA C22.2 No.14	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	UL 1604 (Class I, Div 2, hazardous locations), CAN/CSA C22.2 No.213	▲		■		▲	■		▲	■		▲		■	■	
	CB scheme				■			■			■					
	CCC				■			■			■					
Marks																
	CE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	C-Tick	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

# Analog standard signal converters

## CC-E/STD, CC-E x/x



**CC-E/STD**



**CC-E V/V**

- ① U: green LED - supply voltage
- ② Gain adjustment
- ③ Offset adjustment
- ④ DIP switch for input and output configuration (only available on universal devices)

<sup>1)</sup> 1604 Class I, Div.2 (universal device)

### CC-E/STD analog signal converter with 3-way electrical isolation

- 2 universally configurable devices (type CC-E/STD)
- 2x10 single-function devices "Plug and Work", no adjustment of single-function devices required

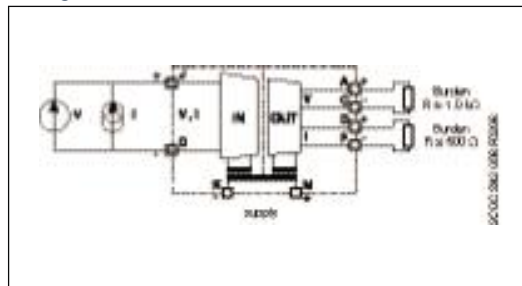
Type	Input signal	Output signal	Order Code	Price
<b>Supply voltage: 24 V DC universal</b>				
CC-E/STD	0-5 V, 0-10 V 0-20 mA, 4-20 mA	0-5 V, 0-10 V 0-20 mA, 4-20 mA	1SVR011700R0000 <sup>1)</sup>	

single-function				
CC-E V/V	0-10 V	0-10 V	1SVR011710R2100	
CC-E V/I		0-20 mA	1SVR011711R1600	
		4-20 mA	1SVR011712R1700	
CC-E V/V	0-20 mA	0-10 V	1SVR011713R1000	
CC-E V/I		0-20 mA	1SVR011714R1100	
		4-20 mA	1SVR011715R1200	
CC-E V/V	4-20 mA	0-10 V	1SVR011719R2600	
CC-E V/I		0-20 mA	1SVR011719R2600	
		4-20 mA	1SVR011719R2600	
CC-E V/V	-10... +10 V	-10... +10 V	1SVR011719R2600	

<b>Supply voltage: 110-240 V AC universal</b>				
CC-E/STD	0-5 V, 0-10 V 0-20 mA, 4-20 mA	0-5 V, 0-10 V 0-20 mA, 4-20 mA	1SVR011705R2100	

single-function				
CC-E V/V	0-10 V	0-10 V	1SVR011720R2300	
CC-E V/I		0-20 mA	1SVR011721R1000	
		4-20 mA	1SVR011722R1100	
CC-E V/V	0-20 mA	0-10 V	1SVR011723R1200	
CC-E V/I		0-20 mA	1SVR011724R1300	
		4-20 mA	1SVR011725R1400	
CC-E V/V	4-20 mA	0-10 V	1SVR011726R1500	
CC-E V/I		0-20 mA	1SVR011727R1600	
		4-20 mA	1SVR011728R2700	
CC-E V/V	-10... +10 V	-10... +10 V	1SVR011729R2000	

### Wiring instruction



### DIP switch settings (universal devices)

Input	Output	Supply	1	2	3	4	5	6	7	8	9	10
0...5 V	0...10 V	0...10 V										
	0...20 mA	0...20 mA										
	4...20 mA	4...20 mA										
0...10 V	0...10 V	0...10 V										
	0...20 mA	0...20 mA										
	4...20 mA	4...20 mA										
0...20 mA	0...10 V	0...10 V										
	0...20 mA	0...20 mA										
	4...20 mA	4...20 mA										
4...20 mA	0...5 V	0...5 V										
	0...10 V	0...10 V										
	0...20 mA	0...20 mA										

Legend: ON (black square), OFF (white square)



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# Current/current isolator

## CC-E I/I-1 and CC-E I/I-2

1



CC-E I/I-1



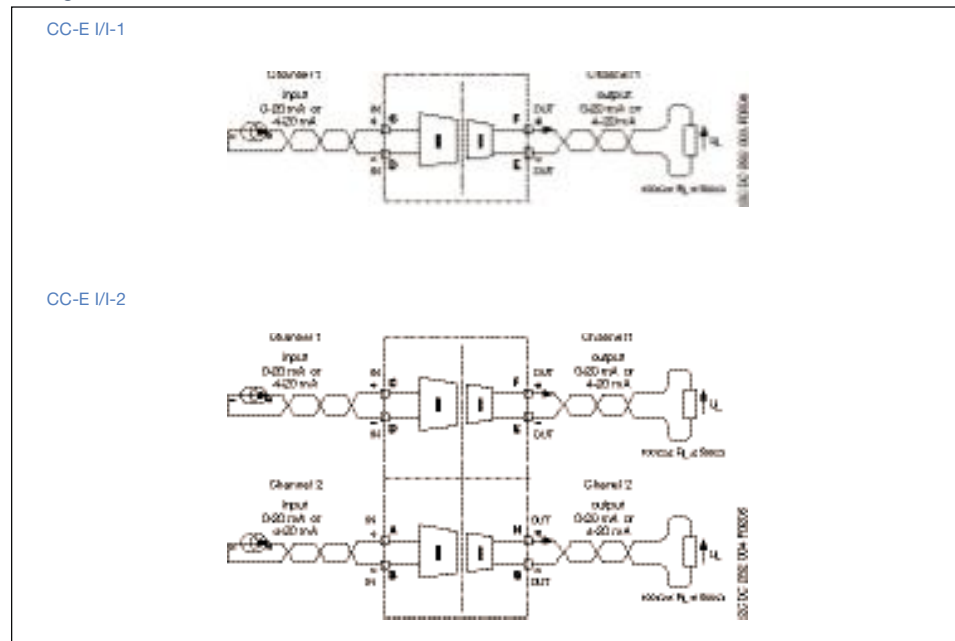
CC-E I/I-2

Loop-powered current/current isolator without external power supply for analog current signals of 0-20 mA and 4-20 mA

- Electrical isolation between input and output
- Very low internal voltage drop m 2.5 V
- Available with one or two independent channels
- Width only 18 mm (1 and 2 channels)

Type	Input signal	Output signal	Order Code	Price
<b>1 channel</b>				
CC-E I/I-1	0-20 mA, 4-20 mA	0-20 mA, 4-20 mA	1SVR010200R1600	
<b>2 channel</b>				
CC-E I/I-2	0-20 mA, 4-20 mA	0-20 mA, 4-20 mA	1SVR010200R0300	

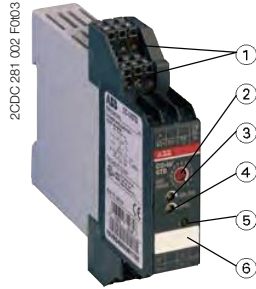
### Wiring instructions



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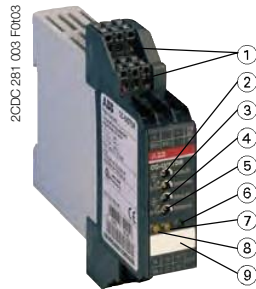
# Analog standard signal converter

## CC-U/STD & CC-U/STDR



**CC-U/STD**

- ① Plug-in terminals
- ② Gain: Coarse adjustment
- ③ Gain: Fine adjustment
- ④ Offset adjustment
- ⑤ U: green LED - supply voltage
- ⑥ Marker label



**CC-U/STDR**

- ① Plug-in connecting terminals
- ② Threshold value for R1
- ③ Hysteresis for R1
- ④ Threshold value for R2
- ⑤ Hysteresis for R2
- ⑥ U: green LED - supply voltage
- ⑦ R2: yellow LED - Relay 2 energized
- ⑧ R1: yellow LED - Relay 1 energized
- ⑨ Marker label



Full range of product and technical information place this part number in a search engine and download  
**2CDC110004C0206**

### CC-U/STD universal signal converter with 3-way electrical isolation

- More than 120 configurations possible
- Configurable output signal response on input voltage signal interruption (low fail safe / high fail safe)
- Adjustment and operating elements on the front
- Short-circuit proof signal outputs
- Plug-in connecting terminals for inputs, outputs and supply
- Very fast signal transmission enables use in control systems

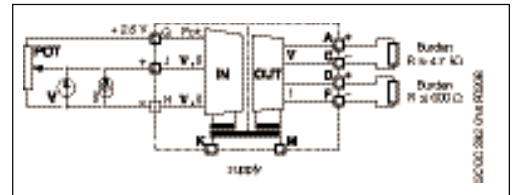
Type	Rated supply voltage	Order Code	Price
CC-U/STD	24-48 V DC	1SVR04000R1700	
	110-240 V AC	1SVR040001R0400	

### DIP switch settings

Input	Switch						Gain	Coarse Type
	1	2	3	4	5	6		
Potentiometer							0	0
0...50 mV							4...5	5
0...500 mV							0...1	1
0...5000 mV							7...9	9
0...1 V							3...4	3
0...2.5 V							0	0
0...5 V							5...7	6
0...10 V							2	2
1...5 V							7...9	8
2...10 V							2...4	3
-10...+10 V							0	0
0...120 mV							3...4	3
0...5 V							3...4	3
22.5...+22.5 mV							B...F	D
-11...+11 V							0	0
2...2.5 V							5...7	6
3.33...9.99 V							3...4	4
10...20 V							2	2
100...0 mV							4...5	5
0...1 mA							A...B	B
0...20 mA							2...4	3
4...20 mA							4...5	4
10...50 mA							0...1	1
20...4 mA							4...5	4
20...0 mA							4...2	3
0.45...+0.45 mA							B...F	D
25...25 mA							4...5	5
High fail safe 1							4...5	5
Low fail safe 1							-	-
No fail safe 1							-	-

\*) Detection of input voltage signal interruptions:  
 If the input signal circuit is interrupted, the output signal changes to the adjusted minimum value (low fail safe) or maximum value (high fail safe).  
 If "No fail safe" is configured, input signal interruptions are not detected.

### Wiring instruction

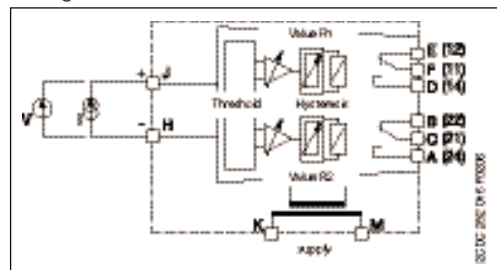


### CC-U/STDR universal signal converter for standard signals, with 2 threshold relay outputs and with 3-way electrical isolation

- Standard signal converter with 7 setting ranges
- 2 threshold relay outputs with one c/o contact each (threshold and respective hysteresis can be adjusted independently from each other)
- Open-circuit or closed-circuit principle configurable by means of a DIP switch
- 2 yellow LEDs for clear status indication of the output relays
- Plug-in connecting terminals for inputs, outputs and supply

Type	Rated supply voltage	Order Code	Price
CC-U/STDR	24-48 V DC	1SVR040010R0000	
	110-240 V AC	1SVR040011R2500	

### Wiring instruction



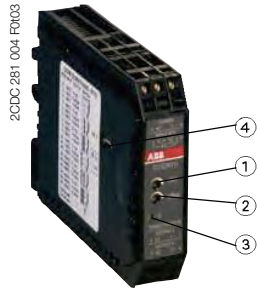
### DIP switch settings

Input	Switch					
	1	2	3	4	5	6
0...0 V						
0...5 V						
0...1 V						
-10...+10 V						
1...5 V						
0...20 mA						
4...20 mA						
Output						
Closed-circuit principle						
Open-circuit principle						

# Temperature signal converter for RTD sensors

## CC-E/RTD

1



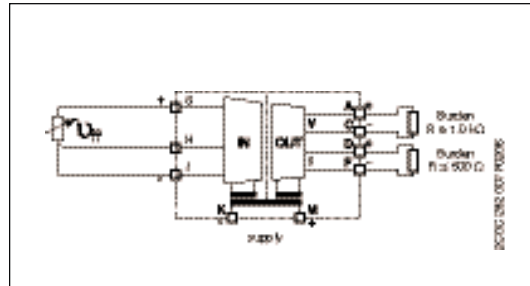
### CC-E/RTD

- ① Gain adjustment
- ② Offset adjustment
- ③ U: green LED - supply voltage
- ④ DIP switch for input and output configuration (only available on universal devices)

CC-E/RTD temperature signal converter for RTD sensors, linearized with 3-way electrical isolation

- 2 universally configurable devices (type CC-E/RTD)
- 2x12 single-function devices
- "Plug and Work", no adjustment of single-function devices required
- Temperature signal converter for PT100 sensors
- 2- or 3-wire connection

### Wiring instruction



### DIP switch settings (universal devices)

Input	Output	1	2	3	4	5	6
0...100 °C	0-10 V						
0...100 °C	0-20 mA						
0...100 °C	4-20 mA						
0...100 °C	0-10 V						
0...100 °C	0-20 mA						
0...100 °C	4-20 mA						
0...100 °C	0-10 V						
0...100 °C	0-20 mA						
0...100 °C	4-20 mA						
0...100 °C	0-10 V						
0...100 °C	0-20 mA						
0...100 °C	4-20 mA						
0...100 °C	0-10 V						
0...100 °C	0-20 mA						
0...100 °C	4-20 mA						

Type	Input signal	Output signal	Order Code	Price
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#### Supply voltage: 24 V DC universal

Type	Input signal	Output signal	Order Code	Price
CC-E/RTD	refer to table	0-10 V, 0-20 mA, 4-20 mA	1SVR011701R2500 <sup>1)</sup>	
<b>single-function</b>				
CC-E RTD/V	PT100 0...100 °C	0-10 V	1SVR011730R2500	
CC-E RTD/I		0-20 mA	1SVR011731R1200	
CC-E RTD/I		4-20 mA	1SVR011732R1300	
CC-E RTD/V	PT100 -50...+50 °C	0-10 V	1SVR011733R1400	
CC-E RTD/I		0-20 mA	1SVR011734R1500	
CC-E RTD/I		4-20 mA	1SVR011735R1600	
CC-E RTD/V	PT100 0...300 °C	0-10 V	1SVR011736R1700	
CC-E RTD/I		0-20 mA	1SVR011737R1000	
CC-E RTD/I		4-20 mA	1SVR011738R2100	
CC-E RTD/V	PT100 0...+250 °C	0-10 V	1SVR011739R2200	
CC-E RTD/I		0-20 mA	1SVR011740R0700	
CC-E RTD/I		4-20 mA	1SVR011741R2400	

#### Supply voltage: 110-240 V AC universal

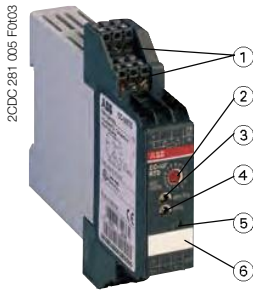
Type	Input signal	Output signal	Order Code	Price
CC-E/RTD	refer to table	0-10 V, 0-20 mA, 4-20 mA	1SVR011706R2200	
<b>single-function</b>				
CC-E RTD/V	PT100 0...100 °C	0-10 V	1SVR011788R2400	
CC-E RTD/I		0-20 mA	1SVR011789R2500	
CC-E RTD/I		4-20 mA	1SVR011790R2200	
CC-E RTD/V	PT100 -50...+50 °C	0-10 V	1SVR011791R1700	
CC-E RTD/I		0-20 mA	1SVR011792R1000	
CC-E RTD/I		4-20 mA	1SVR011793R1100	
CC-E RTD/V	PT100 0...300 °C	0-10 V	1SVR011794R1200	
CC-E RTD/I		0-20 mA	1SVR011795R1300	
CC-E RTD/I		4-20 mA	1SVR011796R1400	
CC-E RTD/V	PT100 0...+250 °C	0-10 V	1SVR011797R1500	
CC-E RTD/I		0-20 mA	1SVR011798R2600	
CC-E RTD/I		4-20 mA	1SVR011799R2700	



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**2CDC110004C0206**



# Temperature signal converter for RTD sensors CC-U/RTD & CC-U/RTDR with relay output



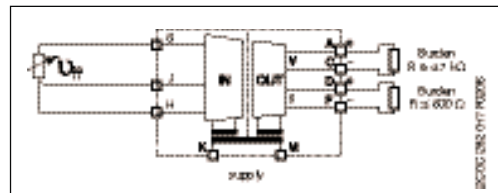
**CC-U/RTD**

- ① Plug-in connecting terminals
- ② Gain: Coarse adjustment
- ③ Gain: Fine adjustment
- ④ Offset adjustment
- ⑤ U: green LED - supply voltage
- ⑥ Marker label

CC-U/RTD universal signal converter for PT10, PT100, PT1000 temperature sensors (acc. to IEC 751 and JIS C 1604<sup>1)</sup>, linearized with 3-way electrical isolation

- Configurable output signal response on input signal interruption (low / high fail safe)
- Adjustment and operating elements on the front-side
- Short-circuit proof signal outputs
- Plug-in connecting terminals for inputs, outputs and supply
- 2- or 3-wire connection

**Wiring diagrams**

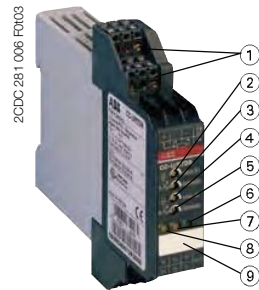


**DIP switch settings**

Type	Input Range	Switch 1					Switch 2					Gain Coarse	Switch 3						
		1	2	3	4	5	1	2	3	4	5		6	Output	1	2	3		
PT10	0...500 °C											F				0...5 V			
	0...550 °C											E				0...10 V			
	0...600 °C											D				1...5 V			
	0...650 °C											C				2...10 V			
	0...700 °C											B				-10...+10 V			
	0...750 °C											A				-5...+5 V			
PT100	0...400 °C											9				-10...0 V			
	0...450 °C											8				-5...0 V			
	0...500 °C											7				0...4.88 V			
	0...550 °C											6				-10...+3.33 V			
	0...600 °C											5				-5...+1.66 V			
	0...650 °C											4				0...8 V			
PT1000	0...10 °C											3				0...4 V			
	0...20 °C											2				-10...2 V			
	0...30 °C											1				1.25...6.25 V			
	0...40 °C											0				-7.5...+2.5 V			
	0...50 °C											0				-3.75...+1.25 V			
	0...60 °C											0				1.66...3.33 V			

\*) Detection of input signal interruptions:  
If the input signal circuit is interrupted, the output signal changes to the adjusted minimum value (low fail safe) or maximum value (high fail safe).

Legend:  
 ON  
 OFF  
 no influence



**CC-U/RTDR**

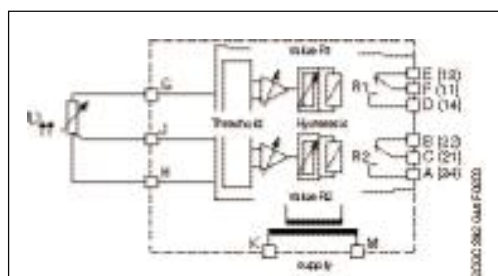
- ① Plug-in connecting terminals
- ② Threshold value for R1
- ③ Hysteresis for R1
- ④ Threshold value for R2
- ⑤ Hysteresis for R2
- ⑥ U: green LED - supply voltage
- ⑦ R2: yellow LED - Relay 2 energized
- ⑧ R1: yellow LED - Relay 1 energized
- ⑨ Marker label

CC-U/RTDR universal signal converter for temperature and resistance signals, with 2 threshold relay outputs and 3-way electrical isolation

- Temperature signal converter for PT100 signals (5 ranges up to 800 °C) and variable resistances from 0-380 Ω
- 2 threshold relay outputs with one c/o contact each (threshold and respective hysteresis can be adjusted independently from each other)
- Open-circuit or closed-circuit principle configurable by means of a DIP switch
- 2 yellow LEDs for clear status indication of the output relays
- Plug-in connecting terminals for inputs, outputs and supply
- 2- or 3-wire connection

Type	Rated supply voltage	Order Code	Price
CC-U/STD	24-48 V DC	1SVR040002R0500	
	110-240 V AC	1SVR040003R0600	

**Wiring instruction**



**DIP switch settings**

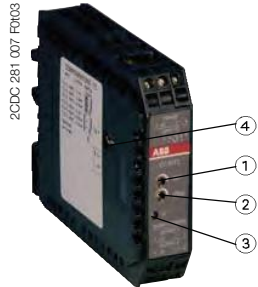
Input PT100	Switch					Output
	1	2	3	4	5	
0...100 °C						0...5 V
0...200 °C						0...10 V
0...300 °C						-10...+10 V
0...400 °C						-5...+5 V
0...500 °C						-10...0 V
0...600 °C						-5...0 V

Legend:  
 ON  
 OFF  
 no influence



# Temperature signal converter for thermocouples CC-E/TC

1



## CC-E/TC

- ① Gain adjustment
- ② Offset adjustment
- ③ U: green LED - supply voltage
- ④ DIP switch for input and output configuration (only available on universal devices)

<sup>1)</sup> 1604 Class I, Div.2 (universal device)

CC-E/TC analog signal converter for thermocouple signals of the types J and K with 3-way electrical isolation

- 2 universally configurable devices (type CC-E/TC)
- 2x6 single-function devices
- "Plug and Work", no adjustment of single-function devices required

Type	Input signal	Output signal	Order Code	Price
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Supply voltage: 24 V DC universal

CC-E/TC	thermocouple types J and K	0-10 V, 0-20 mA, 4-20 mA	1SVR011702R2600 <sup>1)</sup>	
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single-function

CC-E TC/V	type J 0...600 °C	0-10 V	1SVR011750R0100	
CC-E TC/I		0-20 mA	1SVR011751R2600	
CC-E TC/I		4-20 mA	1SVR011752R2700	

CC-E TC/V	type K 0...1000 °C	0-10 V	1SVR011753R2000	
CC-E TC/I		0-20 mA	1SVR011754R2100	
CC-E TC/I		4-20 mA	1SVR011755R2200	

Supply voltage: 110-240 V AC universal

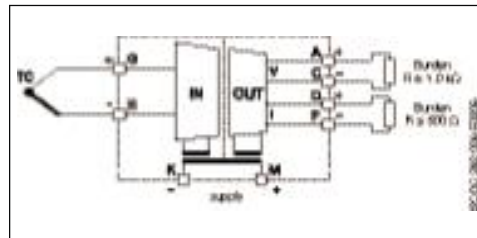
CC-E/TC	thermocouple types J and K	0-10 V, 0-20 mA, 4-20 mA	1SVR011707R2300	
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single-function

CC-E TC/V	type J 0...600 °C	0-10 V	1SVR011760R0300	
CC-E TC/I		0-20 mA	1SVR011761R2000	
CC-E TC/I		4-20 mA	1SVR011762R2100	

CC-E TC/V	type K 0...1000 °C	0-10 V	1SVR011763R2200	
CC-E TC/I		0-20 mA	1SVR011764R2300	
CC-E TC/I		4-20 mA	1SVR011765R2400	

## Wiring instruction



## DIP switch settings (universal devices)

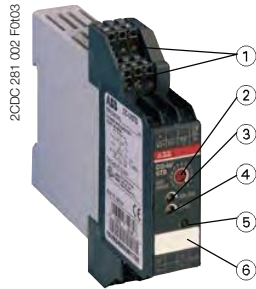
Input	Output	Switch			
		T	I	S	E
TC-J 0...600 °C	0-10V	ON	ON	ON	ON
	0-20mA 4-20mA	OFF	OFF	OFF	OFF
TC-K 0...1000 °C	0-10V	ON	ON	ON	ON
	0-20mA 4-20mA	OFF	OFF	OFF	OFF
160758 c396 170676 c396					

Legend:  
 ON  
 OFF  
 No influence



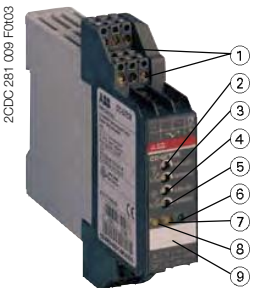
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2CDC110004C0206

# Temperature signal converter for thermocouples CC-U/TC and CC-U/TCR



CC-U/TC

- ① Plug-in terminals
- ② Gain: Coarse adjustment
- ③ Gain: Fine adjustment
- ④ Offset adjustment
- ⑤ U: green LED - supply voltage
- ⑥ Marker label



CC-U/TCR

- ① Plug-in connecting terminals
- ② Threshold value for R1
- ③ Hysteresis for R1
- ④ Threshold value for R2
- ⑤ Hysteresis for R2
- ⑥ U: green LED - supply voltage
- ⑦ R2: yellow LED - Relay 2 energized
- ⑧ R1: yellow LED - Relay 1 energized
- ⑨ Marker label



Full range of product and technical information place this part number in a search engine and download  
2CDC110004C0206

## CC-U/TC universal signal converter for thermocouples with 3-way electrical isolation

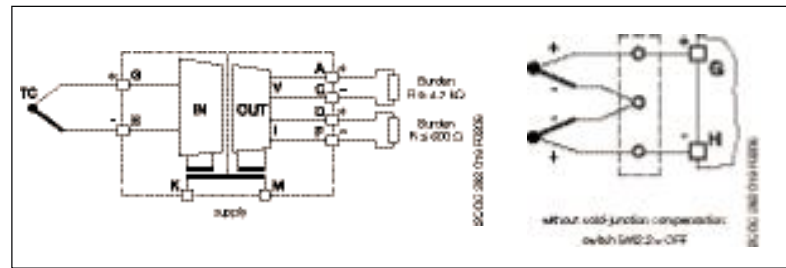
- Temperature signal converter for thermocouples of the types K, J, T, S, E, N, R, B
- Continuously adjustable voltage signal input 0-10 mV and 0-50 mV
- Differential temperature meas. possible <sup>1)</sup>
- Configurable output signal response on input signal interruption (low fail safe / high fail safe)
- Adjustment and operating elements on the front-side
- Short-circuit proof signal outputs
- Plug-in connecting terminals for inputs, outputs and supply

### DIP switch settings

Type	Input Range	Switch 1						Switch 2							
		1	2	3	4	5	6	1	2	3	4	5	6		
K	0-100...900 °C														
K	0-250...1850 °C														
J	0-100...750 °C														
T	0-100...400 °C														
T	-150...-400 °C														
S	0-250...1500 °C														
S	0-100...700 °C														
E	0-200...1000 °C														
N	0-100...650 °C														
N	0-200...1300 °C														
R	0-250...1850 °C														
R	0-450...1700 °C														
B	0-700...1750 °C														
mV	0-2...10 mV														
mV	0-10...50 mV														
Low fail safe <sup>1)</sup>															
High fail safe <sup>1)</sup>															

Output	Switch 3					
	1	2	3	4	5	6
0...5 V						
0...10 V						
1...5 V						
2...10 V						
-10...+10 V						
-5...+5 V						
-10...0 V						
-5...0 V						
0...6.66 V						
-10...+3.33 V						
-5...+1.66 V						
0.8 V						
0.4 V						
-10...-2 V						
-5...-1 V						
1.25...6.25 V						
-7.5...+2.5 V						
-3.75...+1.25 V						
1.66...8.33 V						
-6.66...+6.66 V						
-3.33...+3.33 V						
-8...0 V						
-4...0 V						
0...1 mA						
0...20 mA						
4...20 mA						
0...10 mA						
0...0.5 mA						
0...13.33 mA						
0...666 µA						
0...16 mA						
0...800 µA						
0...8 mA						
0...400 µA						
2.5...12.5 mA						
125...625 µA						
3.33...16.66 mA						
166...833 µA						
0...1 mA						
2...10 mA						
100...500 µA						

### Wiring instruction

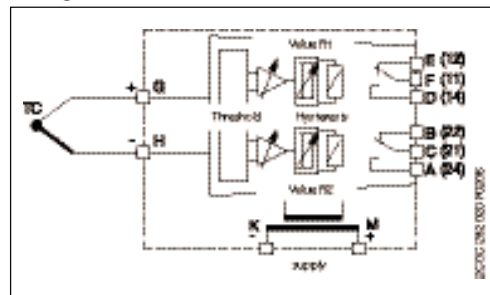


Type	Rated supply voltage	Order Code	Price
CC-U/TC	24-48 V DC	1SVR040004R0700	
	110-240 V AC	1SVR040005R0000	

## CC-U/TCR universal signal converter for thermocouples, with 2 threshold relay outputs and 3-way electrical isolation

- Temperature signal converter for thermocouples of the types K, J, T, S
- 2 threshold relay outputs with one change-over contact each (threshold and respective hysteresis can be adjusted independently from each other)
- Open-circuit or closed-circuit principle configurable by means of a DIP switch
- 2 yellow LEDs for clear status indication of the output relays
- Plug-in connecting terminals for inputs, outputs and supply

### Wiring instruction



### DIP switch settings

Type	Input Range	Switch					
		1	2	3	4	5	6
J	0...240 °C						
J	0...480 °C						
J	0...1200 °C						
K	0...250 °C						
K	0...500 °C						
K	0...1350 °C						
T	-150...+120 °C						
T	0...220 °C						
T	0...400 °C						
S	0...210 °C						
S	0...380 °C						
S	0...860 °C						
S	0...1550 °C						
Output							
Closed-circuit principle							
Open-circuit principle							

Legend
■ ON
□ OFF
□ no influence

Type	Rated supply voltage	Order Code	Price
CC-U/TCR	24-48 V DC	1SVR040014R2000	
	110-240 V AC	1SVR040015R2100	

# Measuring converters

## CC-E I and CC-U/I

1



CC-E/I

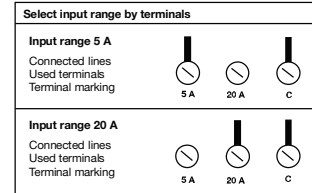
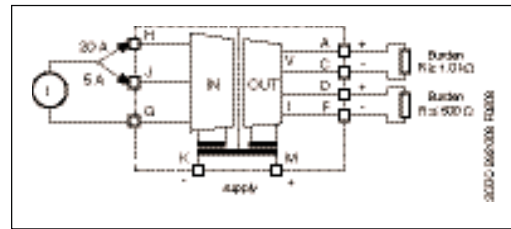
- ① Gain adjustment
- ② Offset adjustment
- ③ U: green LED - supply voltage
- ④ DIP switch for input and output configuration (only available on universal devices)

① 1604 Class I, Div.2 (universal device)

CC-E/I measuring converter for current signals 0-5 A, 0-20 A, AC/DC with 3-way electrical isolation

- 2 universally configurable devices (type CC-E/I)
- 2x6 single-function devices
- "Plug and Work", no adjustment of single-function devices required

### Wiring instruction

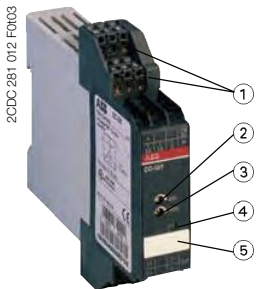


### DIP switch settings

Input	Output	Switch
		1   2   3   4   5   6
1 - DC	0...10 V	ON
1 - AC	0...10 V	OFF
1 - DC	0...20 mA	ON
1 - AC	0...20 mA	OFF
1 - DC	4...20 mA	ON
1 - AC	4...20 mA	OFF

Legend: ON (black square), OFF (white square)

Type	Input signal	Output signal	Order Code	Price
Supply voltage: 24 V DC universal				
CC-E/I	0-5 A, 0-20 A, AC/DC	0-10 V, 0-20 mA, 4-20 mA	1SVR011703R2700 <sup>1)</sup>	
Supply voltage: 110-240 V AC universal				
CC-E/I	0-5 A, 0-20 A, AC/DC	0-10 V, 0-20 mA, 4-20 mA	1SVR011708R0400	



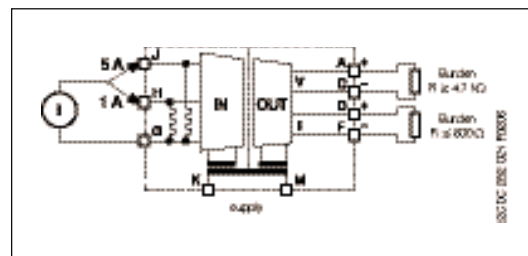
CC-U/I

- ① Plug-in connecting terminals
- ② Gain adjustment
- ③ Offset adjustment
- ④ U: green LED - supply voltage
- ⑤ Marker label

CC-U/I universal measuring converter for RMS values of 0-1 A and 0-5 A, with 3-way electrical isolation

- RMS converter for current signals up to 1 A and up to 5 A of any wave form (DC, DC with superimposed AC components, pure sinusoidal, triangular, phase-angle controlled, etc. in a measuring range of 0-600 Hz)
- Adjustment and operating elements on the front
- Short-circuit proof signal outputs
- Plug-in connecting terminals for inputs, outputs and supply

### Wiring instruction



### DIP switch settings

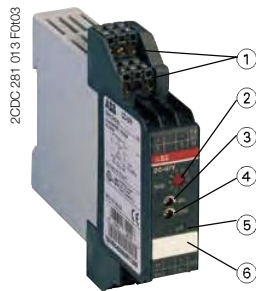
Output	Switch
	1   2   3   4   5   6
0...5 V	ON
0...10 V	OFF
1...5 V	ON
2...10 V	OFF
-10...+10 V	ON
-5...+5 V	OFF
-10...0 V	ON
-5...0 V	OFF
0...6.66 V	ON
-10...+3.33 V	OFF
-5...+1.66 V	ON
0...8 V	OFF
0...4 V	ON
-10...-2 V	OFF
-5...-1 V	ON
1.25...6.25 V	OFF
-7.5...+2.5 V	ON
-3.75...-1.25 V	OFF
1.66...8.33 V	ON
-6.66...+6.66 V	OFF
-3.33...+3.33 V	ON
-8...0 V	OFF
-4...0 V	ON
0...1 mA	OFF
0...20 mA	ON
4...20 mA	OFF
0...10 mA	ON
0...0.5 mA	OFF
0...13.33 mA	ON
0...666 μA	OFF
0...16 mA	ON
0...800 μA	OFF
0...8 mA	ON
0...400 μA	OFF
2.5...12.5 mA	ON
125...625 μA	OFF
3.33...16.66 mA	ON
166...833 μA	OFF
0.2...1 mA	ON
2...10 mA	OFF
100...500 μA	ON

Legend: ON (black square), OFF (white square), no influence (grey square)



Type	Rated supply voltage	Order Code	Price
CC-U/I	24-48 V DC	1SVR040006R0100	
	110-240 V AC	1SVR040007R0200	

# Measuring converter for voltage RMS values CC-U/V and accessories



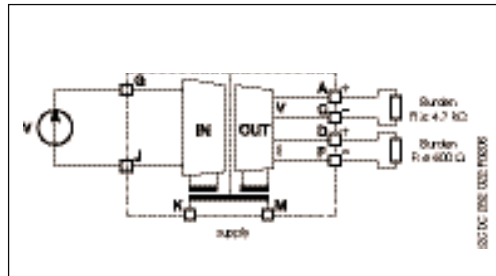
CC-U/V universal measuring converter for RMS values of 0-600 V, with 3-way electrical isolation

- RMS converter for voltage signals up to 600 V of any wave form (DC, DC with superimposed AC components, pure sinusoidal, triangular, phase-angle controlled, etc. in a measuring range of 0-600 Hz)
- Adjustment and operating elements on the front
- Short-circuit proof signal outputs
- Plug-in connecting terminals for inputs, outputs and supply

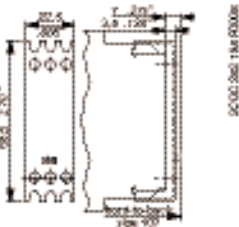
## CC-U/V

- 1 Plug-in connecting terminals
- 2 Input voltage range selection
- 3 Gain adjustment
- 4 Offset adjustment
- 5 U: green LED - supply voltage
- 6 Marker label

## Wiring instruction



Type	Rated supply voltage	Order Code	Price
CC-U/V	24-48 V DC	1SNA040008R1300	
	110-240 V AC	1SNA040009R1400	



Sealable cover  
COV.01

## Accessories for CC-U

### Sealable transparent cover

Type	for type	Width mm	Order Code	Price
CC-U/I	CC-U	22.5	1SVR405600R4000	



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# Serial data converters

## ILPH

1



Type	Order Code	Price
ILPH RS 232-RS 485 / Ethernet	1SNA684252R0200	
	1SNA684231R2500	
ILPH RS 232 / RS 422-485	1SNA684233R2700	
	1SNA684333R2300	
ILPH RS 232 / RS 232	1SNA684334R2400	
	1SNA684234R2000	
ILPH RS 422 - 485 / RS 422 - 485	1SNA684244R0200	
	1SNA684212R2200	
ILPH RS 232 / FO-S	1SNA684236R2200	
	1SNA684237R2300	
ILPH RS 232 / FO-P	1SNA684238R0400	
	1SNA684239R0500	
LPH RS 485 / FO-S	1SNA684246R0400	
	1SNA684247R0500	
ILPH RS 485 / FO-P	1SNA684248R1600	
	1SNA684249R1700	
ILPH BdC / RS 422 - 485	1SNA684232R2600	
	1SNA684202R0100	

### Rated supply voltage $U_s$

24 V DC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
115 - 230 V AC				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>								
24 - 48 V DC			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>									
24 - 42 V AC/DC							<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
10 - 34 V DC	<input checked="" type="checkbox"/>													
10 - 24 V AC	<input checked="" type="checkbox"/>													
110 - 240 V AC/DC								<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		

### Input signal

RS 232	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RS 422								<input checked="" type="checkbox"/>						
RS 485	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Current loop													<input checked="" type="checkbox"/>	

### Output signal

RS 232					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
RS 422		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	
RS 485		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	
Current loop														<input checked="" type="checkbox"/>
Fiber optic glass								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Fiber optic plastic								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Ethernet	<input checked="" type="checkbox"/>													

### Galvanic isolation

3 way isolation	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
No isolation		<input checked="" type="checkbox"/>												

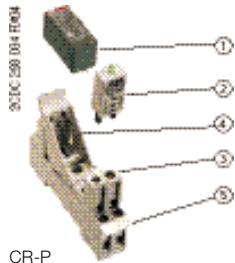


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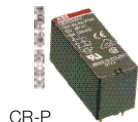
# Pluggable interface relays CR-P

## Pcb relays



CR-P

- 1 interface relay
- 2 Pluggable function module
- 3 Socket
- 4 Holder
- 5 Marker



CR-P



CR-PLS



CR-PSS



CR-PLC



CR-PH



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Type	Rated control supply voltage	Order Code	Price
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### Interface relays

1 c/o contact: 250 V, 16 A

CR-P012DC1	12 V DC	1SVR405600R4000	
CR-P024DC1	24 V DC	1SVR405600R0000	
CR-P024AC1	24 V AC	1SVR405600R1000	
CR-P110AC1	110 V AC	1SVR405600R7000	
CR-P230AC1	230 V AC	1SVR405600R3000	

2 c/o contacts: 250 V, 8 A

CR-P012DC2	12 V DC	1SVR405601R4000	
CR-P024DC2	24 V DC	1SVR405601R1000	
CR-P024AC2	24 V AC	1SVR405601R0000	
CR-P110AC2	110 V AC	1SVR405601R7000	
CR-P230AC2	230 V AC	1SVR405601R3000	

### Interface relays with gold contacts

2 c/o gold contacts: 250 V, 8 A

CR-P024DC2G	24 V DC	1SVR405606R1000	
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### Accessories - Sockets

Type	Version	Connection terminals	Order Code	Price
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#### Sockets

CR-PLS	Logical socket with protective separation	screw	1SVR405650R0000	
CR-PSS	Standard socket	screw	1SVR405650R1000	

#### Socket accessories

CR-PH	Plastic Holder		1SVR405659R0000	
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#### Markers

CR-P	Marker		1SVR405658R0000	
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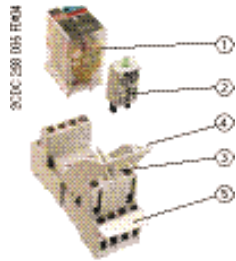
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# Pluggable interface relays CR-M

## Miniature relays

1



CR-M

- 1 Interface relay
- 2 Pluggable function module
- 3 Socket
- 4 Holder
- 5 Marker



CR-M

Type	Rated control supply voltage	Order Code	Price
<b>Interface relays without LED 2 c/o contacts: 250 V, 12 A</b>			
CR-M012DC2	12 V DC	1SVR405611R4000	
CR-M024DC2	24 V DC	1SVR405611R1000	
<b>3 c/o contacts: 250 V, 10 A</b>			
CR-M012DC3	12 V DC	1SVR405612R4000	
CR-M024DC3	24 V DC	1SVR405612R1000	
CR-M024AC2	24 V AC	1SVR405611R0000	
CR-M110AC2	110 V AC	1SVR405611R7000	
CR-M230AC2	230 V AC	1SVR405611R3000	
<b>4 c/o contacts: 250 V, 6 A</b>			
CR-M012DC4	12 V DC	1SVR405613R4000	
CR-M024DC4	24 V DC	1SVR405613R1000	
CR-M024AC4	24 V AC	1SVR405613R0000	
CR-M110AC4	110 V AC	1SVR405613R7000	
CR-M230AC4	230 V AC	1SVR405613R3000	

Type	Rated control supply voltage	Order Code	Price
<b>Interface relays with LED 2 c/o contacts: 250 V, 12 A</b>			
CR-M012DC2L	12 V DC	1SVR405611R4100	
CR-M024DC2L	24 V DC	1SVR405611R1100	
CR-M024AC2L	24 V AC	1SVR405611R0100	
CR-M110AC2L	110 V AC	1SVR405611R7100	
CR-M230AC2L	230 V AC	1SVR405611R3100	
<b>3 c/o contacts: 250 V, 10 A</b>			
CR-M012DC3L	12 V DC	1SVR405612R4100	
CR-M024DC3L	24 V DC	1SVR405612R1100	
CR-M024AC3L	24 V AC	1SVR405612R0100	
CR-M110AC3L	110 V AC	1SVR405612R7100	
CR-M230AC3L	230 V AC	1SVR405612R3100	
<b>4 c/o contacts: 250 V, 6 A</b>			
CR-M012DC4L	12 V DC	1SVR405613R4100	
CR-M024DC4L	24 V DC	1SVR405613R1100	
CR-M110DC4L	110 V DC	1SVR405613R8100	
CR-M024AC4L	24 V AC	1SVR405613R0100	
CR-M110AC4L	110 V AC	1SVR405613R7100	
CR-M230AC4L	230 V AC	1SVR405613R3100	

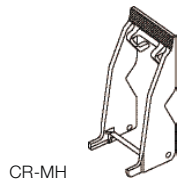
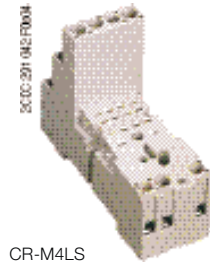


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# Pluggable interface relays CR-M

## Miniature relays



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Type	Rated control supply voltage	Order Code	Price
<b>Interface relays with gold contacts 4 c/o contacts: 250 V, 6 A</b>			
CR-M024DC4G	24 V DC	1SVR405618R1000	
<b>Interface relays with gold contacts and LED 4 c/o contacts: 250 V, 6 A</b>			
CR-M024DC4LG	24 V DC	1SVR405618R1100	
CR-M024AC4LG	24 V AC	1SVR405618R0100	
CR-M110AC4LG	110 V AC	1SVR405618R7100	
CR-M230AC4LG	230 V AC	1SVR405618R3100	

### Accessories - Sockets

Type	Version	Connection terminals	Order Code	Price
<b>Sockets</b>				
CR-M2LS	Logical socket <sup>1)</sup> for 2 c/o	screw	1SVR405651R1100	
CR-M3LS	Logical socket <sup>1)</sup> for 3 c/o		1SVR405651R2100	
CR-M4LS	Logical socket <sup>1)</sup> for 2/4 c/o		1SVR405651R3100	
CR-M2LC	Logical socket <sup>1)</sup> for 2 c/o	spring connection	1SVR405651R1200	
CR-M4LC	Logical socket <sup>1)</sup> for 2/4 c/o		1SVR405651R3200	
CR-M2SS	Standard socket for 2 c/o	screw	1SVR405651R1000	
CR-M3SS	Standard socket for 3 c/o		1SVR405651R2000	
CR-M4SS	Standard socket for 2/4 c/o		1SVR405651R3000	

### Socket accessories

CR-MH	Plastic holder	1SVR405659R1000	
CR-MH1	Metal holder	1SVR405659R1100	

### Markers

CR-M	Marker	1SVR405658R1000	
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# Pluggable interface relays CR-P, CR-M - Accessories

## Pluggable function modules

1



CR-P/M ..

Type	Rated control supply voltage	Version	Order Code	Price
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### Diode - Reverse polarity protection/free wheeling diode

CR-P/M 22	6-230 V DC	A1+, A2-	1SVR405651R0000	
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### Diode and LED - Reverse polarity protection/free wheeling diode

CR-P/M 42	6-24 V DC	red, A1+, A2-	1SVR405652R0000	
CR-P/M 42V	6-24 V DC	green, A1+, A2-	1SVR405652R1000	
CR-P/M 42B	24-60 V DC	red, A1+, A2-	1SVR405652R4000	
CR-P/M 42BV	24-60 V DC	green, A1+, A2-	1SVR405652R4100	
CR-P/M 42C	110-230 V DC	red, A1+, A2-	1SVR405652R9000	
CR-P/M 42CV	110-230 V DC	green, A1+, A2-	1SVR405652R9100	

### RC element - Spark quenching

CR-P/M 52B	6-24 V AC		1SVR405653R0000	
CR-P/M 52D	24-60 V AC		1SVR405653R4000	
CR-P/M 52C	110-230 V AC		1SVR405653R1000	

### Diode and LED

CR-P/M 62	6-24 V AC/DC	red, for DC A1+, A2-	1SVR405654R0000	
CR-P/M 62V	6-24 V AC/DC	green, for DC A1+, A2-	1SVR405654R1000	
CR-P/M 62E	24-60 V AC/DC	red, for DC A1+, A2-	1SVR405654R4000	
CR-P/M 62EV	24-60 V AC/DC	green, for DC A1+, A2-	1SVR405654R4100	
CR-P/M 92	110-230 V AC/DC	red, for DC A1+, A2-	1SVR405654R0100	
CR-P/M 92V	110-230 V AC/DC	green, for DC A1+, A2-	1SVR405654R1100	

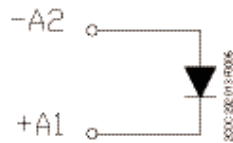
### Varistor and LED - Overvoltage protection

CR-P/M 62C	6-24 V AC/DC	red, for DC A1+, A2-	1SVR405655R0000	
CR-P/M 62CV	6-24 V AC/DC	green, for DC A1+, A2-	1SVR405655R1000	
CR-P/M 62D	24-60 V AC/DC	red, for DC A1+, A2-	1SVR405655R4000	
CR-P/M 62DV	24-60 V AC/DC	green, for DC A1+, A2-	1SVR405655R4100	
CR-P/M 92C	110-230 V AC/DC	red, for DC A1+, A2-	1SVR405655R0100	
CR-P/M 92CV	110-230 V AC/DC	green, for DC A1+, A2-	1SVR405655R1100	

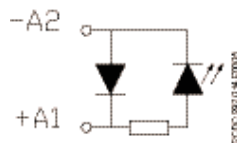
### Varistor - Overvoltage protection

CR-P/M 72	24 V AC		1SVR405656R0000	
CR-P/M 72A	115 V AC		1SVR405656R1000	
CR-P/M 82	230 V AC		1SVR405656R2000	

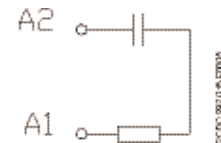
### Connection diagrams



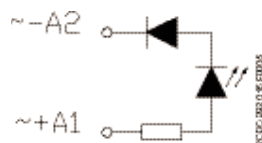
CR-P/M 22



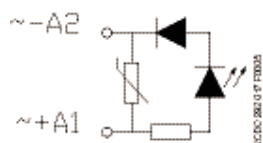
CR-P/M 42, CR-P/M 42B, CR-P/M 42V, CR-P/M 42BV, CR-P/M 42C, CR-P/M 42CV



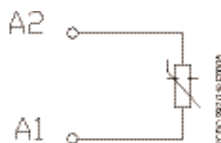
CR-P/M 52B, CR-P/M 52D



CR-P/M 62, CR-P/M 62E, CR-P/M 62V, CR-P/M 62EV, CR-P/M 92, CR-P/M 92V



CR-P/M 62C, CR-P/M 62D, CR-P/M 62CV, CR-P/M 62DV, CR-P/M 92C, CR-P/M 92CV



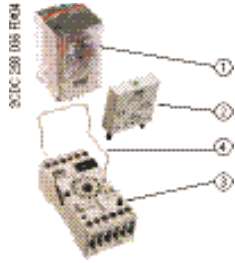
CR-P/M 72, CR-P/M 72A, CR-P/M 82



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# Pluggable interface relays CR-U

## Universal relays



CR-U

- 1 Interface relay
- 2 Pluggable function module
- 3 Socket
- 4 Holder



CR-U



CR-U3S



CR-U3E



CR-UH



Full range of product and technical information place this part number in a search engine and download  
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Type	Rated control supply voltage	Order Code	Price
<b>Interface relays without LED: 2 c/o contacts: 250 V, 10 A</b>			
CR-U012DC2	12 V DC	1SVR405621R4000	
CR-U024DC2	24 V DC	1SVR405621R1000	
CR-U024AC2	24 V AC	1SVR405621R0000	
CR-U110AC2	110 V AC	1SVR405621R7000	
CR-U230AC2	230 V AC	1SVR405621R3000	

<b>Interface relays without LED: 3 c/o contacts: 250 V, 10 A</b>			
CR-U012DC3	12 V DC	1SVR405622R4000	
CR-U024DC3	24 V DC	1SVR405622R1000	
CR-U024AC3	24 V AC	1SVR405622R0000	
CR-U110AC3	110 V AC	1SVR405622R7000	
CR-U230AC3	230 V AC	1SVR405622R3000	

<b>Interface relays with LED: 2 c/o contacts: 250 V, 10 A</b>			
CR-U012DC2L	12 V DC	1SVR405621R4100	
CR-U024DC2L	24 V DC	1SVR405621R1100	
CR-U024AC2L	24 V AC	1SVR405621R0100	
CR-U110AC2L	110 V AC	1SVR405621R7100	
CR-U230AC2L	230 V AC	1SVR405621R3100	

<b>Interface relays with LED: 3 c/o contacts: 250 V, 10 A</b>			
CR-U012DC3L	12 V DC	1SVR405622R4100	
CR-U024DC3L	24 V DC	1SVR405622R1100	
CR-U024AC3L	24 V AC	1SVR405622R0100	
CR-U110AC3L	110 V AC	1SVR405622R7100	
CR-U230AC3L	230 V AC	1SVR405622R3100	

### Accessories - Sockets + Function Modules

Type	Version	Order Code	Price
<b>Sockets</b>			
CR-U2S	Socket for 2 c/o and module	1SVR405670R0000	
CR-U3S	Socket for 3 c/o and module	1SVR405660R0000	
CR-U3E	Socket for 3 c/o	1SVR405660R0100	

### Accessories Sockets

CR-UH	Holder for CR-U socket	1SVR405669R0000	
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### Diode - Reverse polarity protection/free wheeling diode

CR-U21	6-230v DC A1+, A2-	1SVR405661R0000	
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### Diode & LED - Reverse polarity protection/free wheeling diode

CR-U41	6-24v DC Red, A1+, A2-	1SVR405662R0000	
CR-U41V	6-24v DC Green, A1+, A2-	1SVR405662R1000	

### Varistor - Overvoltage protection

CR-U71	6-24v AC	1SVR405666R0000	
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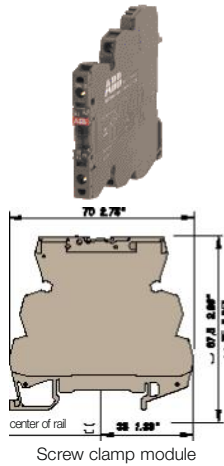
# Relays and optocouplers

## Relay Interfaces - R600 relay modules

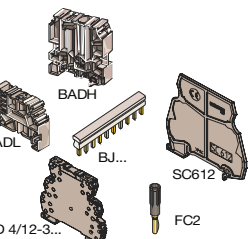
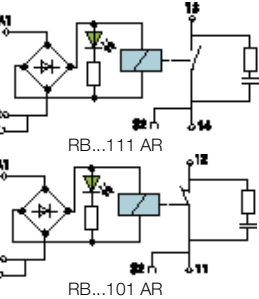
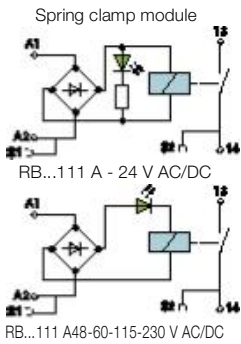


DIN 3

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Screw clamp module



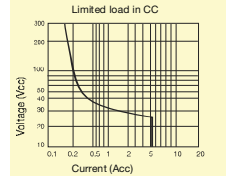
Relay : 1NO or 1NC high level contact 10 mA to 6 A - 6 mm .236» or 12 mm .472» spacing

### Characteristics

Relay characteristics	RB 111 A					RB 111 AI	RB 111 AR	RB 101 AR
	24 VAC/DC	48 VAC/DC	60 VAC/DC	115 VAC/DC	230 VAC/DC	24 VAC/DC	24 VAC/DC	24 VAC/DC
<b>COIL</b>								
Rated voltage +20%, -15% on DC ; +10%, -10% on AC	24 VAC/DC	48 VAC/DC	60 VAC/DC	115 VAC/DC	±10% on AC +10% -15% on DC 230 VAC/DC	24 VAC/DC	24 VAC/DC	24 VAC/DC
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Power	0,24 W	0,34 W	0,54 W	0,46 W	0,8 W	0,24 W	0,24 W	0,24 W
Rated current	10 mA	7 mA	9 mA	4 mA	3,5 mA	10 mA	10 mA	10 mA
Drop-out voltage at 20°C	4,5 V	8 V	8 V	17 V	27 V	4,5 V	4,5 V	4,5 V
Status device	green LED						green LED	green LED
<b>CONTACT</b>								
Type	1 NO						1 NO + RC	1 NC + RC
Voltage switching range min./max.	12 V / 250 V AC							
Current switching range min./max.	10 mA / 6 A							
Load switching range	0,6 VA / 1500 VA (ohmic load)							
AC1 min. / max.	0,6 W / 140 W							
DC1 min. / max.	10 <sup>3</sup> on AC15							
Number of on-load operations	10 <sup>7</sup>							
Number of off-load operations	10 <sup>7</sup>							
Operating speed	F 5 ms	5 ms	5 ms	6 ms	7 ms	5 ms	5 ms	5 ms
	O 8 ms	8 ms	8 ms	15 ms	15 ms	8 ms	8 ms	8 ms
Bounce	1,2 ms							
Insulation coil / contact	4000 V RMS							
Resistance to shock coil / contact	4000 V RMS							
Insulation contact / contact	1000 V RMS							
Ambient temperature storage	-40°C to +80°C							
operating	-20°C to +70°C (1)							
<b>Other characteristics</b>	Screw clamp				Spring clamp			
Body material	grey UL 94 V0				grey UL 94 V0			
Wire size	Solid wire 0,2 - 4 mm <sup>2</sup> / 24 - 12 AWG				Solid wire 0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG			
Stranded wire	0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG				0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG			
Rated wire size	2,5 mm <sup>2</sup> / 12 AWG				2,5 mm <sup>2</sup> / 12 AWG			
Wire stripping length	9 mm .354"				9 mm .354"			
Recommended screwdriver	3,5 mm .137"				3,5 mm .137"			
Protection	IP20 NEMA1				IP20 NEMA1			
Recommended torque	0,4 - 0,6 Nm 3.5 - 5.3 lb.in				0,4 - 0,6 Nm 3.5 - 5.3 lb.in			
Approvals	UL, (pending), LRS, CE							

Reference standards CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.

(1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.



	DC12	AC12	DC13	AC15
24 V	6 A	6 A	1 A	3 A
110/120 V	0,3 A	6 A	0,2 A	3 A
220/230 V	0,2 A	6 A	0,1 A	3 A

Description	Type	Order Code	Price
Relay module 1 NO high level with safety switch 6 mm spacing	RB 111 A1-24VAC/DC	1SNA645063R2000	
	RB 111 A-24VAC/DC	1SNA645014R2700	
	RB 111 A-48-60VAC/D	1SNA645014R2700	
	RB 111 A-115VAC/DC	1SNA645016R2100	
	RB 111 A-230VAC/DC	1SNA645017R2200	
Relay mod. 1 NO high level w/contact protection 12 mm spacing	RB 111 AR-24VAC/DC	1SNA645018R0300	
Relay mod. 1 NC high level w/contact protection 12 mm spacing	RB 101 AR-24VAC/DC	1SNA645019R0400	

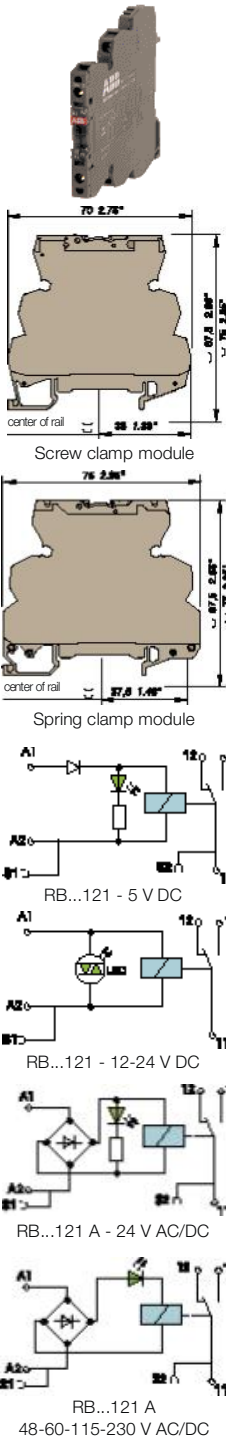
Accessories	Type	Order Code	Price
End stop	BADH V0	1SNA116900R2700	
	BADL V0	1SNA399903R0200	
	BAM2 V0	1SNA399067R0100	
Separator end section	SC612	1SNA290474R0200	
Divisible shunt 10 poles	BJ612-10	1SNA290488R0100	
Divisible shunt 70 poles	BJ612-70	1SNA290489R0200	
Screw clamp distribution block sp. 12mm	D4/12-3-3	1SNA345031R2000	
	D4/12-3R-3R	1SNA345631R2200	
Test plug DIA. 2mm	FC2	1SNA007865R2600	
Marking method	RC65 RC610	see marking	

# Relays and optocouplers

## Relay Interfaces - R600 relay modules



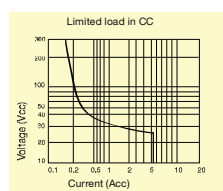
DIN 3



Relay : 1 SPDT high level contact 10 mA to 6 A - 6 mm .236» spacing

### Characteristics

Relay characteristics	RB 121				RB 121A				±10% on AC +10% -15% on DC 230 V AC/DC 50 / 60 Hz
	5 V DC	12 V DC	24 V DC	24 VAC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC	
<b>COIL</b>									
Rated voltage +20%, -15% on DC ; +10%, -10% on AC	5 V DC	12 V DC	24 V DC	24 VAC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC	
Frequency				50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
Power	0,2 W	0,2 W	0,28 W	0,24 W	0,33 W	0,54 W	0,46 W	0,8 W	
Rated current	40 mA	16 mA	12 mA	10 mA	7 mA	9 mA	4 mA	3,5 mA	
Drop-out voltage at 20°C	1,2 V	2,2 V	1,2 V	4,5 V	8 V	8 V	17 V	27 V	
Status device	green LED								
<b>CONTACT</b>									
Type	1 SPDT								
Voltage switching range min./max.	12 V / 250 V AC								
Current switching range min./max.	10 mA / 6 A								
Load switching range	0,6 VA / 1500 VA (ohmic load)								
AC1 min. / max.	0,6 W / 140 W								
DC1 min. / max.	10 <sup>5</sup> on AC15								
Number of on-load operations	10 <sup>7</sup>								
Number of off-load operations									
Operating speed	F 5 ms	5 ms	5 ms	5 ms	5 ms	5 ms	6 ms	7 ms	
	O 8 ms	8 ms	8 ms	8 ms	8 ms	8 ms	15 ms	16 ms	
Bounce	1,2 ms								
Insulation coil / contact	4000 V RMS								
Resistance to shock coil / contact	4000 V RMS								
Insulation contact / contact	1000 V RMS								
Ambient temperature storage	-40°C to +80°C								
operating	-20°C to +70°C (1)								
<b>Other characteristics</b>	Screw clamp				Spring clamp				
Body material	grey				UL 94 V0				
Wire	Solid wire				0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG				
size	Stranded wire				0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG				
Rated wire size	2,5 mm <sup>2</sup> / 12 AWG				2,5 mm <sup>2</sup> / 12 AWG				
Wire stripping length	9 mm .354"				9 mm .354"				
Recommended screwdriver	3,5 mm .137"				3,5 mm .137"				
Protection	IP20 NEMA1				IP20 NEMA1				
Recommended torque	0,4 - 0,6 Nm 3.5 - 5.3 lb.in				0,4 - 0,6 Nm 3.5 - 5.3 lb.in				
Approvals	(pending for 12 V DC) ,  (pending) ,  ,								
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.								



	DC12	AC12	DC13	AC15
24 V	6 A	6 A	1 A	3 A
110/120 V	0,3 A	6 A	0,2 A	3 A
220/230 V	0,2 A	6 A	0,1 A	3 A

Description	Type	Order Code	Price
	RB 121-5VDC	1SNA645034R2300	
	RB 121-12VDC	1SNA645069R0000	
	RB 121-24VDC	1SNA645064R0100	
	RB 121 A-24VAC/DC	1SNA645001R0300	
	RB 121 A-48-60VAC/DC	1SNA645002R0400	
	RB 121 A-115VAC/DC	1SNA645003R0500	
	RB 121 A-230VAC/DC	1SNA645004R0400	

Accessories see page 1/80

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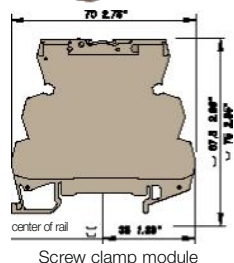
# Relays and optocouplers

## Relay Interfaces - R600 relay modules

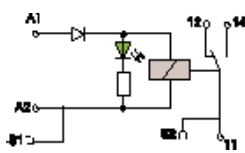


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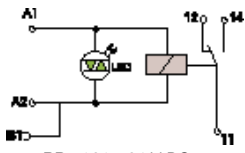
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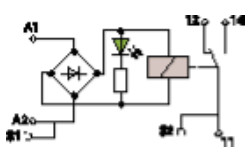
Screw clamp module



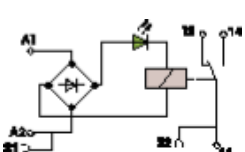
RB...121 - 5-12 V DC



RB...121 - 24 V DC



RB...121 A - 24 V AC/DC



RB...121 A

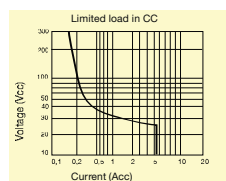
48-60-115-230 V AC/DC

Relay : 1 SPDT low level contact 1 mA upto 6 A - 6 mm .236» spacing

### Characteristics

Relay characteristics COIL	RB 121			RB 121 A				
	Rated voltage +20%, -15% on DC ; +10%, -10% on AC	5 V DC	12 V DC	24 V DC	24 VAC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC
Frequency				50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Power	0,2 W	0,2 W	0,28 W	0,24 W	0,33 W	0,54 W	0,46 W	0,8 W
Rated current	40 mA	16 mA	12 mA	10 mA	7 mA	9 mA	4 mA	3,5 mA
Drop-out voltage at 20°C	1,2 V	2,2 V	1,2 V	4,5 V	8 V	8 V	17 V	27 V
Status device	green LED							
<b>CONTACT</b>								
Type	1 SPDT							
Voltage switching range min./max.	5 V / 250 V AC							
Current switching range min./max.	1 mA / 6 A							
Load switching range	0,05 VA / 1500 VA (ohmic load) 0,05 W / 140 W							
Number of on-load operations	10 <sup>5</sup> on AC15							
Number of off-load operations	10 <sup>7</sup>							
Operating speed	F	5 ms	5 ms	5 ms	5 ms	5 ms	5 ms	6 ms
	O	8 ms	8 ms	8 ms	8 ms	8 ms	8 ms	15 ms
Bounce	1,2 ms							
Insulation coil / contact	4000 V RMS							
Resistance to shock coil / contact	4000 V RMS							
Insulation contact / contact	1000 V RMS							
Ambient temperature storage	-40°C to +80°C							
operating	-20°C to +70°C (1)							
<b>Other characteristics</b>	Screw clamp			Spring clamp				
Body material	grey			UL 94 V0				
Wire	Solid wire			0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG				
size	Stranded wire			0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG				
Rated wire size	2,5 mm <sup>2</sup> / 12 AWG			2,5 mm <sup>2</sup> / 12 AWG				
Wire stripping length	9 mm .354"			9 mm .354"				
Recommended screwdriver	3,5 mm .137"			3,5 mm .137"				
Protection	IP20 NEMA1			IP20 NEMA1				
Recommended torque	0,4 - 0,6 Nm 3.5 - 5.3 lb.in			0,4 - 0,6 Nm 3.5 - 5.3 lb.in				
Approvals	UL (pending for 24 V DC), CE (pending), LRS, CE							
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.							

(1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.



	DC12	AC12	DC13	AC15
24 V	6 A	6 A	1 A	3 A
110/120 V	0,3 A	6 A	0,2 A	3 A
220/230 V	0,2 A	6 A	0,1 A	3 A

Description	Type	Order Code	Price
	RB 121-5VDC	1SNA645036R2500	
	RB 121-12VDC	1SNA645037R2600	
	RB 121-24VDC	1SNA645065R0200	
Relay module 1 SPDT low level	RB 121 A-24VAC/DC	1SNA645005R0700	
	RB 121 A-48-60VAC/DC	1SNA645006R0000	
	RB 121 A-115VAC/DC	1SNA645007R0100	
	RB 121 A-230VAC/DC	1SNA645007R0100	

Accessories see page 1/80



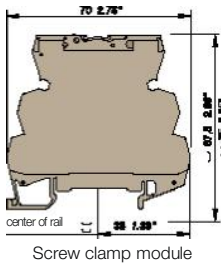
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# Relays and optocouplers

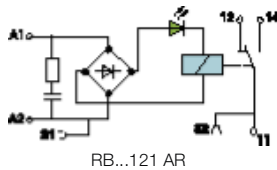
## Relay Interfaces - R600 relay modules



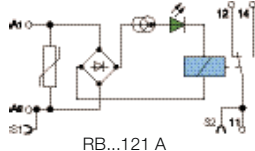
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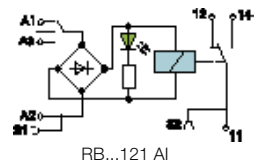
Screw clamp module



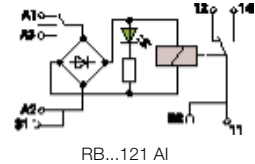
RB...121 AR



RB...121 A



RB...121 AI



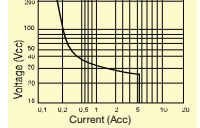
RB...121 A

- Relay : 1 SPDT high level with switch or large coil voltage range or with leakage current protection  
12 mm .472» spacing
- Relay : 1 SPDT low level with switch  
12 mm .472» spacing

### Characteristics

Relay characteristics	RB...121 AR		RB...121 AI		RB...121 AI		RB...121 A
	115 V AC/DC	230 V AC/DC	24 VAC/DC	24 VAC/DC	24 VAC/DC	24 VAC/DC	60 to 253 VAC/DC
<b>COIL</b>							
Rated voltage +20%, -15% on DC ; +10%, -10% on AC	±10% on AC +10% -15% on DC		24 VAC/DC	24 VAC/DC	24 VAC/DC	24 VAC/DC	60 to 253 VAC/DC
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Power	2 W	2,8 W	0,24 W	0,24 W	0,24 W	0,24 W	1 W
Rated current	18 mA	12 mA	10 mA	10 mA	10 mA	10 mA	4 mA max.
Drop-out voltage at 20°C	17 V	27 V	4,5 V	4,5 V	4,5 V	4,5 V	15 V
Permissible leakage current	1,6 mA		1 mA		1 mA		1 mA
Status device	green LED						
<b>CONTACT</b>							
Type	1 SPDT		1 SPDT		1 SPDT		1 SPDT
Voltage switching range min./max.	12 V / 250 V		5 V / 250 V		5 V / 250 V		12 V / 250 V
Current switching range min./max.	10 mA / 6 A		1 mA / 6 A		1 mA / 6 A		10 mA / 6 A
Load switching range							
AC1 min. / max.	0,6 VA / 1500 VA (ohmic load)		0,05 VA/1500 VA (ohmic load)		0,05 VA/1500 VA (ohmic load)		0,6 VA/1500 VA (ohmic load)
DC1 min. / max.	0,6 W / 140 W		0,05 W / 140 W		0,05 W / 140 W		0,6 W / 140 W
Number of on-load operations	10 <sup>5</sup> on AC15		10 <sup>5</sup> on AC15		10 <sup>5</sup> on AC15		10 <sup>5</sup> on AC15
Number of off-load operations	10 <sup>7</sup>						
Operating speed	F 6 ms	7 ms	5 ms	5 ms	5 ms	5 ms	7 ms
	O 15 ms	16 ms	8 ms	8 ms	8 ms	8 ms	20 ms
Bounce							
Insulation coil / contact	4000 V RMS						
Resistance to shock coil / contact	4000 V RMS						
Insulation contact / contact	1000 V RMS						
Ambient temperature storage	-40°C to +80°C						
operating	-20°C to +70°C (1)						
<b>Other characteristics</b>	Screw clamp			Spring clamp			
Body material	grey			UL 94 V0			
Wire	Solid wire			0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG			
size	Stranded wire			0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG			
Rated wire size	2,5 mm <sup>2</sup> / 12 AWG			2,5 mm <sup>2</sup> / 12 AWG			
Wire stripping length	9 mm .354"			9 mm .354"			
Recommended screwdriver	3,5 mm .137"			3,5 mm .137"			
Protection	IP20 NEMA1			IP20 NEMA1			
Recommended torque	0,4 - 0,6 Nm 3,5 - 5,3 lb.in			0,4 - 0,6 Nm 3,5 - 5,3 lb.in			
Approvals	c  us,  (pending),  ,						

Reference standards CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.  
 (1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.



	DC12	AC12	DC13	AC15
24 V	6 A	6 A	1 A	3 A
110/120 V	0,3 A	6 A	0,2 A	3 A
220/230 V	0,2 A	6 A	0,1 A	3 A

Description	Type	Order Code	Price
Relay mod. 1SPDT high level w/leakage current protec.	RB 121 AR-115VAC/DC	1SNA645046R0700	
	RB 121 AR-230VAC/DC	1SNA645011R2400	
	RB 121 A 60-230VAC/DC	1SNA645020R0100	
Relay mod. 1SPDT high level with switch	RB 121 AI-24VAC/DC	1SNA645032R2100	
Relay mod. 1SPDT high level with safety switch		1SNA645009R1300	
Relay module 1SPDT low level with switch		1SNA645033R2200	
Relay module 1SPDT low level with safety switch		1SNA645010R0700	

Accessories see page 1/80



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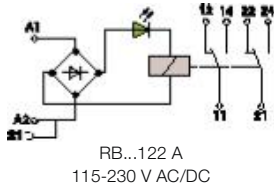
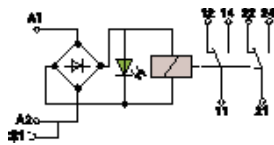
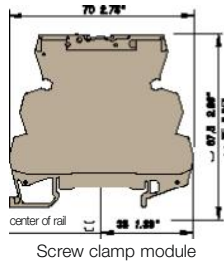
# Relays and optocouplers

## Relay Interfaces - R600 relay modules



DIN 3

1



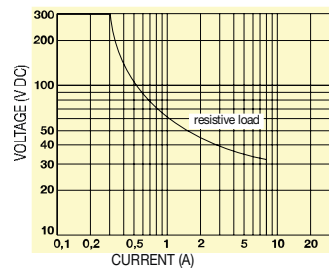
Relay : 1 DPDT low level contact 1 mA to 8 A - 12 mm .472» spacing

### Characteristics

Relay characteristics	RB...122A				
	24 VAC/DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	±10% on AC +10% -15% on DC 230 V AC/DC
<b>COIL</b>					
Rated voltage	+20%, -15% on DC ; +10%, -10% on AC				
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Power	0,48 W	0,62 W	0,96 W	0,58 W	1,15 W
Rated current	20 mA	13 mA	16 mA	5 mA	5 mA
Drop-out voltage at 20°C	5,4 V	8,8 V	8,8 V	20 V	10 V
Status device	green LED				
<b>CONTACT</b>					
Type	1 DPDT				
Voltage switching range min./max.	5 V / 250 V DC - 250 V AC				
Current switching range min./max.	1 mA / 8 A		1 mA / 5 A		
Load switching range	5 mA / 1500 VA				
AC1 min. / max.	5 mW / 192 W				
DC1 min. / max.	10 <sup>5</sup>				
Number of on-load operations	2 x 10 <sup>7</sup>				
Number of off-load operations					
Operating speed	F	6 ms	10 ms	10 ms	6 ms
	O	10 ms	14 ms	14 ms	15 ms
Bounce	1 ms				
Insulation coil / contact	3500 V RMS				
Resistance to shock coil / contact	3500 V RMS				
Insulation contact / contact	3500 V RMS (between 2 contacts)				
Ambient temperature	-40°C to +80°C				
storage	-20°C to +70°C (1)				
operating					
<b>Other characteristics</b>	Screw clamp		Spring clamp		
Body material	grey		UL 94 V0		
Wire	Solid wire		UL 94 V0		
size	0,2 - 4 mm <sup>2</sup> / 24 - 12 AWG		0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG		
Stranded wire	0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG		0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG		
Rated wire size	2,5 mm <sup>2</sup> / 12 AWG		2,5 mm <sup>2</sup> / 12 AWG		
Wire stripping length	9 mm .354"		9 mm .354"		
Recommended screwdriver	3,5 mm .137"		3,5 mm .137"		
Protection	IP20 NEMA 1		IP20 NEMA 1		
Recommended torque	0,4 - 0,6 Nm 3.5 - 5.3 lb.in		0,4 - 0,6 Nm 3.5 - 5.3 lb.in		
Approvals	UL, US, (pending), LRS, CE				
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.				

(1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.

### Max. DC load breaking capacity



Description	Type	Order Code	Price
Relay module 1 DPDT low level.	RB 122 A-24VAC/DC	1SNA645012R2500	
	RB 122 A-48-60VAC/DC	1SNA645040R1500	
	RB 122 A-115VAC/DC	1SNA645041R0200	
	RB 122 A-230VAC/DC	1SNA645013R2600	

Accessories see page 1/80



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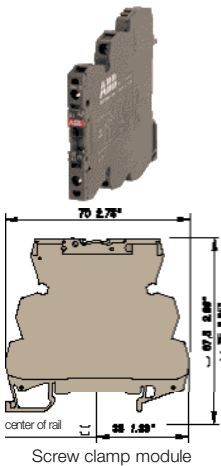
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# Relays and optocouplers

## Optocouplers - R600



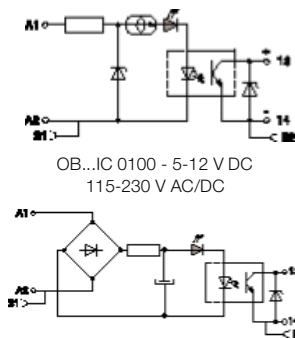
DIN 3



Optocoupler : 5 to 58 V DC output / 100 mA - 6 mm .236" spacing

### Characteristics

Opto. characteristics	OB...IC 0100					
<b>INPUT</b>						
Input voltage +20% -15% on DC, +10% -10% on AC	5 V DC - 12 V DC		24 V DC	48 V AC/DC	60 V AC/DC	115 V AC/DC 230 V AC/DC
Frequency				50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Input current AC/DC	5 mA	9 mA	4 mA	4 mA	5 mA	7 mA / 16mA 11,5 mA/25 mA
Pull-in voltage at Is=100%	4 V	4 V	15 V	25 V	25 V	60 VAC/70 VDC 60 VAC/70 VDC
Switching time C / O	10 µs / 500 µs		10 µs / 500 µs	5 ms / 20 ms		5 ms / 15 ms
Permissible leakage current	1000 Hz		1000 Hz	20 Hz		20 Hz
<b>OUTPUT</b>	0,9 mA		1 mA	0,9 mA		1,6 mA
Output voltage	4,5 to 58 VDC					
Output current min.	1 mA					
Output current max.	100 mA					
Output leakage current at Umax.	< 50 µA					
Residual voltage at I max and U rated	1 V					
Frequency on inductive load	1,3 V					
Isolation Input / Output	2500 V RMS					
<b>TEMPERATURE</b>						
Ambient temperature storage	-40°C to +80°C					
operating	-20°C to +70°C (1)					
<b>Other characteristics</b>	Screw clamp			Spring clamp		
Body material	grey UL 94 V0			grey UL 94 V0		
Wire size	0,2 - 4 mm² / 24 - 12 AWG			0,2 - 2,5 mm² / 24 - 12 AWG		
size	Stranded wire 0,22 - 2,5 mm² / 24 - 12 AWG			0,22 - 2,5 mm² / 24 - 12 AWG		
Rated wire size	2,5 mm² / 12 AWG			2,5 mm² / 12 AWG		
Wire stripping length	9 mm .354"			9 mm .354"		
Recommended screwdriver	3,5 mm .137"			3,5 mm .137"		
Protection	IP20 NEMA1			IP20 NEMA1		
Recommended torque	0,4 - 0,6 Nm 3,5 - 5,3 lb.in			0,4 - 0,6 Nm 3,5 - 5,3 lb.in		
Approvals	cULus (pending), LRS, CE					
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.					



OB...IC 0100  
24 V DC  
24-48-60 V AC/DC

1

(1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.

Description	Type	Order Code	Price
Optocoupler module 100 mA/DC	OBIC 0100-5-12VDC	1SNA645047R0000	
	OBIC 0100-24VDC	1SNA645021R2600	
	OBIC 0100-48-60VAC/DC	1SNA645049R1200	
	OBIC 0100-115-230VAC/DC	1SNA645022R2700	

Accessories see page 1/80

Full range of product and technical information place this part number in a search engine and download  
2CDC110004C0206

# Relays and optocouplers

## Optocouplers - R600



DIN 3

Optocoupler : 5 to 58 V DC output / 2 A - 6 mm .236" spacing

### Characteristics

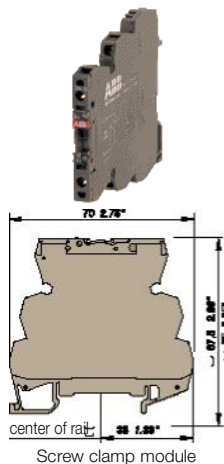
Opto. characteristics	OB...OC 1000		OB...OC 1500	OB...OC 1000				
	5 V DC - 12 V DC		24 V DC	24 V AC/DC 50 / 60 Hz	48 V AC/DC 50 / 60 Hz	60 V AC/DC 50 / 60 Hz	115 V AC/DC 50 / 60 Hz	230 V AC/DC 50 / 60 Hz
Input voltage +20% -15% on DC, +10% -10% on AC	5 V DC - 12 V DC		24 V DC	24 V AC/DC 50 / 60 Hz	48 V AC/DC 50 / 60 Hz	60 V AC/DC 50 / 60 Hz	115 V AC/DC 50 / 60 Hz	230 V AC/DC 50 / 60 Hz
Frequency	5 mA   9 mA		5,4 mA	6,3 mA	4 mA	5,1 mA	4,2 mA	4 mA
Input current	4 V		12 V	15 V	27 V	27 V	50 V	80 V
Pull-in voltage at Is=100%	15 µs / 250 µs		30 µs/400 µs	1 ms/7 ms	5 ms/20 ms	5 ms/20 ms	500 µs/10 ms	1 ms / 15 ms
Switching time C / O	2000 Hz		1000 Hz	60 Hz	20 Hz	20 Hz	50 Hz	35 Hz
Operating frequency	1 mA		0,8 mA	0,9 mA	1 mA	1 mA	0,3 mA	0,3 mA
Permissible leakage current								
<b>OUTPUT</b>								
Output voltage	4,5 to 58 VDC							
Output current min.	1 mA							
Output current max.	2 A							
Output leakage current at Umax.	< 50 µA							
Residual voltage at I max and U rated	typical 0,1 V max. 0,5 V							
Frequency on inductive load	2500 V RMS							
Isolation Input / Output	2500 V RMS							
<b>TEMPERATURE</b>								
Ambient temperature storage	-40°C to +80°C							
operating	-20°C to +70°C (1)							
<b>Other characteristics</b>	Screw clamp			Spring clamp				
Body material	grey			UL 94 V0				
Wire	Solid wire			UL 94 V0				
size	0,2 - 4 mm <sup>2</sup> / 24 - 12 AWG			0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG				
Rated wire size	Stranded wire			0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG				
Wire stripping length	2,5 mm <sup>2</sup> / 12 AWG			2,5 mm <sup>2</sup> / 12 AWG				
Recommended screwdriver	9 mm .354"			9 mm .354"				
Protection	3,5 mm .137"			3,5 mm .137"				
Recommended torque	IP20 NEMA1			IP20 NEMA1				
Approvals	0,4 - 0,6 Nm 3.5 - 5.3 lb.in			0,4 - 0,6 Nm 3.5 - 5.3 lb.in				
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.							

(1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.

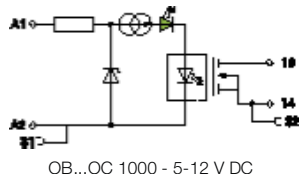
Description	Type	Order Code	Price
Optocoupler module 2 A/DC	OBOC 1000-5-12VDC	1SNA645050R1700	
	OBOC 1000-24VDC	1SNA645051R0400	
	OBOC 1500-24VAC/DC	1SNA645025R2200	
	OBOC 1000-48-60VAC/DC	1SNA645053R0600	
	OBOC 1000-115VAC/DC	1SNA645026R2300	
	OBOC 1000-230VAC/DC	1SNA645026R2300	

Accessories see page 1/80

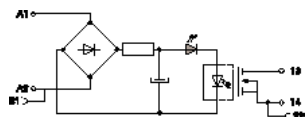
1



Screw clamp module



OB...OC 1000 - 5-12 V DC



OB...OC 1500 - 24 V AC/DC  
OB...OC 1000  
24 V DC  
48-60-115-230 V AC/DC



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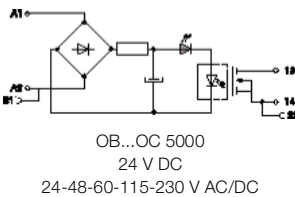
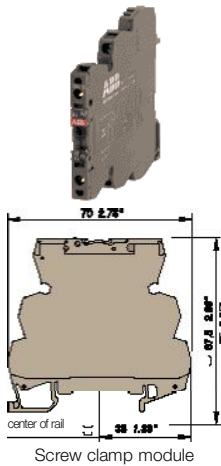
# Relays and optocouplers

## Optocouplers - R600



DIN 3

Optocoupler : 5 to 58 V DC output / 5A - 6 mm .236" spacing



### Characteristics

Opto. characteristics	OB...OC 5000			
<b>INPUT</b>				
Input voltage +20% -15% on DC, +10% -10% on AC	24 V DC		115 V AC/DC	230 V AC/DC
Frequency			50 / 60 Hz	50 / 60 Hz
Input current	5,4 mA		4,2 mA	4 mA
Pull-in voltage at Is=100%	12 V		50 V	80 V
Switching time C / O	30 µs/400 µs		500 µs/10 ms	1 ms / 15 ms
Operating frequency	1000 Hz		50 Hz	35 Hz
Permissible leakage current	0,8 mA		0,3 mA	0,3 mA
<b>OUTPUT</b>				
Output voltage		4,5 to 58 VDC		
Output current min.		1 mA		
Output current max.		5 A		
Output leakage current at Umax.		< 50 µA		
Residual voltage at I max and U rated		typical	0,1 V	
		max.	0,5 V	
Frequency on inductive load				
Isolation Input / Output		2500 V RMS		
<b>TEMPERATURE</b>				
Ambient temperature storage		-40°C to +80°C		
operating		-20°C to +70°C (1)		
<b>Other characteristics</b>		Screw clamp	Spring clamp	
Body material		grey	grey	
Wire		UL 94 V0	UL 94 V0	
Wire size		0,2 - 4 mm <sup>2</sup> / 24 - 12 AWG	0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG	
size		Stranded wire	0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG	
Rated wire size		2,5 mm <sup>2</sup> / 12 AWG	2,5 mm <sup>2</sup> / 12 AWG	
Wire stripping length		9 mm .354"	9 mm .354"	
Recommended screwdriver		3,5 mm .137"	3,5 mm .137"	
Protection		IP20 NEMA1	IP20 NEMA1	
Recommended torque		0,4 - 0,6 Nm 3.5 - 5.3 lb.in	0,4 - 0,6 Nm 3.5 - 5.3 lb.in	
Approvals				
Reference standards		CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.		

(1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.

Description	Type	Order Code	Price
Optocoupler module 5 A/DC	OBOC 5000-24VDC	1SNA645024R2100	
	OBOC 5000-115VAC/DC	1SNA645058R1300	
	OBOC 5000-230VAC/DC	1SNA645059R1400	

Accessories see page 1/80



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# Relays and optocouplers

## Optocouplers - R600



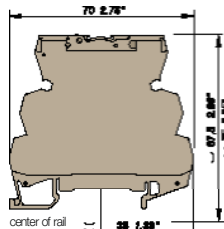
DIN 3

Optocoupler : 24 to 400 V AC output / 2 A max. - 6 or 12 mm spacing

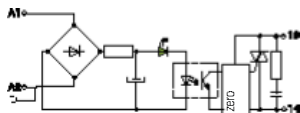
### Characteristics

Opto. characteristics	OB...OA 1000						OB...OA 2000
	24 V DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC	24 V DC	
<b>INPUT</b>							
Input voltage +20% -15% on DC, +10% -10% on AC	24 V DC	48 V AC/DC	60 V AC/DC	115 V AC/DC	230 V AC/DC	24 V DC	
Frequency		50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz		
Input current	3,6 mA	4,3 mA	5,5 mA	4,15 mA	4,6 mA	3,6 mA	
Pull-in voltage at Is=100%	14 V	15 V	18 V	60 V	135 V	14 V	
Switching time C / O	150 μs/1ms	3 ms / 30 ms		2,2 ms/18 ms	2,5 ms/25 ms	150 μs/1 ms	
Operating frequency	500 Hz	20 Hz		25 Hz	20 Hz	500 Hz	
Permissible leakage current	1 mA	1 mA		1 mA	1 mA	1 mA	
<b>OUTPUT</b>	24 to 400 V AC						
Output voltage	24 to 400 V AC						
Frequency	50 / 60 Hz						
Output current min.	25 mA						
Output current max.	1 A					2 A	
Output leakage current at Umax.	< 0,5 mA						
Residual voltage at I max and U rated	1 V						
	typical						
	max.						
	1,6 V						
Frequency on inductive load							
Isolation Input / Output	2500 V RMS						
<b>TEMPERATURE</b>							
Ambient temperature storage	- 40°C to + 80°C						
operating	-20°C to +70°C (1)						
<b>Other characteristics</b>	Screw clamp			Spring clamp			
Body material	grey			UL 94 V0			
Wire	Solid wire			UL 94 V0			
size	0,2 - 4 mm <sup>2</sup> / 24 - 12 AWG			0,2 - 2,5 mm <sup>2</sup> / 24 - 12 AWG			
Stranded wire	0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG			0,22 - 2,5 mm <sup>2</sup> / 24 - 12 AWG			
Rated wire size	2,5 mm <sup>2</sup> / 12 AWG			2,5 mm <sup>2</sup> / 12 AWG			
Wire stripping length	9 mm .354"			9 mm .354"			
Recommended screwdriver	3,5 mm .137"			3,5 mm .137"			
Protection	IP20 NEMA1			IP20 NEMA1			
Recommended torque	0,4 - 0,6 Nm 3.5 - 5.3 lb.in			0,4 - 0,6 Nm 3.5 - 5.3 lb.in			
Approvals	c   (pending), ,						
Reference standards	CEI 947-7-1 / CEI 947-1 / CEI 1131-2 (in relevant parts) / CEI 60664-1 / CEM : IRC 1000-4-2, 3, 4, 5, 6.						

(1) Over 55°C, blocks have to be mounted on horizontal rail with 10 mm spacing between each block. For vertical rail mounting use temperature is 15°C less decreased.



Screw clamp module



OB...OA 1000  
24 V DC  
48-60-115-230 V AC/DC  
OB...OA 2000 - 24 V DC

Description	Type	Order Code	Price
Optocoupler module 1 A/AC 6 mm spac.	OBOA 1000-24VDC	1SNA645027R2400	
	OBOA 1000-48-60VAC/DC	1SNA645061R0600	
	OBOA 1000-115VAC/DC	1SNA645062R0700	
	OBOA 1000-230VAC/DC	1SNA645028R0500	
Optocoupler module 2A/AC 12 mm spac.	OBOA 2000-24VDC	1SNA645029R0600	

Accessories see page 1/80



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# Logic relays

## CL Range

## Stand Alone

## Expandable

## Expansions

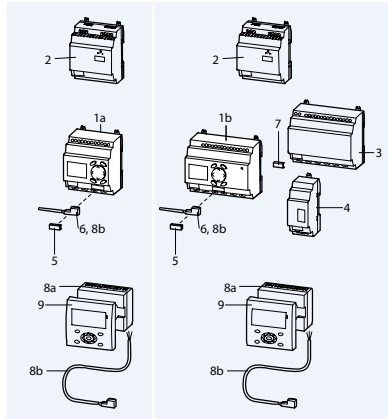
	Stand Alone								Expandable								Expansions				
	Type	Order Code	Price					Type	Order Code	Price					Type	Order Code	Price				
Digital inputs	CL-LSR.C12AC1	1SVR440712R0300							CL-LMR.C18AC1	1SVR440722R0300							CL-LER.20	1SVR440709R5000			
Usable as Analogue inputs	CL-LSR.CX12AC1	1SVR440712R0200							CL-LMR.CX18AC1	1SVR440722R0200							CL-LER.18AC2	1SVR440723R0000			
Relay outputs	CL-LSR.12AC2	1SVR440713R0100							CL-LMR.C18AC2	1SVR440723R0300							CL-LER.18DC2	1SVR440721R0000			
Transistor outputs	CL-LSR.C12AC2	1SVR440713R0300							CL-LMR.CX18AC2	1SVR440723R0200							CL-LER.18DC2	1SVR440721R1000			
Display and keypad	CL-LSR.CX12DC1	1SVR440710R0300							CL-LMR.C18DC1	1SVR440720R0300							CL-LER.20DC2	1SVR440721R1000			
Realtime clock	CL-LSR.CX12DC1	1SVR440710R0200							CL-LMR.CX18DC1	1SVR440720R0200							CL-LER.20DC2	1SVR440721R1300			
Expandable	CL-LSR.12DC2	1SVR440711R0100							CL-LMR.C18DC2	1SVR440721R0300							CL-LER.20DC2	1SVR440721R1200			
	CL-LSR.C12DC2	1SVR440711R0300							CL-LMR.CX18DC2	1SVR440721R0200							CL-LER.20DC2	1SVR440721R1300			
	CL-LSR.C12DC2	1SVR440711R0200							CL-LMR.CX18DC2	1SVR440721R1300							CL-LER.20DC2	1SVR440721R1200			
	CL-LST.C12DC2	1SVR440711R1300							CL-LMT.C20DC2	1SVR440721R1300							CL-LER.20DC2	1SVR440721R1300			
	CL-LST.CX12DC2	1SVR440711R1200							CL-LMT.CX20DC2	1SVR440721R1200							CL-LER.20DC2	1SVR440721R1200			

### Rated supply voltage U<sub>e</sub>

12 V DC																				
24 V DC																				
24 V AC																				
110 - 240 V AC																				

### Stand alone

### Expandable



- 1a Logic relay CL-LS..
- 1b Expandable logic relay CL-LM..
- 2 Power supply CP-D...
- 3 I/O expansion CL-LER..., CL-LET.. for logic relays CL-LM..
- 4 Coupler unit CL-LEC.. for remote expansion of logic relays CL-LM..
- 5 Memory module CL-LAS.MD003 for logic relays CL-LS., CL-LM..
- 6 Connecting cable CL-LAS.TK001, CL-LAS.TK002 to connect PC
- 7 CL-LINK plug CL-LAS.TK011 to connect expansion to logic relays CL-LM..
- 8a Remote display connection module CL-LDC.S..
- 8b Connecting cable CL-LAD.TK007 to connect a remote displays to a logic relay
- 9 Display module CL-LDD..

## Display Systems

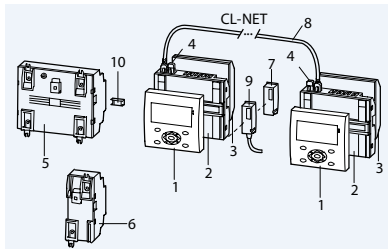
Type	Order Code
CL-LDR.16AC2	1SVR440853R0000
CL-LDR.16DC2	1SVR440851R0000
CL-LDR.17DC2	1SVR440851R2000
CL-LDT.16DC2	1SVR440851R1000
CL-LDT.17DC2	1SVR440851R3000

Digital inputs	12	12	12	12	12
Analogue inputs		4	4	4	4
Analog outputs			1		1
Relay outputs	4	4	4		
Transistor outputs				4	4

### Rated supply voltage U<sub>e</sub>

24 V DC					
110 - 240 V AC					

### Display system → Compact HMI logic relay



- 1 Display module CL-LDD..
  - 2 Display base module CL-LDC.LN..
  - 3 Display I/O module CL-LDR..., CL-LDT..
  - 4 Termination resistor CL-LAD.TK009
  - 5 I/O expansion CL-LER..., CL-LET..
  - 6 Coupler unit CL-LEC.. for remote expansion
  - 7 Memory module CL-LAD.MD004 for display base module
  - 8 Connecting cable CL-LAD.TK002, CL-LAD.TK003, CL-LAD.TK004
  - 9 Connecting cable CL-LAD.TK001, CL-LAD.TK011 to connect PC
  - 10 CL-LINK plug CL-LAS.TK011 for expansion of logic relays CL-LM..
- e.g. door of switchgear cabinet



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# Accessories

## CL range

Type	For logic relay	For display system	Description	Order Code	Price
<b>Display modules</b>					
CL-LDD.XK	■	■	Graphic display, 132 x 64 pixels	1SVR440839R4500	
CL-LDD.K	■	■	Graphic display, 132 x 64 pixels, with keypad	1SVR440839R4400	
<b>Remote display connection modules</b>					
CL-LDC.SDC2	■	■	Module to displace display from the logic relay, 5 m, length adjustable, 24 V DC	1SVR440841R0000	
CL-LDC.SAC2	■	■	Module to displace display from the logic relay, 5 m, length adjustable, 100-240 V AC	1SVR440843R0000	
<b>Display base modules</b>					
CL-LDC.LDC2	-	■	CPU / power supply, 24 V DC	1SVR440821R0000	
CL-LDC.LAC2	-	■	CPU / power supply, 100-240 V AC	1SVR440823R0000	
CL-LDC.LNDC2	-	■	CPU / power supply, networking-compatible (CL-NET), 24 V DC	1SVR440821R1000	
CL-LDC.LNAC2	-	■	CPU / power supply, networking-compatible (CL-NET), 100-240 V AC	1SVR440823R1000	
<b>Accessories for logic relays and display system</b>					
CL-LAS.PS002	■	■	Software for programming and control of CL range devices	1SVR440799R8000	
CL-LAS.MD003	■	-	Memory module for logic relays (32 kB)	1SVR440799R7000	
CL-LAD.MD004	-	■	Memory module for display base modules (256 kB)	1SVR440899R7000	
CL-LAS.TK001	■	-	Cable with serial interface to connect PC and logic relay (length 2m)	1SVR440799R6000	
CL-LAD.TK001	-	■	Cable with serial interface to connect PC and display base module (length 2 m)	1SVR440899R6000	
CL-LAS.TK002	■	-	Cable with USB interface to connect PC and logic relay	1SVR440799R6100	
CL-LAD.TK011	-	■	Cable with USB interface to connect PC and display base module	1SVR440899R6700	
CL-LAD.TK002	-	■	Network cable (CL-NET) to connect 2 display base modules (length 0.3 m)	1SVR440899R6100	
CL-LAD.TK003	-	■	Network cable (CL-NET) to connect 2 display base modules (length 0.8 m)	1SVR440899R6200	
CL-LAD.TK004	-	■	Network cable (CL-NET) to connect 2 display base modules (length 1.5 m)	1SVR440899R6300	
CL-LAD.TK007	■	-	Cable for point-to-point connection of remote-display connection module and logic relay, length adaptable (length 2 m)	1SVR440899R6600	
CL-LAD.TK005	-	■	Cable for point-to-point connection of remote display connection modules and display base module, length adaptable (length 5 m)	1SVR440899R6400	
CL-LAD.TK006	-	■	Cable for point-to-point connection of 2 display base modules, length adaptable (length 5 m)	1SVR440899R6500	
CL-LAS.TK011	■	■	Spare plug (CL-LINK) for connection of logic relay to expansion	1SVR440799R5100	
CL-LAD.TK009	-	■	Termination resistor (2 pieces)	1SVR440899R6900	
CL-LAS.FD001	■		Fixing brackets for screw mounting of logic relay, expansion, display base module (9 pieces)	1SVR440799R5000	
CL-LAD.FD002	-	■	Tool for mounting of display modules	1SVR440899R3000	
CL-LAS.TD001	■	-	Input-/ output simulator with wall power supply, fits to CL-LSR and CL-LST. Rated input voltage 100-240 V AC, rated output voltage 24 V DC	1SVR440793R0000	
CL-LAD.FD001	-	■	Protective cover, transparent, for harsh environmental conditions and application in the food industry	1SVR440899R1000	
CL-LAD.FD011	-	■	Protective cover, transparent, and sealable	1SVR440899R2000	
<b>Power supplies</b>					
CL-D 24/0.42	■	-	24 V DC / 0.42 A; Input 100 - 240 V AC	1SVR427041R0000	
CL-D 24/1.3	■	-	24 V DC / 1.3 A; Input 100 - 240 V AC		



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# Installation equipment



## Miniature circuit breakers

S200 series MCBs .....	2/4
S280 series MCBs .....	2/26
S800 series MCBs .....	2/27

## Earth leakage protection

F200 series RCCBs .....	2/47
DDA200 series RCB blocks .....	2/49
DS201 series RCBOs .....	2/51
DS800 series RCBOs .....	2/54
DS271 series RCBOs .....	2/55
Accessories .....	2/57

## Digital meters

ODIN and DELTA meters .....	2/60
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## Modular devices

Modular devices .....	2/61
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Installation equipment



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2CSC400002D0208

# New Product

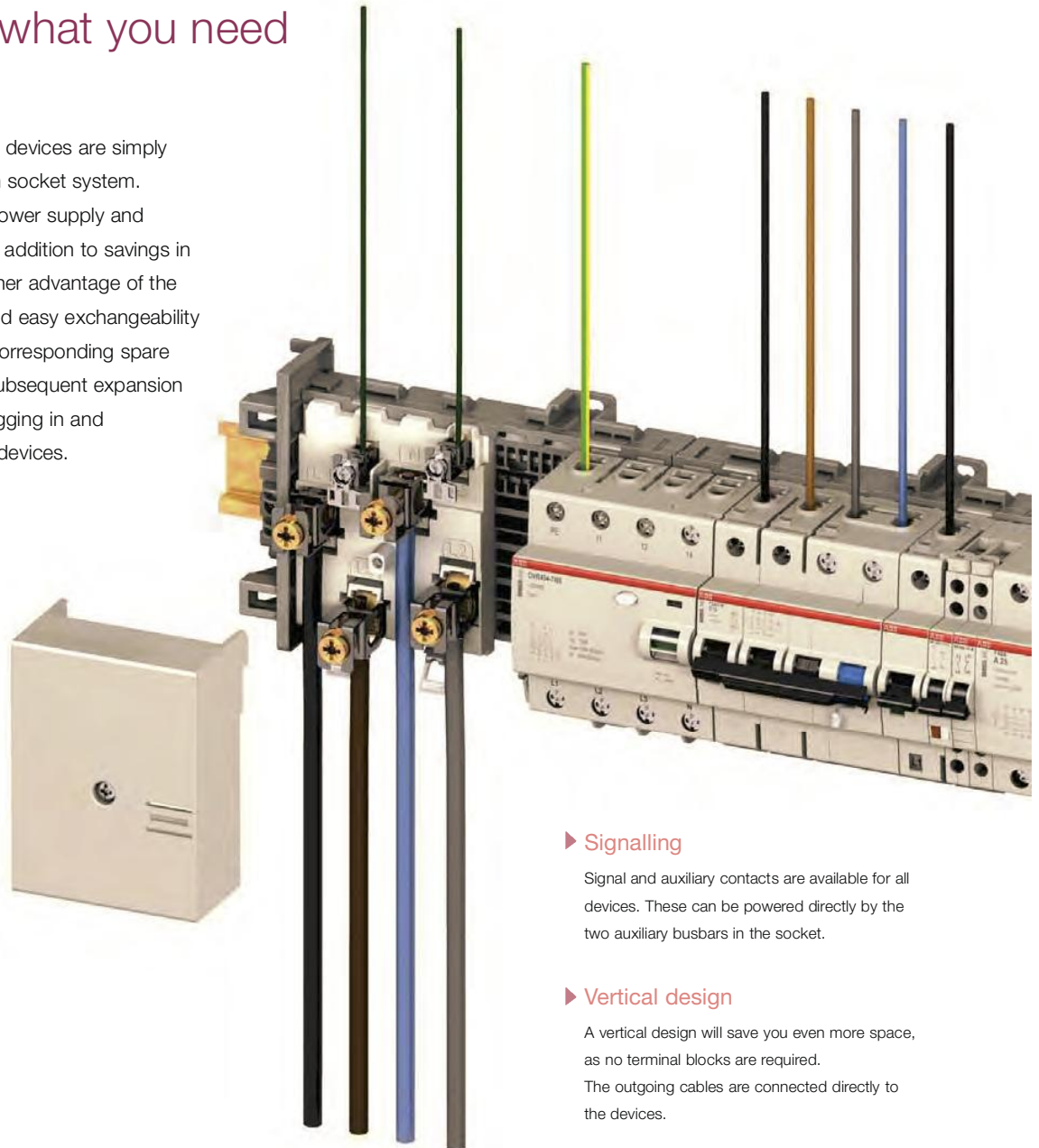
## Smisline TP - coming soon

### Plan exactly what you need

#### ► The idea

SMISLINE protection devices are simply snapped into a plug-in socket system. The arduous task of power supply and connection is done. In addition to savings in time and money, another advantage of the system is the quick and easy exchangeability of the devices. If the corresponding spare capacity is planned, subsequent expansion consists merely of plugging in and connecting additional devices.

2



#### ► Signalling

Signal and auxiliary contacts are available for all devices. These can be powered directly by the two auxiliary busbars in the socket.

#### ► Vertical design

A vertical design will save you even more space, as no terminal blocks are required.

The outgoing cables are connected directly to the devices.

#### ► Collective alarm

A collective alarm can easily be implemented using the signal contact SK400 SA. A very good space-saving arrangement is created when the signal contact is mounted to the left or right of the miniature circuit breaker.

► Flexibility up to the last minute

SMISLINE makes it possible to press ahead with planning, even before all the details of a system are known. Loads can be easily reassigned. Even if the usage of an entire installation is completely changed, the effort involved remains small.

► Motor starter units or external devices

You can create varied combinations of devices using a combi module. For example, a motor protection switch, together with a contactor can be combined to form one single unit and plugged in as a whole. External devices can be integrated into the system via universal adapters.

► Freedom to design and arrange

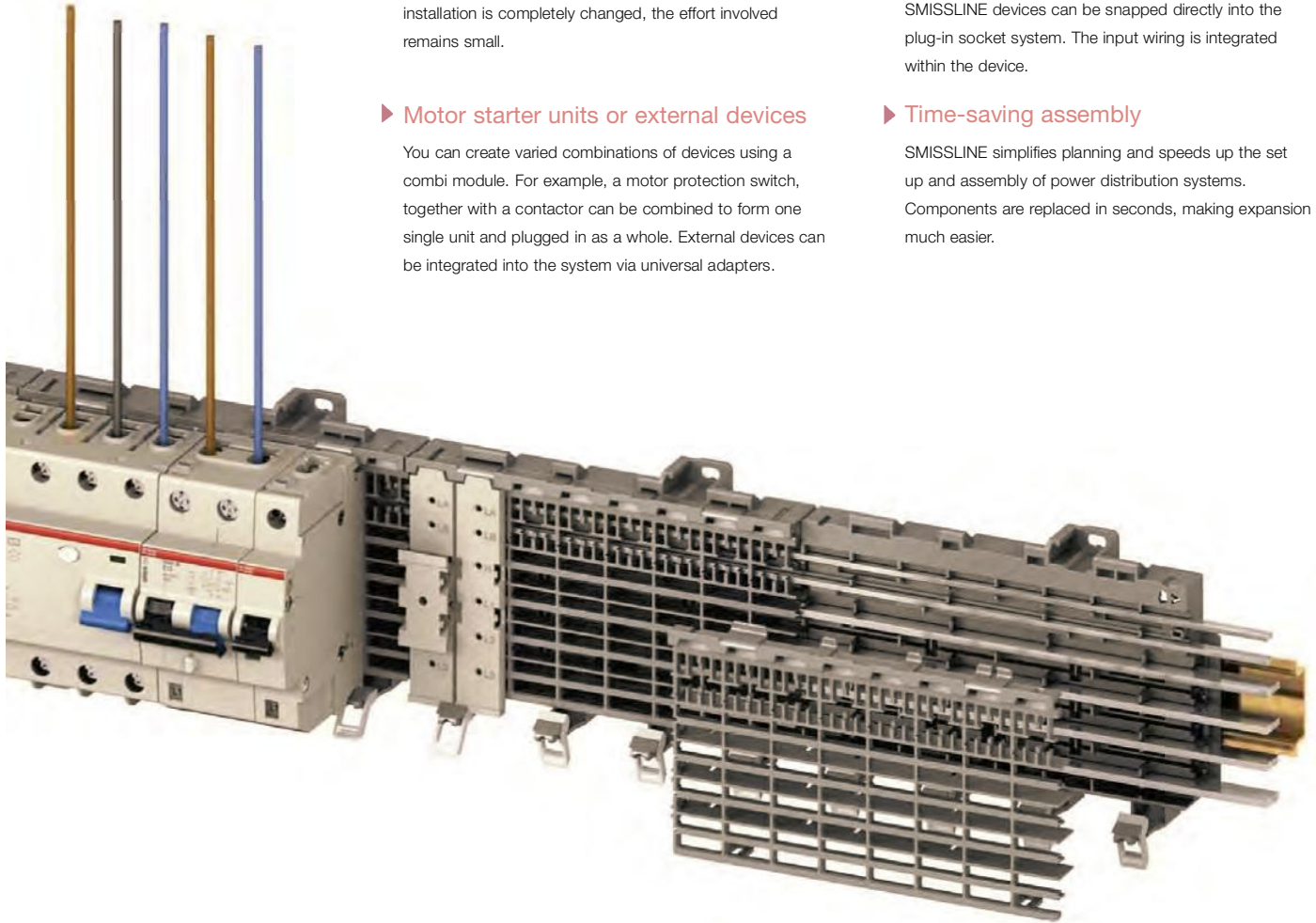
SMISLINE gives you freedom of choice: Mixed-pole arrangement of all devices next to each other. Plugs in directly

SMISLINE devices can be snapped directly into the plug-in socket system. The input wiring is integrated within the device.

► Time-saving assembly

SMISLINE simplifies planning and speeds up the set up and assembly of power distribution systems.

Components are replaced in seconds, making expansion much easier.



► The new pluggable touch proof busbar system, bringing power and safety together.

for further details please contact us at  
lv.enquiries@gb.abb.com  
quoting Smissline TP in the subject field



# Installation equipment

## Tripping characteristics

### Tripping characteristics

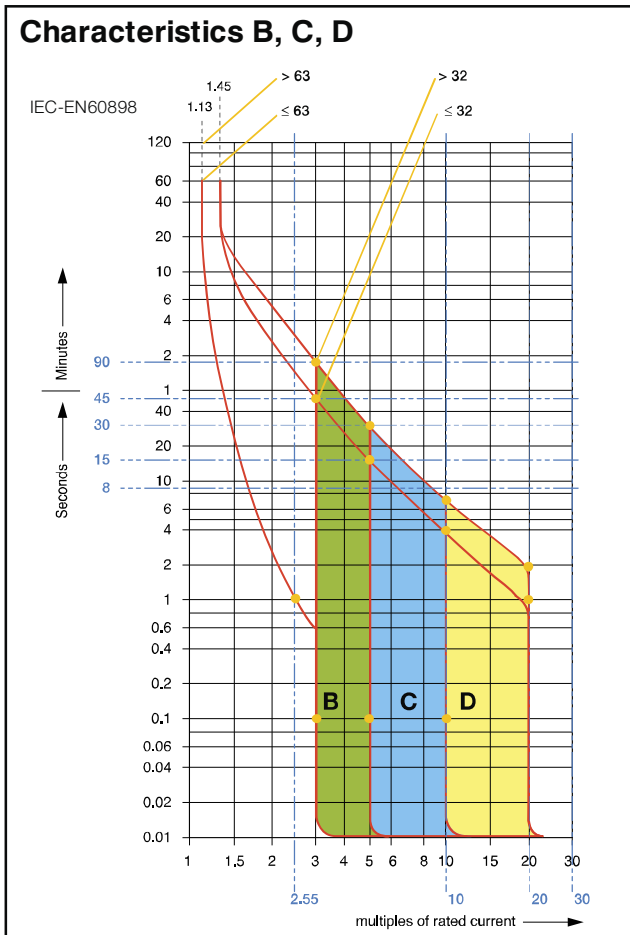
Acc. to	Tripping characteristic and rated current	Thermal release <sup>2)</sup>		Tripping time	Electromagnetic release <sup>1)</sup>		Tripping time
		Current: conventional non-tripping c.	conventional tripping c.		Currents: hold current surges	trip at least at	
IEC/EN 60898	<b>B</b> 6 to 63 A	$1.13 \cdot I_n$	$1.45 \cdot I_n$	> 1 h < 1 h	$3 \cdot I_n$	$5 \cdot I_n$	> 0.1 s < 0.1 s
	<b>C</b> 0.5 to 63 A	$1.13 \cdot I_n$	$1.45 \cdot I_n$	> 1 h < 1 h	$5 \cdot I_n$	$10 \cdot I_n$	> 0.1 s < 0.1 s
	<b>D</b> 0.5 to 63 A	$1.13 \cdot I_n$	$1.45 \cdot I_n$	> 1 h < 1 h	$10 \cdot I_n$	$20 \cdot I_n$	> 0.1 s < 0.1 s
DIN VDE 0660/9.82	<b>K</b> 0.5 to 63 A	$1.05 \cdot I_n$	$1.2 \cdot I_n$	> 1 h < 1 h	not applicable		
IEC/EN 60947-2 DIN VDE 0660 8/69 Part 101		$1.05 \cdot I_n$	$1.2 \cdot I_n$ $1.5 \cdot I_n$ $6.0 \cdot I_n$	> 2 h < 1 h <sup>3)</sup> < 2 min. <sup>3)</sup> > 2 s (T1)	$10 \cdot I_n$	$14 \cdot I_n$	> 0.2 s < 0.2 s
DIN VDE 0660/9.82	<b>Z</b> 0.5 to 63 A	$1.05 \cdot I_n$	$1.2 \cdot I_n$	> 1 h < 1 h	not applicable		
IEC/EN 60947-2 DIN VDE 0660 8/69 Part 101		$1.05 \cdot I_n$	$1.2 \cdot I_n$ $1.5 \cdot I_n$ $6.0 \cdot I_n$	> 2 h < 1 h <sup>3)</sup> < 2 min. <sup>3)</sup> > 2 s (T1)	$2 \cdot I_n$	$3 \cdot I_n$	> 0.2 s < 0.2 s

1) The indicated tripping values of electromagnetic tripping devices apply to a frequency range of 16 2/3...60 Hz. In the case of diverging frequencies or direct current, see paragraph "Variation of tripping threshold of MCBs, according to network frequency" (page 6/7)

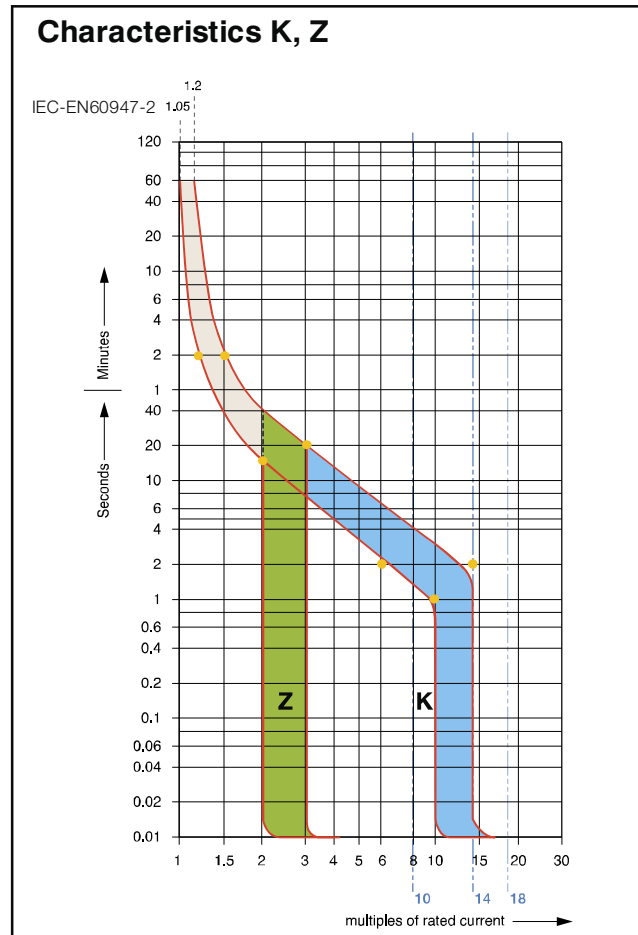
2) The thermal releases are calibrated to a nominal reference ambient temperature; for Z and K, the value is 20 °C, for B and C = 30 °C. In the case of higher ambient temperatures, the current values fall by ca. 6 % for each 10 K temperature rise.

3) As from operating temperature (after  $I_1 > 1$  h or, as applicable, 2 h).

#### Characteristics B, C, D



#### Characteristics K, Z



# System ProM compact

## S200-B series 6kA



2CSC400411F0201



2CSC400413F0201



2CSC400415F0201



2CSC400443F0201



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2CSC400002D0208

### Type B 6kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
6	S201-B6	2CDS251001R0065	
10	S201-B10	2CDS251001R0105	
16	S201-B16	2CDS251001R0165	
20	S201-B20	2CDS251001R0205	
25	S201-B25	2CDS251001R0255	
32	S201-B32	2CDS251001R0325	
40	S201-B40	2CDS251001R0405	
50	S201-B50	2CDS251001R0505	
63	S201-B63	2CDS251001R0635	

Rated Current (A)	Double Pole	Order Code	Price
6	S202-B6	2CDS252001R0065	
10	S202-B10	2CDS252001R0105	
16	S202-B16	2CDS252001R0165	
20	S202-B20	2CDS252001R0205	
25	S202-B25	2CDS252001R0255	
32	S202-B32	2CDS252001R0325	
40	S202-B40	2CDS252001R0405	
50	S202-B50	2CDS252001R0505	
63	S202-B63	2CDS252001R0635	

Rated Current (A)	Triple Pole	Order Code	Price
6	S203-B6	2CDS253001R0065	
10	S203-B10	2CDS253001R0105	
16	S203-B16	2CDS253001R0165	
20	S203-B20	2CDS253001R0205	
25	S203-B25	2CDS253001R0255	
32	S203-B32	2CDS253001R0325	
40	S203-B40	2CDS253001R0405	
50	S203-B50	2CDS253001R0505	
63	S203-B63	2CDS253001R0635	

Rated Current (A)	Four Pole	Order Code	Price
6	S204-B6	2CDS254001R0065	
10	S204-B10	2CDS254001R0105	
16	S204-B16	2CDS254001R0165	
20	S204-B20	2CDS254001R0205	
25	S204-B25	2CDS254001R0255	
32	S204-B32	2CDS254001R0325	
40	S204-B40	2CDS254001R0405	
50	S204-B50	2CDS254001R0505	
63	S204-B63	2CDS254001R0635	



# System ProM compact

## S200-C series 6kA

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2CSC400411F0201



2CSC400413F0201



2CSC400415F0201



### Type C 6kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S201-C1	2CDS251001R0014	
2	S201-C2	2CDS251001R0024	
3	S201-C3	2CDS251001R0034	
4	S201-C4	2CDS251001R0044	
6	S201-C6	2CDS251001R0064	
8	S201-C8	2CDS251001R0084	
10	S201-C10	2CDS251001R0104	
13	S201-C13	2CDS251001R0134	
16	S201-C16	2CDS251001R0164	
20	S201-C20	2CDS251001R0204	
25	S201-C25	2CDS251001R0254	
32	S201-C32	2CDS251001R0324	
40	S201-C40	2CDS251001R0404	
50	S201-C50	2CDS251001R0504	
63	S201-C63	2CDS251001R0634	

Rated Current (A)	Double Pole	Order Code	Price
1	S202-C1	2CDS252001R0014	
2	S202-C2	2CDS252001R0024	
3	S202-C3	2CDS252001R0034	
4	S202-C4	2CDS252001R0044	
6	S202-C6	2CDS252001R0064	
8	S202-C8	2CDS252001R0084	
10	S202-C10	2CDS252001R0104	
13	S202-C13	2CDS252001R0134	
16	S202-C16	2CDS252001R0164	
20	S202-C20	2CDS252001R0204	
25	S202-C25	2CDS252001R0254	
32	S202-C32	2CDS252001R0324	
40	S202-C40	2CDS252001R0404	
50	S202-C50	2CDS252001R0504	
63	S202-C63	2CDS252001R0634	

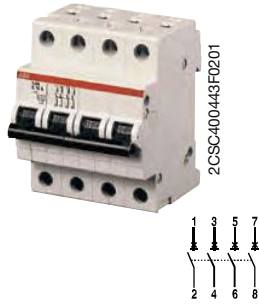
Rated Current (A)	Triple Pole	Order Code	Price
1	S203-C1	2CDS253001R0014	
2	S203-C2	2CDS253001R0024	
3	S203-C3	2CDS253001R0034	
4	S203-C4	2CDS253001R0044	
6	S203-C6	2CDS253001R0064	
8	S203-C8	2CDS253001R0084	
10	S203-C10	2CDS253001R0104	
13	S203-C13	2CDS253001R0134	
16	S203-C16	2CDS253001R0164	
20	S203-C20	2CDS253001R0204	
25	S203-C25	2CDS253001R0254	
32	S203-C32	2CDS253001R0324	
40	S203-C40	2CDS253001R0404	
50	S203-C50	2CDS253001R0504	
63	S203-C63	2CDS253001R0634	



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# System ProM compact S200 C series 6kA



Type C 6kA		Product Hierarchy 2400004	
Rated Current (A)	Four Pole	Order Code	Price
1	S204-C1	2CDS251004R0014	
2	S204-C2	2CDS251004R0024	
3	S204-C3	2CDS251004R0034	
4	S204-C4	2CDS251004R0044	
6	S204-C6	2CDS251004R0064	
8	S204-C8	2CDS251004R0084	
10	S204-C10	2CDS251004R0104	
13	S204-C13	2CDS251004R0134	
16	S204-C16	2CDS251004R0164	
20	S204-C20	2CDS251004R0204	
25	S204-C25	2CDS251004R0254	
32	S204-C32	2CDS251004R0324	
40	S204-C40	2CDS251004R0404	
50	S204-C50	2CDS251004R0504	
63	S204-C63	2CDS251004R0634	

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# System ProM compact S200-D series 6kA

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## Type D 6kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S201-D1	2CDS251001R0011	
2	S201-D2	2CDS251001R0021	
3	S201-D3	2CDS251001R0031	
4	S201-D4	2CDS251001R0041	
6	S201-D6	2CDS251001R0061	
8	S201-D8	2CDS251001R0081	
10	S201-D10	2CDS251001R0101	
13	S201-D13	2CDS251001R0131	
16	S201-D16	2CDS251001R0161	
20	S201-D20	2CDS251001R0201	
25	S201-D25	2CDS251001R0251	
32	S201-D32	2CDS251001R0321	
40	S201-D40	2CDS251001R0401	
50	S201-D50	2CDS251001R0501	
63	S201-D63	2CDS251001R0631	

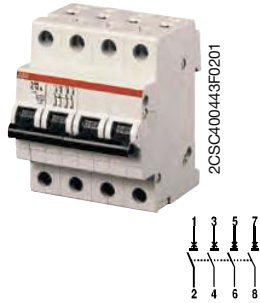
Rated Current (A)	Double Pole	Order Code	Price
1	S202-D1	2CDS252001R0011	
2	S202-D2	2CDS252001R0021	
3	S202-D3	2CDS252001R0031	
4	S202-D4	2CDS252001R0041	
6	S202-D6	2CDS252001R0061	
8	S202-D8	2CDS252001R0081	
10	S202-D10	2CDS252001R0101	
13	S202-D13	2CDS252001R0131	
16	S202-D16	2CDS252001R0161	
20	S202-D20	2CDS252001R0201	
25	S202-D25	2CDS252001R0251	
32	S202-D32	2CDS252001R0321	
40	S202-D40	2CDS252001R0401	
50	S202-D50	2CDS252001R0501	
63	S202-D63	2CDS252001R0631	

Rated Current (A)	Triple Pole	Order Code	Price
1	S203-D1	2CDS253001R0011	
2	S203-D2	2CDS253001R0021	
3	S203-D3	2CDS253001R0031	
4	S203-D4	2CDS253001R0041	
6	S203-D6	2CDS253001R0061	
8	S203-D8	2CDS253001R0081	
10	S203-D10	2CDS253001R0101	
13	S203-D13	2CDS253001R0131	
16	S203-D16	2CDS253001R0161	
20	S203-D20	2CDS253001R0201	
25	S203-D25	2CDS253001R0251	
32	S203-D32	2CDS253001R0321	
40	S203-D40	2CDS253001R0401	
50	S203-D50	2CDS253001R0501	
63	S203-D63	2CDS253001R0631	



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# System ProM compact S200-D series 6kA



Type D 6kA		Product Hierarchy 2400004	
Rated Current (A)	Four Pole	Order Code	Price
1	S204-D1	2CDS254001R0011	
2	S204-D2	2CDS254001R0021	
3	S204-D3	2CDS254001R0031	
4	S204-D4	2CDS254001R0041	
6	S204-D6	2CDS254001R0061	
8	S204-D8	2CDS254001R0081	
10	S204-D10	2CDS254001R0101	
13	S204-D13	2CDS254001R0131	
16	S204-D16	2CDS254001R0161	
20	S204-D20	2CDS254001R0201	
25	S204-D25	2CDS254001R0251	
32	S204-D32	2CDS254001R0321	
40	S204-D40	2CDS254001R0401	
50	S204-D50	2CDS254001R0501	
63	S204-D63	2CDS254001R0631	

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# System ProM compact S200-K series 6kA

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2CSC400411F0201



2CSC400413F0201



2CSC400415F0201



## Type K 6kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S201-K1	2CDS251001R0217	
2	S201-K2	2CDS251001R0277	
3	S201-K3	2CDS251001R0317	
4	S201-K4	2CDS251001R0337	
6	S201-K6	2CDS251001R0377	
8	S201-K8	2CDS251001R0407	
10	S201-K10	2CDS251001R0427	
13	S201-K13	2CDS251001R0447	
16	S201-K16	2CDS251001R0467	
20	S201-K20	2CDS251001R0487	
25	S201-K25	2CDS251001R0517	
32	S201-K32	2CDS251001R0537	
40	S201-K40	2CDS251001R0557	
50	S201-K50	2CDS251001R0577	
63	S201-K63	2CDS251001R0607	

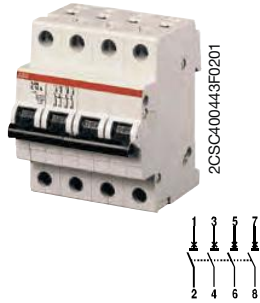
Rated Current (A)	Double Pole	Order Code	Price
1	S202-K1	2CDS252001R0217	
2	S202-K2	2CDS252001R0277	
3	S202-K3	2CDS252001R0317	
4	S202-K4	2CDS252001R0337	
6	S202-K6	2CDS252001R0377	
8	S202-K8	2CDS252001R0407	
10	S202-K10	2CDS252001R0427	
13	S202-K13	2CDS252001R0447	
16	S202-K16	2CDS252001R0467	
20	S202-K20	2CDS252001R0487	
25	S202-K25	2CDS252001R0517	
32	S202-K32	2CDS252001R0537	
40	S202-K40	2CDS252001R0557	
50	S202-K50	2CDS252001R0577	
63	S202-K63	2CDS252001R0607	

Rated Current (A)	Triple Pole	Order Code	Price
1	S203-K1	2CDS253001R0217	
2	S203-K2	2CDS253001R0277	
3	S203-K3	2CDS253001R0317	
4	S203-K4	2CDS253001R0337	
6	S203-K6	2CDS253001R0377	
8	S203-K8	2CDS253001R0407	
10	S203-K10	2CDS253001R0427	
13	S203-K13	2CDS253001R0447	
16	S203-K16	2CDS253001R0467	
20	S203-K20	2CDS253001R0487	
25	S203-K25	2CDS253001R0517	
32	S203-K32	2CDS253001R0537	
40	S203-K40	2CDS253001R0557	
50	S203-K50	2CDS253001R0577	
63	S203-K63	2CDS253001R0607	



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# System ProM compact S200-K series 6kA



Type K 6kA		Product Hierarchy 2400004	
Rated Current (A)	Four Pole	Order Code	Price
1	S204-K1	2CDS254001R0217	
2	S204-K2	2CDS254001R0277	
3	S204-K3	2CDS254001R0317	
4	S204-K4	2CDS254001R0337	
6	S204-K6	2CDS254001R0377	
8	S204-K8	2CDS254001R0407	
10	S204-K10	2CDS254001R0427	
13	S204-K13	2CDS254001R0447	
16	S204-K16	2CDS254001R0467	
20	S204-K20	2CDS254001R0487	
25	S204-K25	2CDS254001R0517	
32	S204-K32	2CDS254001R0537	
40	S204-K40	2CDS254001R0557	
50	S204-K50	2CDS254001R0577	
63	S204-K63	2CDS254001R0607	

2



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# System ProM compact

## S200-Z series 6kA

2



### Type Z 6kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S201-Z1	2CDS251001R0218	
2	S201-Z2	2CDS251001R0278	
3	S201-Z3	2CDS251001R0318	
4	S201-Z4	2CDS251001R0338	
6	S201-Z6	2CDS251001R0378	
8	S201-Z8	2CDS251001R0408	
10	S201-Z10	2CDS251001R0428	
13	S201-Z13	2CDS251001R0448	
16	S201-Z16	2CDS251001R0468	
20	S201-Z20	2CDS251001R0488	
25	S201-Z25	2CDS251001R0518	
32	S201-Z32	2CDS251001R0538	
40	S201-Z40	2CDS251001R0558	
50	S201-Z50	2CDS251001R0578	
63	S201-Z63	2CDS251001R0608	

Rated Current (A)	Double Pole	Order Code	Price
1	S202-Z1	2CDS252001R0218	
2	S202-Z2	2CDS252001R0278	
3	S202-Z3	2CDS252001R0318	
4	S202-Z4	2CDS252001R0338	
6	S202-Z6	2CDS252001R0378	
8	S202-Z8	2CDS252001R0408	
10	S202-Z10	2CDS252001R0428	
13	S202-Z13	2CDS252001R0448	
16	S202-Z16	2CDS252001R0468	
20	S202-Z20	2CDS252001R0488	
25	S202-Z25	2CDS252001R0518	
32	S202-Z32	2CDS252001R0538	
40	S202-Z40	2CDS252001R0558	
50	S202-Z50	2CDS252001R0578	
63	S202-Z63	2CDS252001R0608	

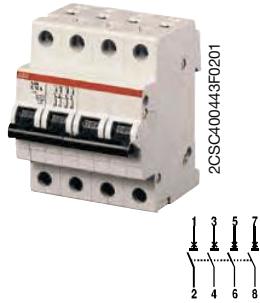
Rated Current (A)	Triple Pole	Order Code	Price
1	S203-Z1	2CDS253001R0218	
2	S203-Z2	2CDS253001R0278	
3	S203-Z3	2CDS253001R0318	
4	S203-Z4	2CDS253001R0338	
6	S203-Z6	2CDS253001R0378	
8	S203-Z8	2CDS253001R0408	
10	S203-Z10	2CDS253001R0428	
13	S202K13	2CDS253001R0448	
16	S203-Z16	2CDS253001R0468	
20	S203-Z20	2CDS253001R0488	
25	S203-Z25	2CDS253001R0518	
32	S203-Z32	2CDS253001R0538	
40	S203-Z40	2CDS253001R0558	
50	S203-Z50	2CDS253001R0578	
63	S203-Z63	2CDS253001R0608	



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# System ProM compact S200-Z series 6kA



## Type Z 6kA

Rated Current (A)	Four Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S204-Z1	2CDS254001R0218	
2	S204-Z2	2CDS254001R0278	
3	S204-Z3	2CDS254001R0318	
4	S204-Z4	2CDS254001R0338	
6	S204-Z6	2CDS254001R0378	
8	S204-Z8	2CDS254001R0408	
10	S204-Z10	2CDS254001R0428	
13	S204-Z13	2CDS254001R0448	
16	S204-Z16	2CDS254001R0468	
20	S204-Z20	2CDS254001R0468	
25	S204-Z25	2CDS254001R0518	
32	S204-Z32	2CDS254001R0538	
40	S204-Z40	2CDS254001R0558	
50	S204-Z50	2CDS254001R0578	
63	S204-Z63	2CDS254001R0608	

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# System ProM compact S200M-B series 10kA

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## Type MB 10kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
6	S201M-B6	2CDS271001R0065	
10	S201M-B10	2CDS271001R0105	
16	S201M-B16	2CDS271001R0165	
20	S201M-B20	2CDS271001R0205	
25	S201M-B25	2CDS271001R0255	
32	S201M-B32	2CDS271001R0325	
40	S201M-B40	2CDS271001R0405	
50	S201M-B50	2CDS271001R0505	
63	S201M-B63	2CDS271001R0635	

Rated Current (A)	Double Pole	Order Code	Price
6	S202M-B6	2CDS272001R0065	
10	S202M-B10	2CDS272001R0105	
16	S202M-B16	2CDS272001R0165	
20	S202M-B20	2CDS272001R0205	
25	S202M-B25	2CDS272001R0255	
32	S202M-B32	2CDS272001R0325	
40	S202M-B40	2CDS272001R0405	
50	S202M-B50	2CDS272001R0505	
63	S202M-B63	2CDS272001R0635	

Rated Current (A)	Triple Pole	Order Code	Price
6	S203M-B6	2CDS273001R0065	
10	S203M-B10	2CDS273001R0105	
16	S203M-B16	2CDS273001R0165	
20	S203M-B20	2CDS273001R0205	
25	S203M-B25	2CDS273001R0255	
32	S203M-B32	2CDS273001R0325	
40	S203M-B40	2CDS273001R0405	
50	S203M-B50	2CDS273001R0505	
63	S203M-B63	2CDS273001R0635	

Rated Current (A)	Four Pole	Order Code	Price
6	S204M-B6	2CDS274001R0065	
10	S204M-B10	2CDS274001R0105	
16	S204M-B16	2CDS274001R0165	
20	S204M-B20	2CDS274001R0205	
25	S204M-B25	2CDS274001R0255	
32	S204M-B32	2CDS274001R0325	
40	S204M-B40	2CDS274001R0405	
50	S204M-B50	2CDS274001R0505	
63	S204M-B63	2CDS274001R0635	

# System ProM compact S200M-C series 10kA

## Type MC 10kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S201M-C1	2CDS271001R0014	
2	S201M-C2	2CDS271001R0024	
3	S201M-C3	2CDS271001R0034	
4	S201M-C4	2CDS271001R0044	
6	S201M-C6	2CDS271001R0064	
8	S201M-C8	2CDS271001R0084	
10	S201M-C10	2CDS271001R0104	
13	S201M-C13	2CDS271001R0134	
16	S201M-C16	2CDS271001R0164	
20	S201M-C20	2CDS271001R0204	
25	S201M-C25	2CDS271001R0254	
32	S201M-C32	2CDS271001R0324	
40	S201M-C40	2CDS271001R0404	
50	S201M-C50	2CDS271001R0504	
63	S201M-C63	2CDS271001R0634	



Rated Current (A)	Double Pole	Order Code	Price
1	S202M-C1	2CDS272001R0014	
2	S202M-C2	2CDS272001R0024	
3	S202M-C3	2CDS272001R0034	
4	S202M-C4	2CDS272001R0044	
6	S202M-C6	2CDS272001R0064	
8	S202M-C8	2CDS272001R0084	
10	S202M-C10	2CDS272001R0104	
13	S202M-C13	2CDS272001R0134	
16	S202M-C16	2CDS272001R0164	
20	S202M-C20	2CDS272001R0204	
25	S202M-C25	2CDS272001R0254	
32	S202M-C32	2CDS272001R0324	
40	S202M-C40	2CDS272001R0404	
50	S202M-C50	2CDS272001R0504	
63	S202M-C63	2CDS272001R0634	

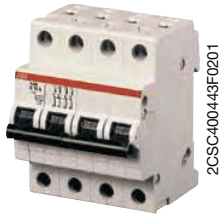
Rated Current (A)	Triple Pole	Order Code	Price
1	S203M-C1	2CDS273001R0014	
2	S203M-C2	2CDS273001R0024	
3	S203M-C3	2CDS273001R0034	
4	S203M-C4	2CDS273001R0044	
6	S203M-C6	2CDS273001R0064	
8	S203M-C8	2CDS273001R0084	
10	S203M-C10	2CDS273001R0104	
13	S203M-C13	2CDS273001R0134	
16	S203M-C16	2CDS273001R0164	
20	S203M-C20	2CDS273001R0204	
25	S203M-C25	2CDS273001R0254	
32	S203M-C32	2CDS273001R0324	
40	S203M-C40	2CDS273001R0404	
50	S203M-C50	2CDS273001R0504	
63	S203M-C63	2CDS273001R0634	



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# System ProM compact S200M-C series 10kA

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2CSC400443F0201



## Type MC 10kA

Rated Current (A)	Four Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S204M-C1	2CDS274004R0014	
2	S204M-C2	2CDS274004R0024	
3	S204M-C3	2CDS274004R0034	
4	S204M-C4	2CDS274004R0044	
6	S204M-C6	2CDS274004R0064	
8	S204M-C8	2CDS274004R0084	
10	S204M-C10	2CDS274004R0104	
13	S204M-C13	2CDS274004R0134	
16	S204M-C16	2CDS274004R0164	
20	S204M-C20	2CDS274004R0204	
25	S204M-C25	2CDS274004R0254	
32	S204M-C32	2CDS274004R0324	
40	S204M-C40	2CDS274004R0404	
50	S204M-C50	2CDS274004R0504	
63	S204M-C63	2CDS274004R0634	



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# System ProM compact S200M-D series 10kA



2CSC400411F0201



2CSC400413F0201



2CSC400415F0201



## Type MD 10kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S201M-D1	2CDS271001R0011	
2	S201M-D2	2CDS271001R0021	
3	S201M-D3	2CDS271001R0031	
4	S201M-D4	2CDS271001R0041	
6	S201M-D6	2CDS271001R0061	
8	S201M-D8	2CDS271001R0081	
10	S201M-D10	2CDS271001R0101	
13	S201M-D13	2CDS271001R0131	
16	S201M-D16	2CDS271001R0161	
20	S201M-D20	2CDS271001R0201	
25	S201M-D25	2CDS271001R0251	
32	S201M-D32	2CDS271001R0321	
40	S201M-D40	2CDS271001R0401	
50	S201M-D50	2CDS271001R0501	
63	S201M-D63	2CDS271001R0631	

Rated Current (A)	Double Pole	Order Code	Price
1	S202M-D1	2CDS272001R0011	
2	S202M-D2	2CDS272001R0021	
3	S202M-D3	2CDS272001R0031	
4	S202M-D4	2CDS272001R0041	
6	S202M-D6	2CDS272001R0061	
8	S202M-D8	2CDS272001R0081	
10	S202M-D10	2CDS272001R0101	
13	S202M-D13	2CDS272001R0131	
16	S202M-D16	2CDS272001R0161	
20	S202M-D20	2CDS272001R0201	
25	S202M-D25	2CDS272001R0251	
32	S202M-D32	2CDS272001R0321	
40	S202M-D40	2CDS272001R0401	
50	S202M-D50	2CDS272001R0501	
63	S202M-D63	2CDS272001R0631	

Rated Current (A)	Triple Pole	Order Code	Price
1	S203M-D1	2CDS273001R0011	
2	S203M-D2	2CDS273001R0021	
3	S203M-D3	2CDS273001R0031	
4	S203M-D4	2CDS273001R0041	
6	S203M-D6	2CDS273001R0061	
6	S203M-D8	2CDS273001R0081	
10	S203M-D10	2CDS273001R0101	
13	S202M-D13	2CDS273001R0131	
16	S203M-D16	2CDS273001R0161	
20	S203M-D20	2CDS273001R0201	
25	S203M-D25	2CDS273001R0251	
32	S203M-D32	2CDS273001R0321	
40	S203M-D40	2CDS273001R0401	
50	S203M-D50	2CDS273001R0501	
63	S203M-D63	2CDS273001R0631	



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# System ProM compact S200M-D series 10kA

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2CSC400443F0201



## Type MD 10kA

Rated Current (A)	Four Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S204M-D1	2CDS274001R0011	
2	S204M-D2	2CDS274001R0021	
3	S204M-D3	2CDS274001R0031	
4	S204M-D4	2CDS274001R0041	
6	S204M-D6	2CDS274001R0061	
8	S204M-D8	2CDS274001R0081	
10	S204M-D10	2CDS274001R0101	
13	S204M-D13	2CDS274001R0131	
16	S204M-D16	2CDS274001R0161	
20	S204M-D20	2CDS274001R0201	
25	S204M-D25	2CDS274001R0251	
32	S204M-D32	2CDS274001R0321	
40	S204M-D40	2CDS274001R0401	
50	S204M-D50	2CDS274001R0501	
63	S204M-D63	2CDS274001R0631	



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# System ProM compact S200M-K series 10kA



2CSC400411F0201



2CSC400413F0201



2CSC400415F0201



## Type MK 10kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
0.5	S201M-K0.5	2CDS271001R0157	
1	S201M-K1	2CDS271001R0217	
2	S201M-K2	2CDS271001R0277	
3	S201M-K3	2CDS271001R0317	
4	S201M-K4	2CDS271001R0337	
6	S201M-K6	2CDS271001R0377	
8	S201M-K8	2CDS271001R0407	
10	S201M-K10	2CDS271001R0427	
13	S201M-K13	2CDS271001R0447	
16	S201M-K16	2CDS271001R0467	
20	S201M-K20	2CDS271001R0487	
25	S201M-K25	2CDS271001R0517	
32	S201M-K32	2CDS271001R0537	

Rated Current (A)	Double Pole	Order Code	Price
0.5	S202M-K0.5	2CDS272001R0157	
1	S202M-K1	2CDS272001R0217	
2	S202M-K2	2CDS272001R0277	
3	S202M-K3	2CDS272001R0317	
4	S202M-K4	2CDS272001R0337	
6	S202M-K6	2CDS272001R0377	
8	S202M-K8	2CDS272001R0407	
10	S202M-K10	2CDS272001R0427	
13	S202M-K13	2CDS272001R0447	
16	S202M-K16	2CDS272001R0467	
20	S202M-K20	2CDS272001R0487	
25	S202M-K25	2CDS272001R0517	
32	S202M-K32	2CDS272001R0537	
40	S202M-K40	2CDS272001R0557	
50	S202M-K50	2CDS272001R0577	
63	S202M-K63	2CDS272001R0607	

Rated Current (A)	Triple Pole	Order Code	Price
1	S203M-K1	2CDS273001R0217	
2	S203M-K2	2CDS273001R0277	
4	S203M-K4	2CDS273001R0337	
6	S203M-K6	2CDS273001R0377	
8	S203M-K8	2CDS273001R0407	
10	S203M-K10	2CDS273001R0427	
13	S203M-K13	2CDS273001R0447	
16	S203M-K16	2CDS273001R0467	
20	S203M-K20	2CDS273001R0487	
32	S203M-K32	2CDS273001R0537	
40	S203M-K40	2CDS273001R0557	
50	S203M-K50	2CDS273001R0577	
63	S203M-K63	2CDS273001R0607	



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# System ProM compact S200M-K series 10kA

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## Type MK 10kA

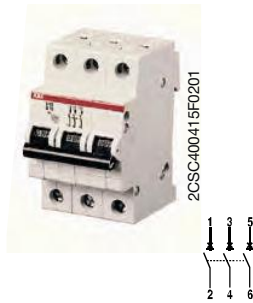
Rated Current (A)	Four Pole	Product Hierarchy 2400004	
		Order Code	Price
1	S204M-K1	2CDS274001R0217	
2	S204M-K2	2CDS274001R0277	
3	S204M-K3	2CDS274001R0317	
4	S204M-K4	2CDS274001R0337	
6	S204M-K6	2CDS274001R0377	
8	S204M-K8	2CDS274001R0407	
10	S204M-K10	2CDS274001R0427	
13	S204M-K13	2CDS274001R0447	
16	S204M-K16	2CDS274001R0467	
20	S204M-K20	2CDS274001R0487	
25	S204M-K25	2CDS274001R0517	
32	S204M-K32	2CDS274001R0537	
40	S204M-K40	2CDS274001R0557	
50	S204M-K50	2CDS274001R0577	
63	S204M-K63	2CDS274001R0607	



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# System ProM compact S200M-Z series 10kA



## Type MZ 10kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
0.5	S201M-Z0.5	2CDS271001R0158	
1	S201M-Z1	2CDS271001R0218	
2	S201M-Z2	2CDS271001R0278	
3	S201M-Z3	2CDS271001R0318	
4	S201M-Z4	2CDS271001R0338	
6	S201M-Z6	2CDS271001R0378	
8	S201M-Z8	2CDS271001R0408	
10	S201M-Z10	2CDS271001R0428	
13	S201M-Z13	2CDS271001R0448	
16	S201M-Z16	2CDS271001R0468	
20	S201M-Z20	2CDS271001R0488	
25	S201M-Z25	2CDS271001R0518	
32	S201M-Z32	2CDS271001R0538	
40	S201M-Z40	2CDS271001R0558	
50	S201M-Z50	2CDS271001R0578	
63	S201M-Z63	2CDS271001R0608	

Rated Current (A)	Double Pole	Order Code	Price
0.5	S202M-Z0.5	2CDS272001R0158	
1	S202M-Z1	2CDS272001R0218	
2	S202M-Z2	2CDS272001R0278	
3	S202M-Z3	2CDS272001R0318	
4	S202M-Z4	2CDS272001R0338	
6	S202M-Z6	2CDS272001R0378	
8	S202M-Z8	2CDS272001R0408	
10	S202M-Z10	2CDS272001R0428	
13	S202M-Z13	2CDS272001R0448	
16	S202M-Z16	2CDS272001R0468	
20	S202M-Z20	2CDS272001R0488	
25	S202M-Z25	2CDS272001R0518	
32	S202M-Z32	2CDS272001R0538	
40	S202M-Z40	2CDS272001R0558	
50	S202M-Z50	2CDS272001R0578	
63	S202M-Z63	2CDS272001R0608	

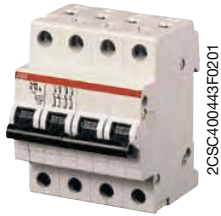
Rated Current (A)	Triple Pole	Order Code	Price
0.5	S203M-Z0.5	2CDS273001R0158	
1	S203M-Z1	2CDS273001R0218	
2	S203M-Z2	2CDS273001R0278	
3	S203M-Z3	2CDS273001R0318	
4	S203M-Z4	2CDS273001R0338	
6	S203M-Z6	2CDS273001R0378	
8	S203M-Z8	2CDS273001R0408	
10	S203M-Z10	2CDS273001R0428	
13	S203M-Z13	2CDS273001R0448	
16	S203M-Z16	2CDS273001R0468	
20	S203M-Z20	2CDS273001R0488	
25	S203M-Z25	2CDS273001R0518	
32	S203M-Z32	2CDS273001R0538	
40	S203M-Z40	2CDS273001R0558	
50	S203M-Z50	2CDS273001R0578	
63	S203M-Z63	2CDS273001R0608	



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# System ProM compact S200M-Z series 10kA

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## Type MZ 10kA

Rated Current (A)	Four Pole	Product Hierarchy 2400004	
		Order Code	Price
0.5	S204M-Z0.5	2CDS274001R0158	
1	S204M-Z1	2CDS274001R0218	
2	S204M-Z2	2CDS274001R0278	
3	S204M-Z3	2CDS274001R0318	
4	S204M-Z4	2CDS274001R0338	
6	S204M-Z6	2CDS274001R0378	
8	S204M-Z8	2CDS274001R0408	
10	S204M-Z10	2CDS274001R0428	
13	S204M-Z13	2CDS274001R0448	
16	S204M-Z16	2CDS274001R0468	
20	S204M-Z20	2CDS274001R0488	
25	S204M-Z25	2CDS274001R0518	
32	S204M-Z32	2CDS274001R0538	
40	S204M-Z40	2CDS274001R0558	
50	S204M-Z50	2CDS274001R0578	
63	S204M-Z63	2CDS274001R0608	



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# System ProM compact S200P-K & C series 25kA



## Type PK

Rated Current (A)	Single Pole	Product Hierarchy 2400002	
		Order Code	Price
3	S201P-K3 25kA	2CDS281001R0317	
6	S201P-K6 25kA	2CDS281001R0377	
10	S201P-K10 25kA	2CDS281001R0427	
20	S201P-K20 25kA	2CDS281001R0487	
32	S201P-K32 15kA	2CDS281001R0537	
40	S201P-K40 15kA	2CDS281001R0557	

Rated Current (A)	Double Pole	Order Code	Price
1	S202P-K1 25kA	2CDS282001R0217	
2	S202P-K2 25kA	2CDS282001R0277	
3	S202P-K3 25kA	2CDS282001R0317	
4	S202P-K4 25kA	2CDS282001R0337	
6	S202P-K6 25kA	2CDS282001R0377	
8	S202P-K8 25kA	2CDS282001R0407	
16	S202P-K16 25kA	2CDS282001R0467	
20	S202P-K20 25kA	2CDS282001R0487	
25	S202P-K25 25kA	2CDS282001R0517	
40	S202P-K40 15kA	2CDS282001R0557	
50	S202P-K50 15kA	2CDS282001R0577	

Rated Current (A)	Triple Pole	Order Code	Price
6	S203P-K6 25kA	2CDS283001R0377	
16	S203P-K16 25kA	2CDS283001R0467	
32	S203P-K32 15kA	2CDS283001R0537	

## Type PC

Rated Current (A)	Single Pole	Product Hierarchy 2400002	
		Order Code	Price
16	S201P-C16 25kA	2CDS281001R0164	
20	S201P-C20 25kA	2CDS281001R0204	
32	S201P-C32 15kA	2CDS281001R0324	



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# System ProM compact

## SN201-B, C, D series 6kA - single pole & switched neutral

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Type B 6kA		Product Hierarchy 2400002	
Rated Current (A)	Single Pole + Switched Neutral	Order Code	Price
6	SN201-B6	2CSS255101R0065	
10	SN201-B10	2CSS255101R0105	
16	SN201-B16	2CSS255101R0165	
20	SN201-B20	2CSS255101R0205	
25	SN201-B25	2CSS255101R0255	
32	SN201-B32	2CSS255101R0325	
40	SN201-B40	2CSS255101R0405	

Type C 6kA		Product Hierarchy 2400002	
Rated Current (A)	Single Pole + Switched Neutral	Order Code	Price
2	SN201-C2	2CSS255101R0024	
4	SN201-C4	2CSS255101R0044	
6	SN201-C6	2CSS255101R0064	
10	SN201-C10	2CSS255101R0104	
13	SN201-C13	2CSS255101R0134	
16	SN201-C16	2CSS255101R0164	
20	SN201-C20	2CSS255101R0204	
25	SN201-C25	2CSS255101R0254	
32	SN201-C32	2CSS255101R0324	
40	SN201-C40	2CSS255101R0404	

Type D 6kA		Product Hierarchy 2400002	
Rated Current (A)	Single Pole + Switched Neutral	Order Code	Price
6	SN201-D6	2CSS255101R0061	
10	SN201-D10	2CSS255101R0101	
16	SN201-D16	2CSS255101R0161	
20	SN201-D20	2CSS255101R0201	
25	SN201-D25	2CSS255101R0251	
32	SN201-D32	2CSS255101R0321	
40	SN201-D40	2CSS255101R0401	



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# System ProM compact

## SN201M-B & C series 10kA - single pole & switched neutral



### Type B 10kA

Rated Current (A)	Single Pole + Switched Neutral	Product Hierarchy 2400002	
		Order Code	Price
6	SN201M-B6	2CSS275101R0065	
10	SN201M-B10	2CSS275101R0105	
16	SN201M-B16	2CSS275101R0165	
20	SN201M-B20	2CSS275101R0205	
25	SN201M-B25	2CSS275101R0255	
32	SN201M-B32	2CSS275101R0325	
40	SN201M-B40	2CSS275101R0405	

### Type C 10kA

Rated Current (A)	Single Pole + Switched Neutral	Product Hierarchy 2400002	
		Order Code	Price
2	SN201M-C2	2CSS275101R0024	
4	SN201M-C4	2CSS275101R0044	
6	SN201M-C6	2CSS275101R0064	
10	SN201M-C10	2CSS275101R0104	
16	SN201M-C16	2CSS275101R0134	
20	SN201M-C20	2CSS275101R0204	
25	SN201M-C25	2CSS275101R0254	
32	SN201M-C32	2CSS275101R0324	
40	SN201M-C40	2CSS275101R0404	



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# System ProM compact S280 B & C series 6kA

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## Type B 6kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S281-B80	GHS2810001R0805	
100	S281-B100	GHS2810001R0825	

Rated Current (A)	Double Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S282-B80	GHS2820001R0805	
100	S282-B100	GHS2820001R0825	

Rated Current (A)	Triple Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S283-B80	GHS2830001R0805	
100	S283-B100	GHS2830001R0825	

Rated Current (A)	Four Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S284-B80	GHS2840001R0805	
100	S284-B100	GHS2840001R0825	



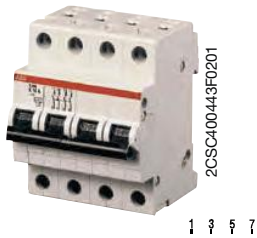
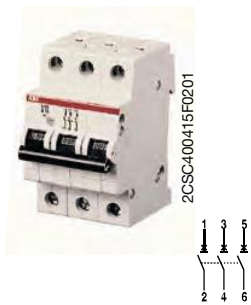
## Type C 6kA

Rated Current (A)	Single Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S281-C80	GHS2810001R0804	
100	S281-C100	GHS2810001R0824	

Rated Current (A)	Double Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S282-C80	GHS2820001R0804	
100	S282-C100	GHS2820001R0824	

Rated Current (A)	Triple Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S283-C80	GHS2830001R0804	
100	S283-C100	GHS2830001R0824	

Rated Current (A)	Four Pole	Product Hierarchy 2400004	
		Order Code	Price
80	S284-C80	GHS2840001R0804	
100	S284-C100	GHS2840001R0824	



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# System ProM compact

## S800S series - type B 50kA



### Type SB 50kA

Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S801S-B6	2CCS861001R0065	
8	S801S-B8	2CCS861001R0085	
10	S801S-B10	2CCS861001R0105	
16	S801S-B16	2CCS861001R0165	
20	S801S-B20	2CCS861001R0205	
25	S801S-B25	2CCS861001R0255	
32	S801S-B32	2CCS861001R0325	
40	S801S-B40	2CCS861001R0405	
50	S801S-B50	2CCS861001R0505	
63	S801S-B63	2CCS861001R0635	
80	S801S-B80	2CCS861001R0805	
100	S801S-B100	2CCS861001R0825	
125	S801S-B125	2CCS861001R0845	

Rated Current (A)	Dou-Ble Pole	Order Code	Price
6	S802S-B6	2CCS862001R0065	
8	S802S-B8	2CCS862001R0085	
10	S802S-B10	2CCS862001R0105	
16	S802S-B16	2CCS862001R0165	
20	S802S-B20	2CCS862001R0205	
25	S802S-B25	2CCS862001R0255	
32	S802S-B32	2CCS862001R0325	
40	S802S-B40	2CCS862001R0405	
50	S802S-B50	2CCS862001R0505	
63	S802S-B63	2CCS862001R0635	
80	S802S-B80	2CCS862001R0805	
100	S802S-B100	2CCS862001R0825	
125	S802S-B125	2CCS862001R0845	

Rated Current (A)	Triple Pole	Order Code	Price
6	S803S-B6	2CCS863001R0065	
8	S803S-B8	2CCS863001R0085	
10	S803S-B10	2CCS863001R0105	
16	S803S-B16	2CCS863001R0165	
20	S803S-B20	2CCS863001R0205	
25	S803S-B25	2CCS863001R0255	
32	S803S-B32	2CCS863001R0325	
40	S803S-B40	2CCS863001R0405	
50	S803S-B50	2CCS863001R0505	
63	S803S-B63	2CCS863001R0635	
80	S803S-B80	2CCS863001R0805	
100	S803S-B100	2CCS863001R0825	
125	S803S-B125	2CCS863001R0845	



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# System ProM compact

## S800S series - type B 50kA

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### Type B 50kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S804S-B6	2CCS864001R0065	
8	S804S-B8	2CCS864001R0085	
10	S804S-B10	2CCS864001R0105	
16	S804S-B16	2CCS864001R0165	
20	S804S-B20	2CCS864001R0205	
25	S804S-B25	2CCS864001R0255	
32	S804S-B32	2CCS864001R0325	
40	S804S-B40	2CCS864001R0405	
50	S804S-B50	2CCS864001R0505	
63	S804S-B63	2CCS864001R0635	
80	S804S-B80	2CCS864001R0805	
100	S804S-B100	2CCS864001R0825	
125	S804S-B125	2CCS864001R0845	



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# System ProM compact

## S800S series - type C 50kA



### Type C 50kA

#### Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S801S-C6	2CCS861001R0064	
8	S801S-C8	2CCS861001R0084	
10	S801S-C10	2CCS861001R0104	
16	S801S-C16	2CCS861001R0164	
20	S801S-C20	2CCS861001R0204	
25	S801S-C25	2CCS861001R0254	
32	S801S-C32	2CCS861001R0324	
40	S801S-C40	2CCS861001R0404	
50	S801S-C50	2CCS861001R0504	
63	S801S-C63	2CCS861001R0634	
80	S801S-C80	2CCS861001R0804	
100	S801S-C100	2CCS861001R0824	
125	S801S-C125	2CCS861001R0844	

Rated Current (A)	Double Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S802S-C6	2CCS862001R0064	
8	S802S-C8	2CCS862001R0084	
10	S802S-C10	2CCS862001R0104	
16	S802S-C16	2CCS862001R0164	
20	S802S-C20	2CCS862001R0204	
25	S802S-C25	2CCS862001R0254	
32	S802S-C32	2CCS862001R0324	
40	S802S-C40	2CCS862001R0404	
50	S802S-C50	2CCS862001R0504	
63	S802S-C63	2CCS862001R0634	
80	S802S-C80	2CCS862001R0804	
100	S802S-C100	2CCS862001R0824	
125	S802S-C125	2CCS862001R0844	

Rated Current (A)	Triple Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S803S-C6	2CCS863001R0064	
8	S803S-C8	2CCS863001R0084	
10	S803S-C10	2CCS863001R0104	
16	S803S-C16	2CCS863001R0164	
20	S803S-C20	2CCS863001R0204	
25	S803S-C25	2CCS863001R0254	
32	S803S-C32	2CCS863001R0324	
40	S803S-C40	2CCS863001R0404	
50	S803S-C50	2CCS863001R0504	
63	S803S-C63	2CCS863001R0634	
80	S803S-C80	2CCS863001R0804	
100	S803S-C100	2CCS863001R0824	
125	S803S-C125	2CCS863001R0844	



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# System ProM compact

## S800S series - type C 50kA

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### Type C 50kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S804S-C6	2CCS864001R0064	
8	S804S-C8	2CCS864001R0084	
10	S804S-C10	2CCS864001R0104	
16	S804S-C16	2CCS864001R0164	
20	S804S-C20	2CCS864001R0204	
25	S804S-C25	2CCS864001R0254	
32	S804S-C32	2CCS864001R0324	
40	S804S-C40	2CCS864001R0404	
50	S804S-C50	2CCS864001R0504	
63	S804S-C63	2CCS864001R0634	
80	S804S-C80	2CCS864001R0804	
100	S804S-C100	2CCS864001R0824	
125	S804S-C125	2CCS864001R0844	



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# System ProM compact

## S800S series - type K 50kA



### Type K 50kA

#### Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S801S-K6	2CCS861001R0067	
8	S801S-K8	2CCS861001R0407	
10	S801S-K10	2CCS861001R0427	
16	S801S-K16	2CCS861001R0467	
20	S801S-K20	2CCS861001R0487	
25	S801S-K25	2CCS861001R0517	
32	S801S-K32	2CCS861001R0537	
40	S801S-K40	2CCS861001R0557	
50	S801S-K50	2CCS861001R0577	
63	S801S-K63	2CCS861001R0597	
80	S801S-K80	2CCS861001R0627	
100	S801S-K100	2CCS861001R0637	
125	S801S-K125	2CCS861001R0647	

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Rated Current (A)	Double Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S802S-K6	2CCS862001R0067	
8	S802S-K8	2CCS862001R0407	
10	S802S-K10	2CCS862001R0427	
16	S802S-K16	2CCS862001R0467	
20	S802S-K20	2CCS862001R0487	
25	S802S-K25	2CCS862001R0517	
32	S802S-K32	2CCS862001R0537	
40	S802S-K40	2CCS862001R0557	
50	S802S-K50	2CCS862001R0577	
63	S802S-K63	2CCS862001R0597	
80	S802S-K80	2CCS862001R0627	
100	S802S-K100	2CCS862001R0637	
125	S802S-K125	2CCS862001R0647	

Rated Current (A)	Triple Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S803S-K6	2CCS863001R0067	
8	S803S-K8	2CCS863001R0407	
10	S803S-K10	2CCS863001R0427	
16	S803S-K16	2CCS863001R0467	
20	S803S-K20	2CCS863001R0487	
25	S803S-K25	2CCS863001R0517	
32	S803S-K32	2CCS863001R0537	
40	S803S-K40	2CCS863001R0557	
50	S803S-K50	2CCS863001R0577	
63	S803S-K63	2CCS863001R0597	
80	S803S-K80	2CCS863001R0627	
100	S803S-K100	2CCS863001R0637	
125	S803S-K125	2CCS863001R0647	

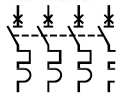


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# System ProM compact S800S series - type K 50kA

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## Type C 50kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
6	S804S-K6	2CCS864001R0067	
8	S804S-K8	2CCS864001R0407	
10	S804S-K10	2CCS864001R0427	
16	S804S-K16	2CCS864001R0467	
20	S804S-K20	2CCS864001R0487	
25	S804S-K25	2CCS864001R0517	
32	S804S-K32	2CCS864001R0537	
40	S804S-K40	2CCS864001R0557	
50	S804S-K50	2CCS864001R0577	
63	S804S-K63	2CCS864001R0597	
80	S804S-K80	2CCS864001R0627	
100	S804S-K100	2CCS864001R0637	
125	S804S-K125	2CCS864001R0647	



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# System ProM compact

## S800N series - type B 36kA



### Type B 36kA

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S801N-B10	2CCS891001R0105	
13	S801N-B13	2CCS891001R0135	
16	S801N-B16	2CCS891001R0165	
20	S801N-B20	2CCS891001R0205	
25	S801N-B25	2CCS891001R0255	
32	S801N-B32	2CCS891001R0325	
40	S801N-B40	2CCS891001R0405	
50	S801N-B50	2CCS891001R0505	
63	S801N-B63	2CCS891001R0635	
80	S801N-B80	2CCS891001R0805	
100	S801N-B100	2CCS891001R0825	
125	S801N-B125	2CCS891001R0845	

Rated Current (A)	Double Pole	Order Code	Price
10	S802N-B10	2CCS892001R0105	
13	S802N-B13	2CCS892001R0135	
16	S802N-B16	2CCS892001R0165	
20	S802N-B20	2CCS892001R0205	
25	S802N-B25	2CCS892001R0255	
32	S802N-B32	2CCS892001R0325	
40	S802N-B40	2CCS892001R0405	
50	S802N-B50	2CCS892001R0505	
63	S802N-B63	2CCS892001R0635	
80	S802N-B80	2CCS892001R0805	
100	S802N-B100	2CCS892001R0825	
125	S802N-B125	2CCS892001R0845	

Rated Current (A)	Triple Pole	Order Code	Price
10	S803N-B10	2CCS893001R0105	
13	S803N-B13	2CCS893001R0135	
16	S803N-B16	2CCS893001R0165	
20	S803N-B20	2CCS893001R0205	
25	S803N-B25	2CCS893001R0255	
32	S803N-B32	2CCS893001R0325	
40	S803N-B40	2CCS893001R0405	
50	S803N-B50	2CCS893001R0505	
63	S803N-B63	2CCS893001R0635	
80	S803N-B80	2CCS893001R0805	
100	S803N-B100	2CCS893001R0825	
125	S803N-B125	2CCS893001R0845	



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# System ProM compact

## S800N series - type B 36kA



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### Type B 36kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S804N-B10	2CCS894001R0105	
13	S804N-B13	2CCS894001R0135	
16	S804N-B16	2CCS894001R0165	
20	S804N-B20	2CCS894001R0205	
25	S804N-B25	2CCS894001R0255	
32	S804N-B32	2CCS894001R0325	
40	S804N-B40	2CCS894001R0405	
50	S804N-B50	2CCS894001R0505	
63	S804N-B63	2CCS894001R0635	
80	S804N-B80	2CCS894001R0805	
100	S804N-B100	2CCS894001R0825	
125	S804N-B125	2CCS894001R0845	



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# System ProM compact

## S800N series - type C 36kA



### Type C 36kA

#### Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S801N-C10	2CCS891001R0104	
13	S801N-C13	2CCS891001R0134	
16	S801N-C16	2CCS891001R0164	
20	S801N-C20	2CCS891001R0204	
25	S801N-C25	2CCS891001R0254	
32	S801N-C32	2CCS891001R0324	
40	S801N-C40	2CCS891001R0404	
50	S801N-C50	2CCS891001R0504	
63	S801N-C63	2CCS891001R0634	
80	S801N-C80	2CCS891001R0804	
100	S801N-C100	2CCS891001R0824	
125	S801N-C125	2CCS891001R0844	

Rated Current (A)	Double Pole	Order Code	Price
10	S802N-C10	2CCS892001R0104	
13	S802N-C13	2CCS892001R0134	
16	S802N-C16	2CCS892001R0164	
20	S802N-C20	2CCS892001R0204	
25	S802N-C25	2CCS892001R0254	
32	S802N-C32	2CCS892001R0324	
40	S802N-C40	2CCS892001R0404	
50	S802N-C50	2CCS892001R0504	
63	S802N-C63	2CCS892001R0634	
80	S802N-C80	2CCS892001R0804	
100	S802N-C100	2CCS892001R0824	
125	S802N-C125	2CCS892001R0844	

Rated Current (A)	Triple Pole	Order Code	Price
10	S803N-C10	2CCS893001R0104	
13	S803N-C13	2CCS893001R0134	
16	S803N-C16	2CCS893001R0164	
20	S803N-C20	2CCS893001R0204	
25	S803N-C25	2CCS893001R0254	
32	S803N-C32	2CCS893001R0324	
40	S803N-C40	2CCS893001R0404	
50	S803N-C50	2CCS893001R0504	
63	S803N-C63	2CCS893001R0634	
80	S803N-C80	2CCS893001R0804	
100	S803N-C100	2CCS893001R0824	
125	S803N-C125	2CCS893001R0844	



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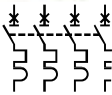
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# System ProM compact

## S800N series - type C 36kA



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### Type C 36kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S804N-C10	2CCS894001R0104	
13	S804N-C13	2CCS894001R0134	
16	S804N-C16	2CCS894001R0164	
20	S804N-C20	2CCS894001R0204	
25	S804N-C25	2CCS894001R0254	
32	S804N-C32	2CCS894001R0324	
40	S804N-C40	2CCS894001R0404	
50	S804N-C50	2CCS894001R0504	
63	S804N-C63	2CCS894001R0634	
80	S804N-C80	2CCS894001R0804	
100	S804N-C100	2CCS894001R0824	
125	S804N-C125	2CCS894001R0844	



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# System ProM compact

## S800N series - type D 36kA



### Type D 36kA

#### Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S801N-D10	2CCS891001R0101	
13	S801N-D13	2CCS891001R0131	
16	S801N-D16	2CCS891001R0161	
20	S801N-D20	2CCS891001R0201	
25	S801N-D25	2CCS891001R0251	
32	S801N-D32	2CCS891001R0321	
40	S801N-D40	2CCS891001R0401	
50	S801N-D50	2CCS891001R0501	
63	S801N-D63	2CCS891001R0631	
80	S801N-D80	2CCS891001R0801	
100	S801N-D100	2CCS891001R0821	
125	S801N-D125	2CCS891001R0841	

Rated Current (A)	Double Pole	Order Code	Price
10	S802N-D10	2CCS892001R0101	
13	S802N-D13	2CCS892001R0131	
16	S802N-D16	2CCS892001R0161	
20	S802N-D20	2CCS892001R0201	
25	S802N-D25	2CCS892001R0251	
32	S802N-D32	2CCS892001R0321	
40	S802N-D40	2CCS892001R0401	
50	S802N-D50	2CCS892001R0501	
63	S802N-D63	2CCS892001R0631	
80	S802N-D80	2CCS892001R0801	
100	S802N-D100	2CCS892001R0821	
125	S802N-D125	2CCS892001R0841	

Rated Current (A)	Triple Pole	Order Code	Price
10	S803N-D10	2CCS893001R0101	
13	S803N-D13	2CCS893001R0131	
16	S803N-D16	2CCS893001R0161	
20	S803N-D20	2CCS893001R0201	
25	S803N-D25	2CCS893001R0251	
32	S803N-D32	2CCS893001R0321	
40	S803N-D40	2CCS893001R0401	
50	S803N-D50	2CCS893001R0501	
63	S803N-D63	2CCS893001R0631	
80	S803N-D80	2CCS893001R0801	
100	S803N-D100	2CCS893001R0821	
125	S803N-D125	2CCS893001R0841	

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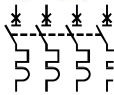
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# System ProM compact

## S800N series - type D 36kA



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### Type D 36kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S804N-D10	2CCS894001R0101	
13	S804N-D13	2CCS894001R0131	
16	S804N-D16	2CCS894001R0161	
20	S804N-D20	2CCS894001R0201	
25	S804N-D25	2CCS894001R0251	
32	S804N-D32	2CCS894001R0321	
40	S804N-D40	2CCS894001R0401	
50	S804N-D50	2CCS894001R0501	
63	S804N-D63	2CCS894001R0631	
80	S804N-D80	2CCS894001R0801	
100	S804N-D100	2CCS894001R0821	
125	S804N-D125	2CCS894001R0841	



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# System ProM compact

## S800C series - type B 25kA



### Type B 25kA

#### Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S801C-B10	2CCS881001R0105	
13	S801C-B13	2CCS881001R0135	
16	S801C-B16	2CCS881001R0165	
20	S801C-B20	2CCS881001R0205	
25	S801C-B25	2CCS881001R0255	
32	S801C-B32	2CCS881001R0325	
40	S801C-B40	2CCS881001R0405	
50	S801C-B50	2CCS881001R0505	
63	S801C-B63	2CCS883001R0635	
80	S801C-B80	2CCS883001R0805	
100	S801C-B100	2CCS883001R0825	
125	S801C-B125	2CCS883001R0845	

Rated Current (A)	Double Pole	Order Code	Price
10	S802C-B10	2CCS882001R0105	
13	S802C-B13	2CCS882001R0135	
16	S802C-B16	2CCS882001R0165	
20	S802C-B20	2CCS882001R0205	
25	S802C-B25	2CCS882001R0255	
32	S802C-B32	2CCS882001R0325	
40	S802C-B40	2CCS882001R0405	
50	S802C-B50	2CCS882001R0505	
63	S802C-B63	2CCS882001R0635	
80	S802C-B80	2CCS882001R0805	
100	S802C-B100	2CCS882001R0825	
125	S802C-B125	2CCS882001R0845	

Rated Current (A)	Triple Pole	Order Code	Price
10	S803C-B10	2CCS883001R0105	
13	S803C-B13	2CCS883001R0135	
16	S803C-B16	2CCS883001R0165	
20	S803C-B20	2CCS883001R0205	
25	S803C-B25	2CCS883001R0255	
32	S803C-B32	2CCS883001R0325	
40	S803C-B40	2CCS883001R0405	
50	S803C-B50	2CCS883001R0505	
63	S803C-B63	2CCS883001R0635	
80	S803C-B80	2CCS883001R0805	
100	S803C-B100	2CCS883001R0825	
125	S803C-B125	2CCS883001R0845	



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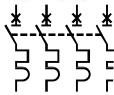
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# System ProM compact

## S800C series - type B 25kA



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### Type B 25kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S804B-B10	2CCS884001R0105	
13	S804B-B13	2CCS884001R0135	
16	S804B-B16	2CCS884001R0165	
20	S804B-B20	2CCS884001R0205	
25	S804B-B25	2CCS884001R0255	
32	S804B-B32	2CCS884001R0325	
40	S804B-B40	2CCS884001R0405	
50	S804B-B50	2CCS884001R0505	
63	S804B-B63	2CCS884001R0635	
80	S804B-B80	2CCS884001R0805	
100	S804B-B100	2CCS884001R0825	
125	S804B-B125	2CCS884001R0845	



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# System ProM compact

## S800C series - type C 25kA



### Type C 25kA

#### Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S801C-C10	2CCS881001R0104	
13	S801C-C13	2CCS881001R0134	
16	S801C-C16	2CCS881001R0164	
20	S801C-C20	2CCS881001R0204	
25	S801C-C25	2CCS881001R0254	
32	S801C-C32	2CCS881001R0324	
40	S801C-C40	2CCS881001R0404	
50	S801C-C50	2CCS881001R0504	
63	S801C-C63	2CCS881001R0634	
80	S801C-C80	2CCS881001R0804	
100	S801C-C100	2CCS881001R0824	
125	S801C-C125	2CCS881001R0844	

Rated Current (A)	Double Pole	Order Code	Price
10	S802C-C10	2CCS882001R0104	
13	S802C-C13	2CCS882001R0134	
16	S802C-C16	2CCS882001R0164	
20	S802C-C20	2CCS882001R0204	
25	S802C-C25	2CCS882001R0254	
32	S802C-C32	2CCS882001R0324	
40	S802C-C40	2CCS882001R0404	
50	S802C-C50	2CCS882001R0504	
63	S802C-C63	2CCS882001R0634	
80	S802C-C80	2CCS882001R0804	
100	S802C-C100	2CCS882001R0824	
125	S802C-C125	2CCS882001R0844	

Rated Current (A)	Triple Pole	Order Code	Price
10	S803C-C10	2CCS883001R0104	
13	S803C-C13	2CCS883001R0134	
16	S803C-C16	2CCS883001R0164	
20	S803C-C20	2CCS883001R0204	
25	S803C-C25	2CCS883001R0254	
32	S803C-C32	2CCS883001R0324	
40	S803C-C40	2CCS883001R0404	
50	S803C-C50	2CCS883001R0504	
63	S803C-C63	2CCS883001R0634	
80	S803C-C80	2CCS883001R0804	
100	S803C-C100	2CCS883001R0824	
125	S803C-C125	2CCS883001R0844	



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# System ProM compact

## S800C series - type C 25kA



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### Type C 25kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S804C-C10	2CCS884001R0104	
13	S804C-C13	2CCS884001R0134	
16	S804C-C16	2CCS884001R0164	
20	S804C-C20	2CCS884001R0204	
25	S804C-C25	2CCS884001R0254	
32	S804C-C32	2CCS884001R0324	
40	S804C-C40	2CCS884001R0404	
50	S804C-C50	2CCS884001R0504	
63	S804C-C63	2CCS884001R0634	
80	S804C-C80	2CCS884001R0804	
100	S804C-C100	2CCS884001R0824	
125	S804C-C125	2CCS884001R0844	



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# System ProM compact

## S800C series - type D 25kA



### Type D 25kA

#### Product Hierarchy 2400003

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S801C-D10	2CCS881001R0101	
13	S801C-D13	2CCS881001R0131	
16	S801C-D16	2CCS881001R0161	
20	S801C-D20	2CCS881001R0201	
25	S801C-D25	2CCS881001R0251	
32	S801C-D32	2CCS881001R0321	
40	S801C-D40	2CCS881001R0401	
50	S801C-D50	2CCS881001R0501	
63	S801C-D63	2CCS881001R0631	
80	S801C-D80	2CCS881001R0801	
100	S801C-D100	2CCS881001R0821	
125	S801C-D125	2CCS881001R0841	

Rated Current (A)	Double Pole	Order Code	Price
10	S802C-D10	2CCS882001R0101	
13	S802C-D13	2CCS882001R0131	
16	S802C-D16	2CCS882001R0161	
20	S802C-D20	2CCS882001R0201	
25	S802C-D25	2CCS882001R0251	
32	S802C-D32	2CCS882001R0321	
40	S802C-D40	2CCS882001R0401	
50	S802C-D50	2CCS882001R0501	
63	S802C-D63	2CCS882001R0631	
80	S802C-D80	2CCS882001R0801	
100	S802C-D100	2CCS882001R0821	
125	S802C-D125	2CCS882001R0841	

Rated Current (A)	Triple Pole	Order Code	Price
10	S803C-D10	2CCS883001R0101	
13	S803C-D13	2CCS883001R0131	
16	S803C-D16	2CCS883001R0161	
20	S803C-D20	2CCS883001R0201	
25	S803C-D25	2CCS883001R0251	
32	S803C-D32	2CCS883001R0321	
40	S803C-D40	2CCS883001R0401	
50	S803C-D50	2CCS883001R0501	
63	S803C-D63	2CCS883001R0631	
80	S803C-D80	2CCS883001R0801	
100	S803C-D100	2CCS883001R0821	
125	S803C-D125	2CCS883001R0841	

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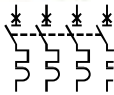
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# System ProM compact

## S800C series - type D 25kA



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### Type D 25kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S804C-D10	2CCS884001R0101	
13	S804C-D13	2CCS884001R0131	
16	S804C-D16	2CCS884001R0161	
20	S804C-D20	2CCS884001R0201	
25	S804C-D25	2CCS884001R0251	
32	S804C-D32	2CCS884001R0321	
40	S804C-D40	2CCS884001R0401	
50	S804C-D50	2CCS884001R0501	
63	S804C-D63	2CCS884001R0631	
80	S804C-D80	2CCS884001R0801	
100	S804C-D100	2CCS884001R0821	
125	S804C-D125	2CCS884001R0841	



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# System ProM compact

## S800C series - type K 25kA



### Type K 25kA

Rated Current (A)	Single Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S801C-K10	2CCS881001R0427	
13	S801C-K13	2CCS881001R0447	
16	S801C-K16	2CCS881001R0467	
20	S801C-K20	2CCS881001R0487	
25	S801C-K25	2CCS881001R0517	
32	S801C-K32	2CCS881001R0537	
40	S801C-K40	2CCS881001R0557	
50	S801C-K50	2CCS881001R0577	
63	S801C-K63	2CCS881001R0597	
80	S801C-K80	2CCS881001R0627	
100	S801C-K100	2CCS881001R0637	
125	S801C-K125	2CCS881001R0647	

Rated Current (A)	Double Pole	Order Code	Price
10	S802C-K10	2CCS882001R0427	
13	S802C-K13	2CCS882001R0447	
16	S802C-K16	2CCS882001R0467	
20	S802C-K20	2CCS882001R0487	
25	S802C-K25	2CCS882001R0517	
32	S802C-K32	2CCS882001R0537	
40	S802C-K40	2CCS882001R0557	
50	S802C-K50	2CCS882001R0577	
63	S802C-K63	2CCS882001R0597	
80	S802C-K80	2CCS882001R0627	
100	S802C-K100	2CCS882001R0637	
125	S802C-K125	2CCS882001R0647	

Rated Current (A)	Triple Pole	Order Code	Price
10	S803C-K10	2CCS883001R0427	
13	S803C-K13	2CCS883001R0447	
16	S803C-K16	2CCS883001R0467	
20	S803C-K20	2CCS883001R0487	
25	S803C-K25	2CCS883001R0517	
32	S803C-K32	2CCS883001R0537	
40	S803C-K40	2CCS883001R0557	
50	S803C-K50	2CCS883001R0577	
63	S803C-K63	2CCS883001R0597	
80	S803C-K80	2CCS883001R0627	
100	S803C-K100	2CCS883001R0637	
125	S803C-K125	2CCS883001R0647	

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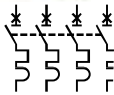
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# System ProM compact

## S800C series - type K 25kA



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### Type K 25kA

Rated Current (A)	Four Pole	Product Hierarchy 2400003	
		Order Code	Price
10	S804C-K10	2CCS884001R0427	
13	S804C-K13	2CCS884001R0447	
16	S804C-K16	2CCS884001R0467	
20	S804C-K20	2CCS884001R0487	
25	S804C-K25	2CCS884001R0517	
32	S804C-K32	2CCS884001R0537	
40	S804C-K40	2CCS884001R0557	
50	S804C-K50	2CCS884001R0577	
63	S804C-K63	2CCS884001R0597	
80	S804C-K80	2CCS884001R0627	
100	S804C-K100	2CCS884001R0637	
125	S804C-K125	2CCS884001R0647	



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# System ProM compact

## F200 AC type - 2 & 4 pole RCCBs



### F200 AC Type RCCBs 2 Pole

AC - BS/EN 61008

Product Hierarchy 2500001

Rated Current	Tripping mA	Part No	Product Hierarchy 2500001	
			Order Code	Price
25	30	F202 AC-25/0.03	2CSF202001R1250	
40		F202 AC-40/0.03	2CSF202001R1400	
63		F202 AC-63/0.03	2CSF202001R1630	
80		F202 AC-80/0.03	2CSF202001R1800	
100		F202 AC-100/0.03	2CSF202001R1900	
25	100	F202 AC-25/0.1	2CSF202001R2250	
40		F202 AC-40/0.1	2CSF202001R2400	
63		F202 AC-63/0.1	2CSF202001R2630	
80		F202 AC-80/0.1	2CSF202001R2800	
100		F202 AC-100/0.1	2CSF202001R2900	
25	300	F202 AC-25/0.3	2CSF202001R3250	
40		F202 AC-40/0.3	2CSF202001R3400	
63		F202 AC-63/0.3	2CSF202001R3630	
80		F202 AC-80/0.3	2CSF202001R3800	
100		F202 AC-100/0.3	2CSF202001R3900	

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### F200 AC Type RCCBs 4 Pole

AC - BS/EN 61008

25	30	F204 AC-25/0.03	2CSF204001R1250	
40		F204 AC-40/0.03	2CSF204001R1400	
63		F204 AC-63/0.03	2CSF204001R1630	
80		F204 AC-80/0.03	2CSF204001R1800	
100		F204 AC-100/0.03	2CSF204001R1900	
125	100	F204 AC-125/0.03	2CSF204001R1950	
25		F204 AC-25/0.1	2CSF204001R2250	
40		F204 AC-40/0.1	2CSF204001R2400	
63		F204 AC-63/0.1	2CSF204001R2630	
80		F204 AC-80/0.1	2CSF204001R2800	
100	F204 AC-100/0.1	2CSF204001R2900		
125	300	F204 AC-125/0.1	2CSF204001R2950	
25		F204 AC-25/0.3	2CSF204001R3250	
40		F204 AC-40/0.3	2CSF204001R3400	
63		F204 AC-63/0.3	2CSF204001R3630	
80		F204 AC-80/0.3	2CSF204001R3800	
100	F204 AC-100/0.3	2CSF204001R3900		
125	F204 AC-125/0.3	2CSF204001R3950		



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# System ProM compact

## F200 A type - 2 & 4 pole RCCBs

2



### F200 A type RCCBs 2 Pole AC - BS/EN 61008

Rated Current	Tripping mA	Part No	Product Hierarchy 2500001	
			Order Code	Price
16	10	F202 A-16/0.01	2CSF202101R0160	
25	30	F202 A-25/0.03	2CSF202101R1250	
40		F202 A-40/0.03	2CSF202101R1400	
63		F202 A-63/0.03	2CSF202101R1630	
80		F202 A-80/0.03	2CSF202101R1800	
100		F202 A-100/0.03	2CSF202101R1900	
25	100	F202 A-25/0.1	2CSF202101R2250	
40		F202 A-40/0.1	2CSF202101R2400	
63		F202 A-63/0.1	2CSF202101R2630	
80		F202 A-80/0.1	2CSF202101R2800	
100		F202 A-100/0.1	2CSF202101R2900	
25	300	F202 A-25/0.3	2CSF202101R3250	
40		F202 A-40/0.3	2CSF202101R3400	
63		F202 A-63/0.3	2CSF202101R3630	
80		F202 A-80/0.3	2CSF202101R3800	
100		F202 A-100/0.3	2CSF202101R3900	

### F200 A type RCCBs 4 Pole AC - BS/EN 61008



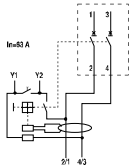
25	30	F204 A-25/0.03	2CSF204101R1250	
40		F204 A-40/0.03	2CSF204101R1400	
63		F204 A-63/0.03	2CSF204101R1630	
80		F204 A-80/0.03	2CSF204101R1800	
100		F204 A-100/0.03	2CSF204101R1900	
125		F204 A-125/0.03	2CSF204101R1950	
25	100	F204 A-25/0.1	2CSF204101R2250	
40		F204 A-40/0.1	2CSF204101R2400	
63		F204 A-63/0.1	2CSF204101R2630	
80		F204 A-80/0.1	2CSF204101R2800	
100		F204 A-100/0.1	2CSF204101R2900	
125		F204 A-125/0.1	2CSF204101R2950	
25	300	F204 A-25/0.3	2CSF204101R3250	
40		F204 A-40/0.3	2CSF204101R3400	
63		F204 A-63/0.3	2CSF204101R3630	
80		F204 A-80/0.3	2CSF204101R3800	
100		F204 A-100/0.3	2CSF204101R3900	
125		F204 A-125/0.3	2CSF204101R3950	



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# System ProM compact

## DDA200 AC type - 2, 3, 4 pole RCD block



### 2 pole - DDA 200 AC type

Rated Current	Tripping mA	Number of poles	Part No	Product Hierarchy 2500001	
				Order Code	Price
16	10	2	DDA202 AC-16/0.01	2CSB202001R0250	
25	30	2	DDA202 AC-25/0.03	2CSB202001R1250	
40			DDA202 AC-40/0.03	2CSB202001R1400	
63			DDA202 AC-63/0.03	2CSB202001R1630	
25	100	2	DDA202 AC-25/0.1	2CSB202001R2250	
40			DDA202 AC-40/0.1	2CSB202001R2400	
63			DDA202 AC-63/0.1	2CSB202001R2630	
25	300	2	DDA204 AC-25/0.3	2CSB202001R3250	
40			DDA204 AC-40/0.3	2CSB202001R3400	
63			DDA204 AC-63/0.3	2CSB202001R3630	

2

### 3 pole - DDA 200 AC type

Rated Current	Tripping mA	Number of poles	Part No	Product Hierarchy 2500001	
				Order Code	Price
25	30	3	DDA203 AC-25/0.03	2CSB203001R1250	
40			DDA203 AC-40/0.03	2CSB203001R1400	
63			DDA203 AC-63/0.03	2CSB203001R1630	
25	100	3	DDA203 AC-25/0.1	2CSB203001R2250	
40			DDA203 AC-40/0.1	2CSB203001R2400	
63			DDA203 AC-63/0.1	2CSB203001R2630	
25	300	3	DDA203 AC-25/0.3	2CSB203001R3250	
40			DDA203 AC-40/0.3	2CSB203001R3400	
63			DDA203 AC-63/0.3	2CSB203001R3630	

### 4 pole - DDA 200 AC type

Rated Current	Tripping mA	Number of poles	Part No	Product Hierarchy 2500001	
				Order Code	Price
25	30	4	DDA204 AC-25/0.03	2CSB204001R1250	
40			DDA204 AC-40/0.03	2CSB204001R1400	
63			DDA204 AC-63/0.03	2CSB204001R1630	
25	100	4	DDA204 AC-25/0.1	2CSB204001R2250	
40			DDA204 AC-40/0.1	2CSB204001R2400	
63			DDA204 AC-63/0.1	2CSB204001R2630	
25	300	4	DDA204 AC-25/0.3	2CSB204001R3250	
40			DDA204 AC-40/0.3	2CSB204001R3400	
63			DDA204 AC-63/0.3	2CSB204001R3630	

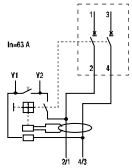


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# System ProM compact

## DDA200 A type - 2, 3, 4 pole RCD block

2



### 2 pole - DDA 200 A type

Rated Current	Tripping mA	Number of poles	Part No	Product Hierarchy 2500001		
				Order Code	Price	
16	10	2	DDA202 A-16/0.01	2CSB202101R0250		
25			DDA202 A-25/0.03	2CSB202101R1250		
40			2	DDA202 A-40/0.03	2CSB202101R1400	
63				DDA202 A-63/0.03	2CSB202101R1630	
25	100	2	DDA202 A-25/0.1	2CSB202101R2250		
40			DDA202 A-40/0.1	2CSB202101R2400		
63			DDA202 A-63/0.1	2CSB202101R2630		
25	300	2	DDA204 A-25/0.3	2CSB202101R3250		
40			DDA204 A-40/0.3	2CSB202101R3400		
63			DDA204 A-63/0.3	2CSB202101R3630		

### 3 pole - DDA 200 A type

Rated Current	Tripping mA	Number of poles	Part No	Product Hierarchy 2500001	
				Order Code	Price
25	30	3	DDA203 A-25/0.03	2CSB203101R1250	
40			DDA203 A-40/0.03	2CSB203101R1400	
63			DDA203 A-63/0.03	2CSB203101R1630	
25	100	3	DDA203 A-25/0.1	2CSB203101R2250	
40			DDA203 A-40/0.1	2CSB203101R2400	
63			DDA203 A-63/0.1	2CSB203101R2630	
25	300	3	DDA203 A-25/0.3	2CSB203101R3250	
40			DDA203 A-40/0.3	2CSB203101R3400	
63			DDA203 A-63/0.3	2CSB203101R3630	

### 4 pole - DDA 200 A type

Rated Current	Tripping mA	Number of poles	Part No	Product Hierarchy 2500001	
				Order Code	Price
25	30	4	DDA204 A-25/0.03	2CSB204101R1250	
40			DDA204 A-40/0.03	2CSB204101R1400	
63			DDA204 A-63/0.03	2CSB204101R1630	
25	100	4	DDA204 A-25/0.1	2CSB204101R2250	
40			DDA204 A-40/0.1	2CSB204101R2400	
63			DDA204 A-63/0.1	2CSB204101R2630	
25	300	4	DDA204 A-25/0.3	2CSB204101R3250	
40			DDA204 A-40/0.3	2CSB204101R3400	
63			DDA204 A-63/0.3	2CSB204101R3630	



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# System ProM compact

## DS201M AC type - 1+N pole RCBO

### 1+N - Type B 10kA

1+N - Type B 10kA				Product Hierarchy 2500001	
Rated Current	Tripping mA	Number of poles	Part No	Order Code	Price
6	30	1+N	DS201M-B6 AC30	2CSR275040R1065	
10			DS201M-B10 AC30	2CSR275040R1105	
13			DS201M-B13 AC30	2CSR275040R1135	
16			DS201M-B16 AC30	2CSR275040R1165	
20			DS201M-B20 AC30	2CSR275040R1205	
25			DS201M-B25 AC30	2CSR275040R1255	
32			DS201M-B32 AC30	2CSR275040R1325	
40			DS201M-B40 AC30	2CSR275040R1405	
6			100	1+N	DS201M-B6 AC100
10	DS201M-B10 AC100	2CSR275040R2105			
13	DS201M-B13 AC100	2CSR275040R2135			
16	DS201M-B16 AC100	2CSR275040R2165			
20	DS201M-B20 AC100	2CSR275040R2205			
25	DS201M-B25 AC100	2CSR275040R2255			
32	DS201M-B32 AC100	2CSR275040R2325			
40	DS201M-B40 AC100	2CSR275040R2405			
6	300	1+N			DS201M-B6 AC300
10			DS201M-B10 AC300	2CSR275040R3105	
13			DS201M-B13 AC300	2CSR275040R3135	
16			DS201M-B16 AC300	2CSR275040R3165	
20			DS201M-B20 AC300	2CSR275040R3205	
25			DS201M-B25 AC300	2CSR275040R3255	
32			DS201M-B32 AC300	2CSR275040R3325	
40			DS201M-B40 AC300	2CSR275040R3405	

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### 1+N - Type C 10kA

6	30	1+N	DS201M-C6 AC30	2CSR275040R1064	
10			DS201M-C10 AC30	2CSR275040R1104	
13			DS201M-C13 AC30	2CSR275040R1134	
16			DS201M-C16 AC30	2CSR275040R1164	
20			DS201M-C20 AC30	2CSR275040R1204	
25			DS201M-C25 AC30	2CSR275040R1254	
32			DS201M-C32 AC30	2CSR275040R1324	
40			DS201M-C40 AC30	2CSR275040R1404	
6			100	1+N	DS201M-C6 AC100
10	DS201M-C10 AC100	2CSR275040R2104			
13	DS201M-C13 AC100	2CSR275040R2134			
16	DS201M-C16 AC100	2CSR275040R2164			
20	DS201M-C20 AC100	2CSR275040R2204			
25	DS201M-C25 AC100	2CSR275040R2254			
32	DS201M-C32 AC100	2CSR275040R2324			
40	DS201M-C40 AC100	2CSR275040R2404			
6	300	1+N			DS201M-C6 AC300
10			DS201M-C10 AC300	2CSR275040R3104	
13			DS201M-C13 AC300	2CSR275040R3134	
16			DS201M-C16 AC300	2CSR275040R3164	
20			DS201M-C20 AC300	2CSR275040R3204	
25			DS201M-C25 AC300	2CSR275040R3254	
32			DS201M-C32 AC300	2CSR275040R3324	
40			DS201M-C40 AC300	2CSR275040R3404	



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# System ProM compact

## DS 201M-B A type - 1+N pole RCBO

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1+N - Type B 10kA				Product Hierarchy 2500001	
Rated Current	Tripping mA	Number of poles	Part No	Order Code	Price
10	10	1+N	DS201M-B10 A10	2CSR275140R0105	
16			DS201M-B16 A10	2CSR275140R0165	
6	30	1+N	DS201M-B6 A30	2CSR275140R1065	
10			DS201M-B10 A30	2CSR275140R1105	
13			DS201M-B13 A30	2CSR275140R1135	
16			DS201M-B16 A30	2CSR275140R1165	
20			DS201M-B20 A30	2CSR275140R1205	
25			DS201M-B25 A30	2CSR275140R1255	
32			DS201M-B32 A30	2CSR275140R1325	
40			DS201M-B40 A30	2CSR275140R1405	
6	100	1+N	DS201M-B6 A100	2CSR275140R2065	
10			DS201M-B10 A100	2CSR275140R2105	
13			DS201M-B13 A100	2CSR275140R2135	
16			DS201M-B16 A100	2CSR275140R2165	
20			DS201M-B20 A100	2CSR275140R2205	
25			DS201M-B25 A100	2CSR275140R2255	
32			DS201M-B32 A100	2CSR275140R2325	
40			DS201M-B40 A100	2CSR275140R2405	
6	300	1+N	DS201M-B6 A300	2CSR275140R3065	
10			DS201M-B10 A300	2CSR275140R3105	
13			DS201M-B13 A300	2CSR275140R3135	
16			DS201M-B16 A300	2CSR275140R3165	
20			DS201M-B20 A300	2CSR275140R3205	
25			DS201M-B25 A300	2CSR275140R3255	
32			DS201M-B32 A300	2CSR275140R3325	
40			DS201M-B40 A300	2CSR275140R3405	



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# System ProM compact

## DS 201M-C A type - 1+N pole RCBO

1+N - Type C 10kA				Product Hierarchy 2500001	
Rated Current	Tripping mA	Number of poles	Part No	Order Code	Price
10	10	1+N	DS201M-C10 A10	2CSR275140R0104	
16			DS201M-C16 A10	2CSR275140R0164	
6	30	1+N	DS201M-C6 A30	2CSR275140R1064	
10			DS201M-C10 A30	2CSR275140R1104	
13			DS201M-C13 A30	2CSR275140R1134	
16			DS201M-C16 A30	2CSR275140R1164	
20			DS201M-C20 A30	2CSR275140R1204	
25			DS201M-C25 A30	2CSR275140R1254	
32			DS201M-C32 A30	2CSR275140R1324	
40			DS201M-C40 A30	2CSR275140R1404	
6	100	1+N	DS201M-C6 A100	2CSR275140R2064	
10			DS201M-C10 A100	2CSR275140R2104	
13			DS201M-C13 A100	2CSR275140R2134	
16			DS201M-C16 A100	2CSR275140R2164	
20			DS201M-C20 A100	2CSR275140R2204	
25			DS201M-C25 A100	2CSR275140R2254	
32			DS201M-C32 A100	2CSR275140R2324	
40			DS201M-C40 A100	2CSR275140R2404	
6	300	1+N	DS201M-C6 A300	2CSR275140R3064	
10			DS201M-C10 A300	2CSR275140R3104	
13			DS201M-C13 A300	2CSR275140R3134	
16			DS201M-C16 A300	2CSR275140R3164	
20			DS201M-C20 A300	2CSR275140R3204	
25			DS201M-C25 A300	2CSR275140R3254	
32			DS201M-C32 A300	2CSR275140R3324	
40			DS201M-C40 AC300	2CSR275140R3404	

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# System ProM compact

## DDA800 A\_ type - 2, 3, 4 RCBO

2

DDA800 50kA					Product Hierarchy 2500001		
Number of Poles	Type	Rating In A	Tripping mA	Part No	Order Code	Price	
2	A	63	30	DDA802A-63/0,03AP-R	2CSB802401R1630		
				DDA802A-63/0,03	2CSB802101R1630		
	AC		300	DDA802AC-63/0,3	2CSB802001R3630		
	AS			DDA802AS-63/0,3	2CSB802201R3630		
	A			DDA802A-63/0,3	2CSB802101R3630		
	AS			500	DDA802A-63/0,5	2CSB802101R4630	
	1000		DDA802AS-63/1	2CSB802201R5630			
3	A		63	30	DDA803A-63/0,03AP-R	2CSB803401R1630	
					DDA803A-63/0,03	2CSB803101R1630	
	AC				DDA803AC-63/0,03	2CSB803001R1630	
	A			300	DDA803A-63/0,3	2CSB803101R3630	
	AC				DDA803AC-63/0,3	2CSB803001R3630	
	AS	DDA803AS-63/0,3			2CSB803201R3630		
A	500	DDA803A-63/0,5		2CSB803101R4630			
AS	1000	DDA803AS-63/1		2CSB803201R5630			
4	A	63		30	DDA804A-63/0,03AP-R	2CSB804401R1630	
					DDA804A-63/0,03	2CSB804101R1630	
	AC				DDA804AC-63/0,03	2CSB804001R1630	
	A			300	DDA804A-63/0,3	2CSB804101R3630	
	AC		DDA804AC-63/0,3		2CSB804001R3630		
	AS		DDA804AS-63/0,3		2CSB804201R3630		
	A		500	DDA804A-63/0,5	2CSB804101R4630		
	AS		1000	DDA804AS-63/1	2CSB804201R5630		
A	100		300	DDA804 A-100/0,3	2CSB804101R3000		



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# System ProM compact DS271 AC Type RCBOs



## DS271 AC type B 10kA

DS271 AC type B 10kA			Product Hierarchy 2500002	
Current (A)	Sensitivity	Type B - 10kA	Order Code	Price
6	10mA	DS271 AC-B6/0.01	2CSR175092R0065	
10		DS271 AC-B10/0.01	2CSR175092R0105	
16		DS271 AC-B16/0.01	2CSR175092R0165	
20		DS271 AC-B20/0.01	2CSR175092R0205	
25		DS271 AC-B25/0.01	2CSR175092R0255	
32		DS271 AC-B32/0.01	2CSR175092R0325	
6	30mA	DS271 AC-B6/0.03	2CSR175092R1065	
10		DS271 AC-B10/0.03	2CSR175092R1105	
16		DS271 AC-B16/0.03	2CSR175092R1165	
20		DS271 AC-B20/0.03	2CSR175092R1205	
25		DS271 AC-B25/0.03	2CSR175092R1255	
32		DS271 AC-B32/0.03	2CSR175092R1325	

2

## DS271 AC type C 10kA

6	10mA	DS271 AC-C6/0.01	2CSR175092R0064	
10		DS271 AC-C10/0.01	2CSR175092R0104	
16		DS271 AC-C16/0.01	2CSR175092R0164	
20		DS271 AC-C20/0.01	2CSR175092R0204	
25		DS271 AC-C25/0.01	2CSR175092R0254	
32		DS271 AC-C32/0.01	2CSR175092R0324	
6	30mA	DS271 AC-C6/0.03	2CSR175092R1064	
10		DS271 AC-C10/0.03	2CSR175092R1104	
16		DS271 AC-C16/0.03	2CSR175092R1164	
20		DS271 AC-C20/0.03	2CSR175092R1204	
25		DS271 AC-C25/0.03	2CSR175092R1254	
32		DS271 AC-C32/0.03	2CSR175092R1324	
6	100mA	DS271 AC-C6/0.1	2CSR175092R2064	
10		DS271 AC-C10/0.1	2CSR175092R2104	
16		DS271 AC-C16/0.1	2CSR175092R2164	
20		DS271 AC-C20/0.1	2CSR175092R2204	
25		DS271 AC-C25/0.1	2CSR175092R2254	
32		DS271 AC-C32/0.1	2CSR175092R2324	
6	300mA	DS271 AC-C6/0.3	2CSR175092R3064	
10		DS271 AC-C10/0.3	2CSR175092R3104	
16		DS271 AC-C16/0.3	2CSR175092R3164	
20		DS271 AC-C20/0.3	2CSR175092R3204	
25		DS271 AC-C25/0.3	2CSR175092R3254	
32		DS271 AC-C32/0.3	2CSR175092R3324	



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# System ProM compact DS271 A Type RCBOs

2



## DS271 A type B 10kA

DS271 A type B 10kA			Product Hierarchy 2500002	
Current (A)	Sensitivity	Type B - 10k A	Order Code	Price
6	10mA	DS271 A-B6/0.01	2CSR175192R0065	
10		DS271 A-B10/0.01	2CSR175192R0105	
16		DS271 A-B16/0.01	2CSR175192R0165	
20		DS271 A-B20/0.01	2CSR175192R0205	
25		DS271 A-B25/0.01	2CSR175192R0255	
32		DS271 A-B32/0.01	2CSR175192R0325	
6	30mA	DS271 A-B6/0.03	2CSR175192R1065	
10		DS271 A-B10/0.03	2CSR175192R1105	
16		DS271 A-B16/0.03	2CSR175192R1165	
20		DS271 A-B20/0.03	2CSR175192R1205	
25		DS271 A-B25/0.03	2CSR175192R1255	
32		DS271 A-B32/0.03	2CSR175192R1325	

## DS271 A type C 10kA

6	10mA	DS271 A-C6/0.01	2CSR175192R0064	
10		DS271 A-C10/0.01	2CSR175192R0104	
16		DS271 A-C16/0.01	2CSR175192R0164	
20		DS271 A-C20/0.01	2CSR175192R0204	
25		DS271 A-C25/0.01	2CSR175192R0254	
32		DS271 A-C32/0.01	2CSR175192R0324	
6	30mA	DS271 A-C6/0.03	2CSR175192R1064	
10		DS271 A-C10/0.03	2CSR175192R1104	
16		DS271 A-C16/0.03	2CSR175192R1164	
20		DS271 A-C20/0.03	2CSR175192R1204	
25		DS271 A-C25/0.03	2CSR175192R1254	
32		DS271 A-C32/0.03	2CSR175192R1324	
6	100mA	DS271 A-C6/0.1	2CSR175192R2064	
10		DS271 A-C10/0.1	2CSR175192R2104	
16		DS271 A-C16/0.1	2CSR175192R2164	
20		DS271 A-C20/0.1	2CSR175192R2204	
25		DS271 A-C25/0.1	2CSR175192R2254	
32		DS271 A-C32/0.1	2CSR175192R2324	
6	300mA	DS271 A-C6/0.3	2CSR175192R3064	
10		DS271 A-C10/0.3	2CSR175192R3104	
16		DS271 A-C16/0.3	2CSR175192R3164	
20		DS271 A-C20/0.3	2CSR175192R3204	
25		DS271 A-C25/0.3	2CSR175192R3254	
32		DS271 A-C32/0.3	2CSR175192R3324	



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# System ProM compact

## Accessories S200, SN201, F200, DS200



### Accessories

Product Hierarchy 2400002

Description	Suitable for:	Part No	Product Hierarchy 2400002	
			Order Code	Price
<b>Auxiliary contacts</b>				
Aux switch 1 c/o	S200, SN201, F200 DS200	S2C-S/H6R	2CDS200922R0001	
Aux contact 1 c/o		S2C-H6R	2CDS200912R0001	
Aux contact 1no/1nc		S2C-H6-11R	2CDS200946R0001	
Aux contact 2no		S2C-H6-20R	2CDS200946R0002	
Aux contact 2nc		S2C-H6-02R	2CDS200946R0003	
Aux contact 1nc	S200, S200M, S200P	S2C-H01	2CDS200970R0001	
Aux contact 1no		S2C-H10	2CDS200970R0002	
Aux contact 1nc (15 pieces)	S200, S200M, S200P	S2C-H01 15x	2CDS200970R0011	
Aux contact 1no (15 pieces)		S2C-H10 15x	2CDS200970R0012	
Signal contact 1no/1nc	SN201	SN201-S	2CDS200924R0001	
<b>Shunt trips</b>				
AC/DC 12-60v	All	S2C-A1	2CDS200909R0001	
AC110-415v DC110-250v		S2C-A2	2CDS200909R0002	
<b>Under voltage release</b>				
12-DC	All	S2C-UA 12-DC	2CSS200911R0001	
24AC		S2C-UA 24AC	2CSS200911R0002	
24-DC		S2C-UA 24-DC	2CSS200911R0007	
48AC		S2C-UA 48AC	2CSS200911R0003	
48DC		S2C-UA 48DC	2CSS200911R0008	
110AC		S2C-UA 110AC	2CSS200911R0004	
110DC		S2C-UA 110DC	2CSS200911R0009	
230AC		S2C-UA 230AC	2CSS200911R0005	
230DC		S2C-UA 230DC	2CSS200911R0010	
440AC		S2C-UA 440AC	2CSS200911R0006	
<b>Overvoltage release</b>				
275AC max tripping voltage	All	S2C-OVP1	2CSS200910R0005	
290AC max tripping voltage		S2C-OVP2	2CSS200993R0005	
<b>Motor operator</b>				
Motor operator	2/3 pole S200 MCB	S2C-CM2/3	2CSS203997R0013	
<b>Auto-reclosing unit</b>				
Auto re-closing unit	2/4 F200 RCCB	F2C-ARI	2CSR200996R0013	

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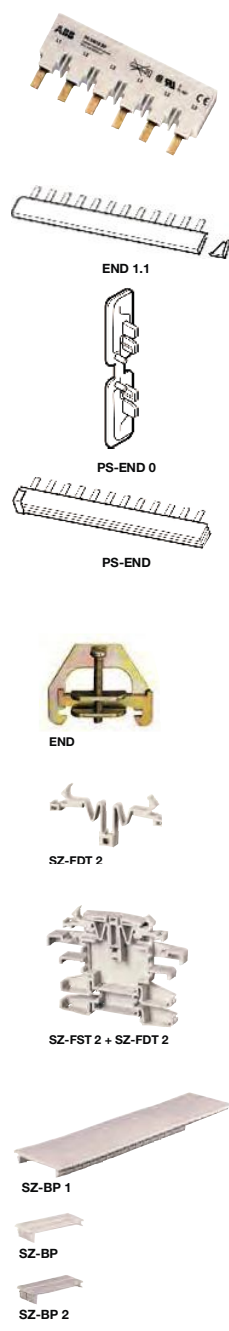


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# System ProM compact

## Accessories S200, SN201, F200, DS200

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Accessories					Product Hierarchy 2400002	
	No of pins	Phases	mm <sup>2</sup>	Part No	Order Code	Price
<b>Busbars</b>						
Pin distance 17.6mm end caps PS-END	58	2	10	PS2/58	2CDL220001R1058	
			16	PS2/58/16	2CDL220001R1658	
2 pole + aux end caps PS-END	48	2	16	PS2/48/16H	2CDL220001R1648	
Pin distance 17.6mm end caps PS-END	60	3	16	PS3/60/16	2CDL230001R1660	
3 pole + aux end caps PS-END	48	3	16	PS3/48/16H	2CDL230001R1640	
Pin distance 17.6mm end caps PS-END	60	4	16	PS4/60/16	2CDL240101R1660	
<b>Pre assembled busbars (not to be cut)</b>						
1-phase busbars pin distance 17.6mm	6	1	16	PS1/6/16BP	2CDL210489R1606	
	12			PS1/12/16BP	2CDL210489R1612	
	18			PS1/18/16BP	2CDL210489R1618	
2-phase busbars pin distance 17.6mm	6	2	16	PS2/6/16BP	2CDL220489R1606	
	12			PS2/12/16BP	2CDL220489R1612	
	18			PS2/18/16BP	2CDL220489R1618	
3-phase busbars pin distance 17.6mm	6	3	16	PS3/6/16BP	2CDL230489R1606	
	12			PS3/12/16BP	2CDL230489R1612	
	18			PS3/18/16BP	2CDL230489R1618	
<b>Busbars suitable for cutting</b>						
1-phase busbars pin distance 17.6mm	60	1	16	PS1/60	2CDL210001R1060	
1-phase busbars connection 1 pole + aux	38			PS1/38/16H	2CDL210001R1638	
<b>End caps</b>						
				END 1.1	2CDL200011R0011	
				PS-END 0	2CDL200011R0004	
				PS-END	2CDL200011R0001	
				PS-END 1	2CDL200011R0002	
				PS-END SP	2CDL200110R0001	
				PS-END 1 SP	2CDL200110R0002	
				PS-END 3	2CDL200001R3001	
				PS-END 3.1	2CDL200001R3002	
				PSB-END 3	GHVO361325R0001	
				PSB-END 4	GHVO361325R0002	
				Protection caps (5 pieces)	SZ-BSK	2CDL200001R0011
<b>Feeder terminals</b>						
			6-35	SZ-ESK 2	2CDL200001R3501	
			6-50	SZ-ESK 3	2CDL200003R5001	
				SZ-ESK 3S	2CDL200003R5003	



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# System ProM compact

## Accessories S800



### Accessories

Product Hierarchy 2400002

Description	Part No	Product Hierarchy 2400002	
		Order Code	Price
<b>Signal contacts</b>			
Aux contact	S800-AUX	2CCS800900R0011	
Aux/signal contact	S800-AUX/ALT	2CCS800900R0021	
Separating neutral 63A	S800-NT	2CCS800900R0061	
<b>Shunt trips</b>			
12v AC/DC	S800-SOR12	2CCS800900R0191	
24v AC/DC	S800-SOR24	2CCS800900R0191	
48...130v AC/DC	S800-SOR130	2CCS800900R0221	
110...250v AC/DC	S800-SOR250	2CCS800900R0211	
220...400v AC/DC	S800-SOR400	2CCS800900R0231	
<b>Under voltage release</b>			
24...36v AC/DC	S800-UVR36	2CCS800900R0241	
48...60v AC/DC	S800-UVR60	2CCS800900R0251	
110...130v AC/DC	S800-UVR130	2CCS800900R0261	
220...250v AC/DC	S800-UVR250	2CCS800900R0271	
<b>Handles</b>			
Rotary drive	S800-RD	2CCS800900R0041	
Black rotary handle	S800-RHE-H	1SDA060150R1	
Red/emergency rotary handle	S800-RHE-EM	1SDA060151R1	
Axial extension 500mm for RHE	S800-RHE-S	1SDA060179R1	
<b>General accessories</b>			
Intermediate piece 9mm	S800-IP9	2CCS800900R0031	
Padlock device with 4mm hasp	S800-PLL	2CCS800900R0051	
UL locking device	S800U-PPL	2CCS800017R0001	
Busbar 250A	S803-BB250	2CCS800900R0071	

2



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2CSC400002D0208

# System ProM compact

## Digital energy meters



DCB13000

2

### Digital Meters

Description	Part No	Product Hierarchy 2700001	
		Order Code	Price
ODIN Single Phase, Direct Connected	OD1065	2CMA131040R1000	
ODIN Single Phase, Pulse Output, Direct Connected	OD1365	2CMA131041R1000	
DELTA Single Phase - 2 Tariff with Pulse Output	FBB11205	2CMA180894R1000	
DELTA Single Phase - 2 Tariff	FBU11205	2CMA180893R1000	
ODIN 3 Phase + N - 1 Pulse Output, Direct Connected	OD4165	2CMA131024R1000	
ODIN 3 Phase + N - 1 Pulse Output, CT Connected	OD4110	2CMA131025R1000	
DELTA Plus 3 phase + N - 1 Tariff with Pulse Output	DAB13000	2CMA180806R1000	
DELTA Max 3 phase + N - 2 Tariff with Internal Clock and THD	DEB13005	2CMA139495R1000	
DELTA Max 3 phase + N - 2 Tariff with Time Dependant Functions and THD	DEB13007	2CMA139497R1000	

### Communication Adaptors

Description	Part No	Product Hierarchy 2700001	
		Order Code	Price
LON PLC A-Band Adaptor	CAL 06000	2CMA137100R1000	
Ethernet Adaptor	CEM 05100	2CMA137121R1000	
M-bus (Meter Bus) Adaptor	CTM 04000	2CMA137090R1000	
LON PLC C-Band Adaptor	CCL 06000	2CMA137103R1000	
RS232 Adaptor	CRM04000	2CMA137091R1000	



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# System ProM compact

## Modular devices



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### Timers

	Product Hierarchy 2700001	
	Order Code	Price
Analogue AT3-7R timer 7 day c/w reserve	2CSM204245R0601	
Analogue AT3-R daily timer with reserve	2CSM204235R0601	
Digital DT1 1 channel weekly time switch	2CSM204255R0611	

### Isolators

E202/100R 2P 100A	2CDE282001R0100	
E202/125R 2P 125A	2CDE282001R0125	
E202/63R 2P 63A	2CDE282001R0063	
E203/100R 3P 100A	2CDE283001R0100	
E203/125R 3P 125A	2CDE283001R0125	
E204/125R 4P 125A	2CDE284001R0125	
E204/63R 4P 63A	2CDE284001R0063	

### Contactors

EH04-20 ESB Aux 2no	GHE3401321R0001	
ESB20-02 Contactor 2nc 24V	GHE3211202R0001	
ESB24-04 Contactor 4no 24V	GHE3291202R0001	
ESB-DIS Distance Piece	GHE3201902R0001	

### Fuseholders

E91/32 SP Fuseholder 32A 10.3x38	2CSM200923R1801	
E931/125 E931/125A Fuse Carrier	2CSM371710R1801	

### Toroidal Transformers

TR2 60mm	2CSG060100R1211	
TR3 80mm	2CSG080100R1211	
TR4 110mm	2CSG110100R1211	

### Twilight Switch

TW1	2CSM204135R1341	
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### Surge Suppressors

	Product Hierarchy 6000002	
	Order Code	Price
OVR T1 3N 255 25TS Type1 3P&N	2CTB815101R0700	
OVR T2 3N 40 275 SPTS Type 2 3P&N	2CTB803953R0200	





# Power Breakers



## Tmax MCCBs

- Overview ..... 3/2
- Tmax XT1-XT4 ..... 3/6
- Tmax T5-T7..... 3/12
- Tmax switch disconnectors ..... 3/18
- Tmax accessories..... 3/20

## Emax ACBs

- Emax X1 ACBs and X1 disconnectors..... 3/35
- Emax E1 to E6 automatic ACBs..... 3/36
- E4/f 100% 4th pole automatic ACBs..... 3/43
- E1-E6 switch disconnectors ..... 3/45
- E4/f 100% 4th pole switch disconnectors ..... 3/47
- Fixed parts ..... 3/48
- Emax accessories ..... 3/50

3



Tmax MCCBs



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Emax ACBs



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1SDC200009D0203

# New Tmax XT XTraordinarily powerful

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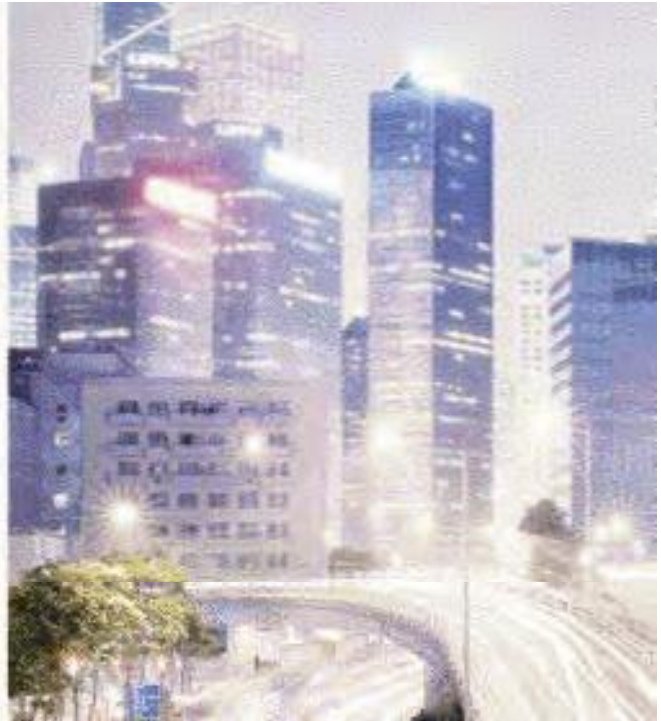


There are 4 frame sizes in the Tmax XT range

- the small XT1 up to 160A
- the high-performing XT2 up to 160A
- the reliable XT3 up to 250A
- the powerful XT4 up to 250A.



# Tmax XT1 to XT3 XTraordinarily reliable



3

The new Tmax XT1 and XT3 are XTraordinary reliable. They are circuit-breakers that excell in industrial, marine and commercial installations. Available in the fixed and plug-in, three-pole and four-pole versions with a variety protection trip units.

Tmax XT1 and XT3 can be used in installations for large-scale distribution, in hospitals and in all the service sector applications which require great reliability. The Tmax XT3 circuit-breakers can be used for motor protection, for generator protection and as switch-disconnectors.





# Tmax XT2 to XT4

## XTraordinarily advanced

3



You are looking at two even more extraordinary circuit breakers. Tmax XT2 and XT4 which offer advanced performances up to 150kA and functionality that can be used in the most technologically advanced installations heavy industry, metallurgy and marine, in the fixed, plug-in and withdrawable versions with both thermomagnetic and electronic interchangeable trip units.

- the Ekip Display, to be applied onto the front of the electronic trip unit for simpler setting and for better reading of information
- the Ekip LED Meter, a device to be installed on the front of the trip unit to simplify current readings
- the Ekip TT, the new trip test unit
- the Ekip T&P, the extraordinary testing and programming unit.



# Tmax accessories

## XTraordinarily versatile

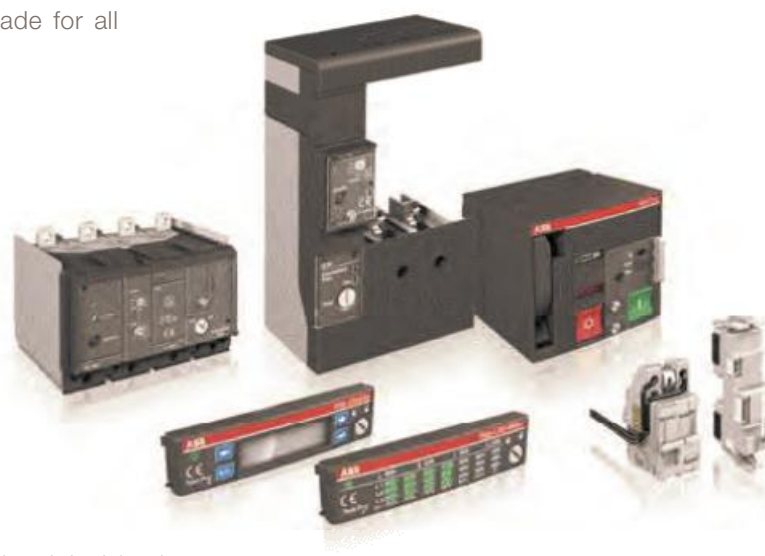


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Welcome to the world of opportunities offered by the brand-new and standardised range of accessories made for all the frames in the Tmax XT family.

XTraordinary versatile range of accessories with simple installation

- magnetic only releases
- electronic releases
- shunt trips
- under voltage release
- time delayed UVR
- signal contacts, trip contacts, position contacts
- motor operators
- various terminal arrangements
- rotary handles
- keylocks for circuit breaker, handles, motor operator, position of circuit breaker



# Power distribution circuit breakers

## Tmax XT1 - C, N, S thermomagnetic



### Ratings @ 400V

	Icu	Ics
XT1C	25kA	100%
XT1N	36kA	75%
XT1S	50kA	75%

### Protection types available

Type	Settings	
	Ith	Im
Standard Distribution (3&4 pole)	70-100%	10xIth (*)

\*Subject to a minimum value of 450A

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

## Thermomagnetic TMA

3

Model	Current [A]		Product Hierarchy 3000004			
	Ith/In	I3	3 Pole	Price	4 Pole	Price
XT1C	XT1C160R25	450A	1SDA067391R1		1SDA067400R1	
	XT1C160R32		1SDA067392R1		1SDA067401R1	
	XT1C160R40		1SDA067393R1		1SDA067402R1	
	XT1C160R50	500A	1SDA067394R1		1SDA067403R1	
	XT1C160R63	630A	1SDA067395R1		1SDA067404R1	
	XT1C160R80	800A	1SDA067396R1		1SDA067405R1	
	XT1C160R100	1000A	1SDA067397R1		1SDA067406R1	
	XT1C160R125	1250A	1SDA067398R1		1SDA067409R1	
XT1C160R160	1600A	1SDA067399R1		1SDA067410R1		
XT1N	XT1N160R32	450A	1SDA067411R1		1SDA067419R1	
	XT1N160R40		1SDA067412R1		1SDA067470R1	
	XT1N160R50	500A	1SDA067413R1		1SDA067421R1	
	XT1N160R63	630A	1SDA067414R1		1SDA067422R1	
	XT1N160R80	800A	1SDA067415R1		1SDA067423R1	
	XT1N160R100	1000A	1SDA067416R1		1SDA067424R1	
	XT1N160R125	1250A	1SDA067417R1		1SDA067427R1	
	XT1N160R160	1600A	1SDA067418R1		1SDA067428R1	
XT1S	XT1S160R50	500A	1SDA067431R1		1SDA067439R1	
	XT1S160R63	630A	1SDA067432R1		1SDA067440R1	
	XT1S160R80	800A	1SDA067433R1		1SDA067441R1	
	XT1S160R100	1000A	1SDA067434R1		1SDA067442R1	
	XT1S160R125	1250A	1SDA067435R1		1SDA067445R1	
	XT1S160R160	1600A	1SDA067436R1		1SDA067446R1	



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1SDC210015D0204



# Power distribution circuit breakers

## Tmax XT2 - N, S, H thermomagnetic



### Ratings @ 400V

	Icu	Ics
XT2N	36kA	100%
XT2S	50kA	100%
XT2H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Thermomagnetic TMA

Model	Current [A]		Product Hierarchy 3000004			
	Ith/In	I3	3 Pole	Price	4 Pole	Price
XT2N	160R32	320A	1SDA067013R1		1SDA067034R1	
	160R40	400A	1SDA067014R1		1SDA067035R1	
	160R50	500A	1SDA067015R1		1SDA067036R1	
	160R63	630A	1SDA067016R1		1SDA067037R1	
	160R80	800A	1SDA067017R1		1SDA067038R1	
	160R100	1000A	1SDA067018R1		1SDA067039R1	
	160R125	1250A	1SDA067019R1		1SDA067042R1	
	160R160	1600A	1SDA067020R1		1SDA067043R1	
XT2S	160R32	320A	1SDA067553R1		1SDA067574R1	
	160R40	400A	1SDA067554R1		1SDA067575R1	
	160R50	500A	1SDA067555R1		1SDA067576R1	
	160R63	630A	1SDA067556R1		1SDA067577R1	
	160R80	800A	1SDA067557R1		1SDA067578R1	
	160R100	1000A	1SDA067558R1		1SDA067579R1	
	160R125	1250A	1SDA067559R1		1SDA067582R1	
	160R160	1600A	1SDA067560R1		1SDA067583R1	
XT2H	160R32	320A	1SDA067597R1		1SDA067618R1	
	160R40	400A	1SDA067598R1		1SDA067619R1	
	160R50	500A	1SDA067599R1		1SDA067620R1	
	160R63	630A	1SDA067600R1		1SDA067621R1	
	160R80	800A	1SDA067601R1		1SDA067622R1	
	160R100	1000A	1SDA067602R1		1SDA067623R1	
	160R125	1250A	1SDA067603R1		1SDA067626R1	
	160R160	1600A	1SDA067604R1		1SDA067627R1	

3

# Power distribution circuit breakers

## Tmax XT2 - N, S, H electronic releases



### Ratings @ 400V

	Icu	Ics
XT2N	36kA	100%
XT2S	50kA	100%
XT2H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
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### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Electronic Release

3

Model	Type	In	Product Hierarchy 3000004			
			3 Pole	Price	4 Pole	Price
XT2N	160 Ekip LS/I	63A	1SDA067056R1		1SDA067092R1	
	160 Ekip LS/I	100A	1SDA067057R1		1SDA067093R1	
	160 Ekip LS/I	160A	1SDA067058R1		1SDA067095R1	
XT2S	160 Ekip LS/I	63A	1SDA067802R1		1SDA067835R1	
	160 Ekip LS/I	100A	1SDA067803R1		1SDA067836R1	
	160 Ekip LS/I	160A	1SDA067804R1		1SDA067838R1	
XT2H	160 Ekip LS/I	63A	1SDA067859R1		1SDA067892R1	
	160 Ekip LS/I	100A	1SDA067860R1		1SDA067893R1	
	160 Ekip LS/I	160A	1SDA067861R1		1SDA067895R1	

# Power distribution circuit breakers

## Tmax XT3 - N, S thermomagnetic & magnetic only



### Ratings @ 400V

	Icu	Ics
XT3N	36kA	75%
XT3S	50kA	50%



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**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Thermomagnetic TMA

Model	Current [A]		Product Hierarchy 3000004			
	Ith/In	I3	3 Pole	Price	4 Pole	Price
XT3N	250R63	630A	1SDA068053R1		1SDA068060R1	
	250R80	800A	1SDA068054R1		1SDA068061R1	
	250R100	1000A	1SDA068055R1		1SDA068062R1	
	250R125	1250A	1SDA068056R1		1SDA068067R1	
	250R160	1600A	1SDA068057R1		1SDA068068R1	
	250R200	2000A	1SDA068058R1		1SDA068069R1	
	250R250	2500A	1SDA068059R1		1SDA068070R1	
XT3S	250R63	630A	1SDA068215R1		1SDA068222R1	
	250R80	800A	1SDA068216R1		1SDA068223R1	
	250R100	1000A	1SDA068217R1		1SDA068224R1	
	250R125	1250A	1SDA068221R1		1SDA068229R1	
	250R160	1600A	1SDA068219R1		1SDA068230R1	
	250R200	2000A	1SDA068220R1		1SDA068231R1	
	250R250	2500A	1SDA068221R1		1SDA068232R1	

3

# Power distribution circuit breakers

## Tmax XT4 - N, S, H thermomagnetic & magnetic only



### Ratings @ 400V

	Icu	Ics
XT4N	36kA	100%
XT4S	50kA	100%
XT4H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

**3**

### Thermomagnetic TMA Magnetic Only TMD

Model	Current [A]			Product Hierarchy 3000004				
	Ith/In	I3	%N	3 Pole	Price	4 Pole	Price	
XT4N TMD	160R20	300A	100	1SDA068080R1		1SDA068094R1		
	160R32	320A		1SDA068082R1		1SDA068096R1		
	160R50	500A		1SDA068084R1		1SDA068098R1		
	160R80	800A		1SDA068086R1		1SDA068100R1		
XT4N TMA	160R100	1000A		1SDA068087R1		1SDA068101R1		
	160R125	1250A		1SDA068088R1		1SDA068107R1		
	160R160	1600A		1SDA068089R1		1SDA068108R1		
	N250R200	2000A		1SDA068090R1		1SDA068109R1		
	N250R250	2500A		1SDA068092R1		1SDA068111R1		
	XT4S TMD	160R20		300A	100	1SDA068300R1		1SDA068314R1
160R32		320A		1SDA068302R1			1SDA068316R1	
160R50		500A		1SDA068304R1			1SDA068318R1	
160R80		800A	1SDA068306R1			1SDA068320R1		
XT4S TMA	160R100	1000A	1SDA068307R1			1SDA068321R1		
	160R125	1250A	1SDA068308R1			1SDA068327R1		
	160R160	1600A	1SDA068309R1			1SDA068328R1		
	250R200	2000A	1SDA068310R1			1SDA068329R1		
	250R250	2500A	1SDA068312R1			1SDA068331R1		
	XT4H TMD	160R20	300A	100		1SDA068333R1		1SDA068347R1
160R32		320A	1SDA068335R1				1SDA068349R1	
160R50		500A	1SDA068337R1				1SDA068351R1	
160R80		800A	1SDA068339R1			1SDA068353R1		
XT4H TMA	160R100	1000A	1SDA068340R1			1SDA068354R1		
	160R125	1250A	1SDA068341R1			1SDA068360R1		
	160R160	1600A	1SDA068342R1			1SDA068361R1		
	250R200	2000A	1SDA068343R1			1SDA068362R1		
	250R250	2500A	1SDA068345R1			1SDA068364R1		

# Power distribution circuit breakers

## Tmax XT4 - N, S, H electronic releases



### Ratings @ 400V

	Icu	Ics
XT4N	36kA	100%
XT4S	50kA	100%
XT4H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Electronic Release

Model	Type	In	Product Hierarchy 3000004			
			3 Pole		4 Pole	
			Price		Price	
XT4N LS/I	160 Ekip LS/I	40A	1SDA068122R1		1SDA068142R1	
	160 Ekip LS/I	63A	1SDA068123R1		1SDA068144R1	
	160 Ekip LS/I	100A	1SDA068124R1		1SDA068145R1	
	160 Ekip LS/I	160A	1SDA068125R1		1SDA068146R1	
	250 Ekip LS/I	250A	1SDA068126R1		1SDA068147R1	
T4N	320 PR221DS-LS	320A	1SDA054117R1		1SDA054121R1	
XT4N LSI	160 Ekip LSI	40A	1SDA068132R1		1SDA068153R1	
	160 Ekip LSI	63A	1SDA068133R1		1SDA068154R1	
	160 Ekip LSI	100A	1SDA068134R1		1SDA068155R1	
	160 Ekip LSI	160A	1SDA068135R1		1SDA068156R1	
	250 Ekip LSI	250A	1SDA068136R1		1SDA068157R1	
T4N	320 PR221DS-LSI	320A	1SDA054119R1		1SDA054123R1	
XT4S LS/I	160 Ekip LS/I	40A	1SDA068471R1		1SDA068491R1	
	160 Ekip LS/I	63A	1SDA068472R1		1SDA068492R1	
	160 Ekip LS/I	100A	1SDA068473R1		1SDA068493R1	
	160 Ekip LS/I	160A	1SDA068474R1		1SDA068494R1	
	160 Ekip LS/I	250A	1SDA068475R1		1SDA068495R1	
T4S	320 PR221DS-LS	320A	1SDA054125R1		1SDA054129R1	
XT4S LSI	160 Ekip LSI	40A	1SDA068481R1		1SDA068501R1	
	160 Ekip LSI	63A	1SDA068482R1		1SDA068502R1	
	160 Ekip LSI	100A	1SDA068483R1		1SDA068503R1	
	160 Ekip LSI	160A	1SDA068484R1		1SDA068504R1	
	160 Ekip LSI	250A	1SDA068485R1		1SDA068505R1	
T4S	320 PR221DS-LSI	320A	1SDA054127R1		1SDA054131R1	
XT4H LS/I	160 Ekip LS/I	40A	1SDA068511R1		1SDA068531R1	
	160 Ekip LS/I	63A	1SDA068512R1		1SDA068532R1	
	160 Ekip LS/I	100A	1SDA068513R1		1SDA068533R1	
	160 Ekip LS/I	160A	1SDA068514R1		1SDA068534R1	
	250 Ekip LS/I	250A	1SDA068515R1		1SDA068535R1	
T4H	320 PR221DS-LS/I	320A	1SDA054133R1		1SDA054137R1	
XT4H LSI	160 Ekip LSI	40A	1SDA068521R1		1SDA068541R1	
	160 Ekip LSI	63A	1SDA068522R1		1SDA068542R1	
	160 Ekip LSI	100A	1SDA068523R1		1SDA068543R1	
	160 Ekip LSI	160A	1SDA068524R1		1SDA068544R1	
	250 Ekip LSI	250A	1SDA068525R1		1SDA068545R1	
T4H	320 PR222DS-LSI	320A	1SDA054135R1		1SDA054139R1	

# Power distribution circuit breakers

## Tmax T5 - N, S, H thermomagnetic



### Ratings @ 400V

	Icu	Ics
T5N	36kA	100%
T5S	50kA	100%
T5H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Thermomagnetic TMA

3

Model	Current [A]			Product Hierarchy 3000004			
	Ith/In	I3	%N	3 Pole	Price	4 Pole	Price
T5N TMA	400R320	3200A	100	1SDA054436R1		1SDA054477R1	
	400R400	4000A		1SDA054437R1		1SDA054478R1	
	630R500	5000A		1SDA054456R1		1SDA054487R1	
T5S TMA	400R320	3200A	100	1SDA054440R1		1SDA054479R1	
	400R400	4000A		1SDA054441R1		1SDA054480R1	
	630R500	5000A		1SDA054461R1		1SDA054489R1	
T5H TMA	400R320	3200A	100	1SDA054444R1		1SDA054481R1	
	400R400	4000A		1SDA054445R1		1SDA054482R1	
	630R500	5000A		1SDA054465R1		1SDA054491R1	

# Power distribution circuit breakers

## Tmax T5 - N, S, H electronic releases



### Ratings @ 400V

	Icu	Ics
T5N	50kA	100%
T5S	50kA	100%
T5H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Electronic Release

Model	Type	In	Product Hierarchy 3000004			
			3 Pole	Price	4 Pole	Price
T5N LS/I	400 PR221DS-LS/I	320A	1SDA054316R1		1SDA054324R1	
	400 PR221DS-LS/I	400A	1SDA054317R1		1SDA054325R1	
	630 PR221DS-LS/I	630A	1SDA054396R1		1SDA054400R1	
T5N LSI	400 PR222DS/P-LSI	320A	1SDA054320R1		1SDA054328R1	
	400 PR222DS/P-LSI	400A	1SDA054321R1		1SDA054329R1	
	630 PR222DS/P-LSI	630A	1SDA054398R1		1SDA054402R1	
T5S LS/I	400 PR221DS-LS/I	320A	1SDA054332R1		1SDA054340R1	
	400 PR221DS-LS/I	400A	1SDA054333R1		1SDA054333R1	
	630 PR221DS-LS/I	630A	1SDA054404R1		1SDA054408R1	
T5S LSI	400 PR222DS/P-LSI	320A	1SDA054336R1		1SDA054344R1	
	400 PR222DS/P-LSI	400A	1SDA054337R1		1SDA054345R1	
	630 PR222DS/P-LSI	630A	1SDA054406R1		1SDA054410R1	
T5H LS/I	400 PR221DS-LS/I	320A	1SDA054348R1		1SDA054356R1	
	400 PR221DS-LS/I	400A	1SDA054349R1		1SDA054357R1	
	630 PR221DS-LS/I	630A	1SDA054412R1		1SDA054416R1	
T5H LSI	400 PR222DS/P-LSI	320A	1SDA054352R1		1SDA054360R1	
	400 PR222DS/P-LSI	400A	1SDA054353R1		1SDA054361R1	
	630 PR222DS/P-LSI	630A	1SDA054414R1		1SDA054418R1	



# Power distribution circuit breakers

## Tmax T6 - N, S, H, L thermomagnetic



### Ratings @ 400V

	Icu	Ics
T6N	36kA	100%
T6S	50kA	100%
T6H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Thermomagnetic TMA

3

Model	Current [A]			Product Hierarchy 3000004			
	Ith/In	I3	%N	3 Pole		4 Pole	
					Price		Price
T6N TMA	630R630	6300A	100	1SDA060202R1		1SDA060210R1	
	800R800	8000A		1SDA060214R1		1SDA060222R1	
T6S TMA	630R630	6300A	100	1SDA060204R1		1SDA060211R1	
	800R800	8000A		1SDA060216R1		1SDA060223R1	
T6H TMA	630R630	6300A	100	1SDA060206R1		1SDA060212R1	
	800R800	8000A		1SDA060218R1		1SDA060224R1	

# Power distribution circuit breakers

## Tmax T6 - N, S, H electronic release



### Ratings @ 400V

	Icu	Ics
T6N	36kA	100%
T6S	50kA	100%
T6H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Electronic Release

Model	Type	In	Product Hierarchy 3000004			
			3 Pole	Price	4 Pole	Price
<b>T6N</b> LS/I	630 PR221DS-LS/I	630A	1SDA060226R1		1SDA060231R1	
	800 PR221DS-LS/I	800A	1SDA060268R1		1SDA060273R1	
<b>T6N</b> P-LSI	630 PR222DS/P-LSI	630A	1SDA060228R1		1SDA060233R1	
	800 PR222DS/P-LSI	800A	1SDA060270R1		1SDA060275R1	
<b>T6S</b> LS/I	630 PR221DS-LS/I	630A	1SDA060236R1		1SDA060243R1	
	800 PR221DS-LS/I	800A	1SDA060278R1		1SDA060285R1	
<b>T6S</b> P-LSI	630 PR222DS/P-LSI	630A	1SDA060238R1		1SDA060243R1	
	800 PR222DS/P-LSI	800A	1SDA060280R1		1SDA060285R1	
<b>T6H</b> LS/I	630 PR221DS-LS/I	630A	1SDA060246R1		1SDA060251R1	
	800 PR221DS-LS/I	800A	1SDA060289R1		1SDA060294R1	
<b>T6H</b> P-LSI	630 PR222DS/P-LSI	630A	1SDA060248R1		1SDA060253R1	
	800 PR222DS/P-LSI	800A	1SDA060291R1		1SDA060296R1	

3

# Power distribution circuit breakers

## Tmax T7 - S electronic release



### Ratings @ 400V

	Icu	Ics
T7S	50kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

3

### Electronic Release

Model	Current [A]	In	Product Hierarchy 3000004			
Toggle Operated			3 Pole	Price	4 Pole	Price
<b>T7S</b> P-LS/I	800 PR231/P-LS/I	800A	1SDA061963R1		1SDA061973R1	
	1000 PR231/P-LS/I	1000A	1SDA062738R1		1SDA062746R1	
	1250 PR231/P-LS/I	1250A	1SDA062866R1		1SDA062874R1	
	1600 PR231/P-LS/I	1600A	1SDA062994R1		1SDA063002R1	
<b>T7S</b> P-LSI	800 PR232/P-LSI	800A	1SDA061964R1		1SDA061974R1	
	1000 PR232/P-LSI	1000A	1SDA062739R1		1SDA062747R1	
	1250 PR232/P-LSI	1250A	1SDA062867R1		1SDA062867R1	
	1600 PR232/P-LSI	1600A	1SDA062995R1		1SDA062995R1	
<b>T7S</b> P-LSIG	800 PR331/P-LSIG	800A	1SDA061965R1		1SDA061975R1	
	1000 PR331/P-LSIG	1000A	1SDA062740R1		1SDA062748R1	
	1250 PR331/P-LSIG	1250A	1SDA062868R1		1SDA062876R1	
	1600 PR331/P-LSIG	1600A	1SDA062996R1		1SDA063004R1	
<b>T7S</b> P-LSIG	800 PR332/P-LSIG	800A	1SDA061968R1		1SDA061978R1	
	1000 PR332/P-LSIG	1000A	1SDA062743R1		1SDA062751R1	
	1250 PR332/P-LSIG	1250A	1SDA062871R1		1SDA062879R1	
	1600 PR332/P-LSIG	1600A	1SDA062999R1		1SDA063007R1	
<b>T7S</b> P-LS/I	800 PR231/P-LS/I	800A	1SDA061981R1		1SDA061989R1	
	1000 PR231/P-LS/I	1000A	1SDA062754R1		1SDA062762R1	
	1250 PR231/P-LS/I	1250A	1SDA062882R1		1SDA062890R1	
	1600 PR231/P-LS/I	1600A	1SDA063010R1		1SDA063018R1	
<b>T7S</b> P-LSI	800 PR232/P-LSI	800A	1SDA061982R1		1SDA061990R1	
	1000 PR232/P-LSI	1000A	1SDA062755R1		1SDA062763R1	
	1250 PR232/P-LSI	1250A	1SDA062883R1		1SDA062891R1	
	1600 PR232/P-LSI	1600A	1SDA063011R1		1SDA063019R1	
<b>T7S</b> P-LSIG	800 PR331/P-LSIG	800A	1SDA061983R1		1SDA061991R1	
	1000 PR331/P-LSIG	1000A	1SDA062756R1		1SDA062764R1	
	1250 PR331/P-LSIG	1250A	1SDA062884R1		1SDA062892R1	
	1600 PR331/P-LSIG	1600A	1SDA063020R1		1SDA063019R1	
<b>T7S</b> P-LSIG	800 PR332/P-LSIG	800A	1SDA061986R1		1SDA061994R1	
	1000 PR332/P-LSIG	1000A	1SDA062759R1		1SDA062767R1	
	1250 PR332/P-LSIG	1250A	1SDA062887R1		1SDA062895R1	
	1600 PR332/P-LSIG	1600A	1SDA063015R1		1SDA063023R1	

# Power distribution circuit breakers

## Tmax T7 - H electronic release



### Ratings @ 400V

	Icu	Ics
T7H	70kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

### Electronic Release

Model	Current [A]	In	Product Hierarchy 3000004					
<b>Toggle Operated</b>			3 Pole		Price	4 Pole		Price
<b>T7H</b> P-LS/I	800 PR231/P-LS/I	800A	1SDA062642R1			1SDA062650R1		
	1000 PR231/P-LS/I	1000A	1SDA062770R1			1SDA062778R1		
	1250 PR231/P-LS/I	1250A	1SDA062898R1			1SDA062906R1		
	1600 PR231/P-LS/I	1600A	1SDA063026R1			1SDA063034R1		
<b>T7H</b> P-LSI	800 PR232/P-LSI	800A	1SDA062643R1			1SDA062651R1		
	1000 PR232/P-LSI	1000A	1SDA062771R1			1SDA062779R1		
	1250 PR232/P-LSI	1250A	1SDA062899R1			1SDA062907R1		
	1600 PR232/P-LSI	1600A	1SDA063027R1			1SDA063035R1		
<b>T7H</b> P-LSIG	800 PR331/P-LSIG	800A	1SDA062644R1			1SDA062652R1		
	1000 PR331/P-LSIG	1000A	1SDA062772R1			1SDA062780R1		
	1250 PR331/P-LSIG	1250A	1SDA062900R1			1SDA062908R1		
	1600 PR331/P-LSIG	1600A	1SDA063028R1			1SDA063036R1		
	800 PR332/P-LSIG	800A	1SDA062647R1			1SDA062655R1		
	1000 PR332/P-LSIG	1000A	1SDA062775R1			1SDA062873R1		
	1250 PR332/P-LSIG	1250A	1SDA062903R1			1SDA062911R1		
	1600 PR332/P-LSIG	1600A	1SDA063031R1			1SDA063039R1		
<b>Pushbutton Operated</b>								
<b>T7H</b> P-LS/I	800 PR231/P-LS/I	800A	1SDA062658R1			1SDA062666R1		
	1000 PR231/P-LS/I	1000A	1SDA062786R1			1SDA062794R1		
	1250 PR231/P-LS/I	1250A	1SDA062914R1			1SDA062922R1		
	1600 PR231/P-LS/I	1600A	1SDA063042R1			1SDA063050R1		
<b>T7H</b> P-LSI	800 PR232/P-LSI	800A	1SDA062659R1			1SDA062667R1		
	1000 PR232/P-LSI	1000A	1SDA062787R1			1SDA062795R1		
	1250 PR232/P-LSI	1250A	1SDA062915R1			1SDA062923R1		
	1600 PR232/P-LSI	1600A	1SDA063043R1			1SDA063051R1		
<b>T7H</b> P-LSIG	800 PR331/P-LSIG	800A	1SDA062660R1			1SDA062668R1		
	1000 PR331/P-LSIG	1000A	1SDA062788R1			1SDA062796R1		
	1250 PR331/P-LSIG	1250A	1SDA062916R1			1SDA062924R1		
	1600 PR331/P-LSIG	1600A	1SDA063044R1			1SDA063052R1		
	800 PR332/P-LSIG	800A	1SDA062663R1			1SDA062671R1		
	1000 PR332/P-LSIG	1000A	1SDA062791R1			1SDA062799R1		
	1250 PR332/P-LSIG	1250A	1SDA062919R1			1SDA062927R1		
	1600 PR332/P-LSIG	1600A	1SDA063047R1			1SDA063055R1		

# Power distribution circuit breakers

## Tmax switch disconnectors



Full range of product and technical information place this part number in a search engine and download  
**1SDC210015D0204**

### Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

3

### Non Automatic

### Product Hierarchy 3000004

Icw	Model	Current [A] lu	3 Pole		4 Pole	
				Price		Price
2kA	XT1D 160 F F	160	1SDA068208R1		1SDA068209R1	
	XT3D 250 F F	250	1SDA068210R1		1SDA068211R1	
3.6kA	XT4D 250 F F	250	1SDA068212R1		1SDA068213R1	
6kA	T5D 400 F F	400	1SDA054599R1		1SDA054600R1	
	T5D 630 F F	630	1SDA054601R1		1SDA054602R1	
15kA	T6D 630 F F	630	1SDA060343R1		1SDA060344R1	
	T6D 800 F F	1000	1SDA060345R1		1SDA060346R1	
	T6D 1000 F F	1250	1SDA060594R1		1SDA060595R1	

### Toggle Operated

25kA	T7D 1000 F F	1000	1SDA062032R1		1SDA062033R1	
	T7D 1250 F F	1250	1SDA062036R1		1SDA062037R1	
	T7D 1600 F F	1600	1SDA062040R1		1SDA062041R1	

### Pushbutton Operated

25kA	T7D 1000 M F F	1000	1SDA062034R1		1SDA062035R1	
	T7D 1250 M F F	1250	1SDA062038R1		1SDA062039R1	
	T7D 1600 M F F	1600	1SDA062042R1		1SDA062043R1	



# Power distribution circuit breakers

## Accessories

3







Starting from the fixed version circuit-breaker, all the other versions used for various requirements are obtained by means of mounting conversion kits.

The following are available:

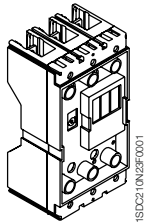
- Kit for converting a fixed circuit-breaker into the moving part of a plug-in
- Circuit-breaker fixed parts for plug-in circuit-breakers
- Conversion kit for the connection terminals

Various accessories are also available:

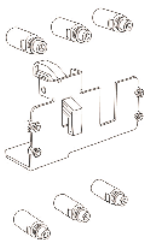
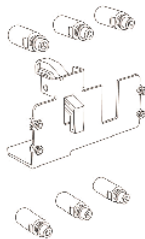
- Shunt opening releases
- Undervoltage releases
- Auxiliary contacts
- Position contacts
- Advanced contacts on rotary handle
- Front and rear connection terminals
- Bracket for rear fixing on DIN EN 50022 rail
- Front interlocking plate
- Solenoid operating mechanism
- Rotary handle operating mechanism - direct on circuit-breaker and transmitted on compartment door
- Three-pole and four-pole residual current releases

# Power distribution circuit breakers

## Tmax XT1 ... XT4 & T1 ... T7 accessories



1SDA02140V2E0003



3

### Plug-in (P) - Fixed Part

#### Product Hierarchy 3000006

	Order Code	Price	Order Code	Price
<b>F = Front terminals</b>	<b>3 pole</b>		<b>4 pole</b>	
XT1 (max In=125A)	1SDA068183R1		1SDA068185R1	
XT2	1SDA068187R1		1SDA051330R1	
XT3	1SDA068192R1		1SDA051332R1	
XT4	1SDA068196R1		1SDA054740R1	
T5 400	1SDA054749R1		1SDA054752R1	
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054762R1		1SDA054765R1	

<b>HR = Rear flat horizontal terminals</b>	<b>3 pole</b>		<b>4 pole</b>	
T4	1SDA054739R1		1SDA054742R1	
T5	1SDA054751R1		1SDA054754R1	
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054764R1		1SDA054767R1	

<b>VR = Rear flat vertical terminals</b>	<b>3 pole</b>		<b>4 pole</b>	
T4	1SDA054738R1		1SDA054741R1	
T5	1SDA054750R1		1SDA054753R1	
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054763R1		1SDA054766R1	

### Withdrawable (W) - Fixed Part

#### Product Hierarchy 3000006

	Order Code	Price	Order Code	Price
<b>F = Front terminals</b>	<b>3 pole</b>		<b>4 pole</b>	
XT2	1SDA068200R1		1SDA068202R1	
T4	1SDA054743R1		1SDA054746R1	
T5 400	1SDA054755R1		1SDA054758R1	
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054768R1		1SDA054771R1	
T6	1SDA060384R1		1SDA060387R1	
T7 - X1	1SDA062045R1		1SDA062049R1	

<b>HR = Rear flat horizontal terminals</b>	<b>3 pole</b>		<b>4 pole</b>	
T4	1SDA054745R1		1SDA054748R1	
T5 400	1SDA054757R1		1SDA054761R1	
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054770R1		1SDA054774R1	
T6	1SDA060385R1		1SDA060388R1	

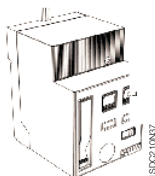
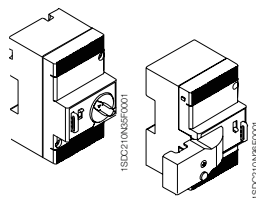
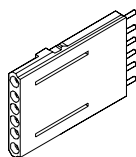
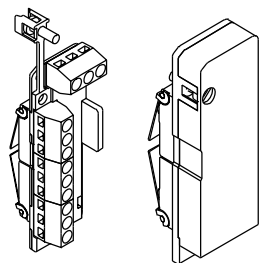
<b>VR = Rear flat horizontal terminals</b>	<b>3 pole</b>		<b>4 pole</b>	
T4	1SDA054744R1		1SDA054747R1	
T5 400	1SDA054756R1		1SDA054759R1	
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054769R1		1SDA054772R1	
T6	1SDA060386R1		1SDA060389R1	

<b>HR/V = Rear flat terminals</b>	<b>3 pole</b>		<b>4 pole</b>	
T7 - X1	1SDA062044R1		1SDA066276R1	

**Note:** Fixed parts on T7 - T7M circuit breakers with \*\*\*\* terminals are supplied as standard with terminals mounted in horizontal. To order the terminals mounted vertically, use the extra code 1SDA063521R1

# Power distribution circuit breakers

## Tmax XT1 ... XT4 & T1 ... T7 accessories



### Product Hierarchy 300006

#### Conversion of Version

Conversion kit from fixed to moving part of plug-in part of plug-in

	3 pole		4 pole	
	Order Code	Price	Order Code	Price
Kit P MP XT1 (max In=125A)	1SDA066276R1		1SDA066277R1	
Kit P MP XT2	1SDA066278R1		1SDA066279R1	
Kit P MP XT3	1SDA066280R1		1SDA066281R1	
Kit P MP XT4	1SDA066282R1		1SDA066283R1	
Kit MP T5 400 P	1SDA054843R1		1SDA054844R1	
Kit MP T5 630 P (max In=570A)	1SDA054847R1		1SDA054848R1	

Conversion kit from fixed to moving part of withdrawable

Kit MP XT2 160 W	1SDA066284R1		1SDA066285R1	
Kit MP XT4 250 W	1SDA066286R1		1SDA066287R1	
Kit MP T5 400 W	1SDA054845R1		1SDA054846R1	
Kit MP T5 630 W (max In=570A)	1SDA054849R1		1SDA054850R1	
Kit MP T6 630/800 W	1SDA060390R1		1SDA060391R1	
Kit MP T7-T7M-X1 W	1SDA062162R1		1SDA062163R1	

#### Sliding Contacts T7-T7M

Left Sliding Contact MP	1SDA062164R1	
Central Sliding Contact MP	1SDA062165R1	
Right Sliding Contact MP	1SDA062166R1	
Left Sliding Contact FP	1SDA062167R1	
Central Sliding Contact FP	1SDA062168R1	
Right Sliding Contact FP	1SDA062169R1	

**Note:** Always to be ordered in pairs (block for MP & block for FP) if the circuit breaker is automatic or fitted with electrical accessories withdrawable version. For more information, please contact us.

The sliding contact blocks are needed for T7 in the withdrawable version fitted with electrical accessories or with an electronic release. Their function is to make the electrical connection of the secondary circuits between the moving and fixed part. These blocks operate in pairs: one block must be mounted on the moving part and the other on the fixed part. The following table shows the possible combinations between sliding contact blocks and electrical accessories.

Left hand lock	Central lock	Right hand lock
Spring charger motor	PR331	Auxiliary contacts
"Closed springs charged" contact	PR332	Shunt opening release
"Ready to close" contact		Shunt closing release
Release trip signalling		Under voltage release

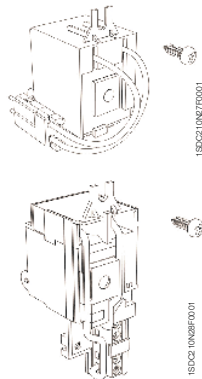
#### Terminal Covers for Fixed Part

TC-FP T4 4p Terminal Covers Fixed/P	1SDA054858R1	
TC-FP T5 400/630 4p Terminal Covers Fixed/P	1SDA054861R1	

# Power distribution circuit breakers

## Tmax XT1 ... XT4 & T1 ... T7 accessories

3



### Services releases

#### Shunt opening release - SOR

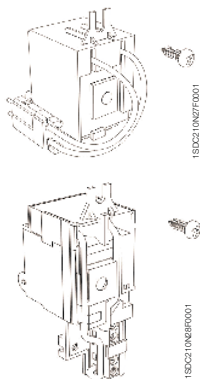
		Product Hierarchy 3000006	
		Order Code	Price
SOR-C XT1..XT4 F/P 12 Vdc		1SDA066321R1	
SOR-C XT2-XT4 W 12 Vdc		1SDA066328R1	
SOR-C XT1..XT4 F/P 24-30 Vac/dc		1SDA066322R1	
SOR-C XT2-XT4 W 24-30 Vac/dc		1SDA066329R1	
SOR-C XT1..XT4 F/P 48-60 Vac/dc		1SDA066323R1	
SOR-C XT2-XT4 W 48-60 Vac/dc		1SDA066330R1	
SOR-C XT1..XT4 F/P 110-127Vac-110-125Vdc		1SDA066324R1	
SOR-C XT2-XT4 W 110-127Vac-110-125Vdc		1SDA066331R1	
SOR-C XT1..XT4 F/P 220-240Vac-220-250Vdc		1SDA066325R1	
SOR-C XT2-XT4 W 220-240Vac-220-250Vdc		1SDA066332R1	
SOR-C XT1..XT4 F/P 380-440 Vac		1SDA066326R1	
SOR-C XT2-XT4 W 380-440 Vac		1SDA066333R1	
SOR-C XT1..XT4 F/P 480-525 Vac		1SDA066327R1	
SOR-C XT2-XT4 W 480-525 Vac		1SDA066334R1	
SOR-C T4-T5-T6 12 Vdc		1SDA054869R1	
SOR-C T4-T5-T6 48...60 Vac/dc		1SDA054871R1	
SOR-C T4-T5-T6 110..127Vac - 110..1		1SDA054872R1	
SOR-C T4-T5-T6 220..240Vac - 220..2		1SDA054873R1	
SOR-C T4-T5-T6 380...440 Vac		1SDA054874R1	
SOR-CT4-T5-T6 480...500Vac		1SDA054875R1	

#### Shunt opening/closing release - SOR/SCR

SOR/SCR T7-T7M-X1 24Va.c./d.c.	1SDA062065R1	
SOR/SCR T7-T7M-X1 30Va.c./d.c.	1SDA062066R1	
SOR/SCR T7-T7M-X1 48Va.c./d.c.	1SDA062067R1	
SOR/SCR T7-T7M-X1 60Va.c./d.c.	1SDA062068R1	
SOR/SCR T7-T7M-X1 110...120Va.c./d.c.	1SDA062069R1	
SOR/SCR T7-T7M-X1 240...250Va.c./d.c.	1SDA062070R1	
SOR/SCR T7-T7M-X1 380...400Va.c.	1SDA062071R1	
SOR/SCR T7-T7M-X1 415...440Va.c.	1SDA062072R1	

# Power distribution circuit breakers

## Tmax XT1 ... XT4 & T1 ... T7 accessories



### Services releases

#### Undervoltage release - UVR

	Product Hierarchy 3000006	
	Order Code	Price
UVR-C XT2-XT4 W 24-30 V ac/dc	1SDA066403R1	
UVR-C XT1...XT4 F/P 48 V ac/dc	1SDA069065R1	
UVR-C XT2-XT4 W 48 V ac/dc	1SDA069066R1	
UVR-C XT1...XT4 F/P 60 V ac/dc	1SDA066397R1	
UVR-C XT2-XT4 W 60 V ac/dc	1SDA066404R1	
UVR-C XT1...XT4 F/P 110-127V ac-110-125Vdc	1SDA066398R1	
UVR-C XT2-XT4 W 110-127V ac-110-125Vdc	1SDA066405R1	
UVR-C XT1...XT4 F/P 220-240V ac-220-250Vdc	1SDA066399R1	
UVR-C XT2-XT4 W 220-240V ac-220-250Vdc	1SDA066406R1	
UVR-C XT1...XT4 F/P 380-440 V ac	1SDA066400R1	
UVR-C XT2-XT4 W 380-440 V ac	1SDA066407R1	
UVR-C XT1...XT4 F/P 480-525 V ac	1SDA066401R1	
UVR-C XT2-XT4 W 480-525 V ac	1SDA066408R1	
UVR-C T4-T5-T6 24-30 V ac/dc	1SDA054887R1	
UVR-C T4-T5-T6 48 V ac/dc	1SDA054888R1	
UVR-CT4-T5-T6 60V ac/dc	1SDA054889R1	
UVR-C T4-T5-T6 110-127V ac-110-125Vdc	1SDA054890R1	
UVR-C T4-T5-T6 220-250 V ac/dc	1SDA054891R1	
UVR-C T4-T5-T6 380-440 V ac	1SDA054892R1	
UVR-C T4-T5-T6 480-500V ac	1SDA054893R1	
UVR T7-T7M-X1 24Va.c./d.c.	1SDA062087R1	
UVR T7-T7M-X130Va.c./d.c.	1SDA062088R1	
UVR T7-T7M-X148Va.c./d.c.	1SDA062089R1	
UVRT7-T7M-X160Va.c./d.c.	1SDA062090R1	
UVR T7-T7M-X1 110...120Va.c./d.c.	1SDA062091R1	
UVR T7-T7M-X1 240...250Va.c./d.c.	1SDA062092R1	
UVR T7-T7M-X1 380...400Va.c.	1SDA062093R1	
UVRT7-T7M-X1415...440Va.c.	1SDA062094R1	

#### Time delayed UVR

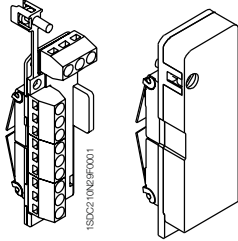
UVD T1...T6 24...30Va.c./d.c.	1SDA051357R1	
UVD T1...T6 48...60Va.c./d.c.	1SDA051358R1	
UVD T1...T6 110...125Va.c./d.c.	1SDA051360R1	
UVD T1...T6 220...250Va.c./d.c.	1SDA051361R1	

#### Electronic Time Delay for UVR

24/30V E1/6-T7-X1-T8	1SDA038316R1	
48V E1/6-T7-X1-T8	1SDA038317R1	
60V E1/6-T7-X1-T8	1SDA038318R1	
110-127V E1/6-T7-X1-T8	1SDA038319R1	
220-250V E1/6-T7-X1-T8	1SDA038320R1	

# Power distribution circuit breakers

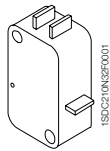
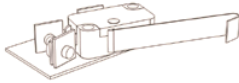
## Tmax XT1 ... XT4 & T1 ... T7 accessories



### Electrical Signals

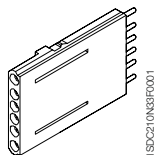
#### Product Hierarchy 3000006

Auxiliary contact - AUX	Order Code	Price
AUX-C 1Q+1SY 250 V XT1...XT4 F/P	1SDA066431R1	
AUX-C 3Q+1SY 250 V XT2...XT4 F/P	1SDA066434R1	
AUX-C 3Q+1SY 24 Vdc XT2...XT4 F/P	1SDA066448R1	
<b>Auxiliary contact - AUX</b>		
AUX-C T4-T5-T6 1Q 1SY 250 Vac/dc	1SDA054910R1	
AUX-C T4-T5-T6 3Q 1SY 250 Vac/dc	1SDA054911R1	
AUX-C T4-T5-T6 1Q 1SY 400 Vac	1SDA054912R1	
AUX-C T4-T5-T6 2Q 400 Vac	1SDA054913R1	
AUX-C T4-T5-T6 3Q 1SY 24 Vdc	1SDA054915R1	
<b>Cabled contact for signalling trip coil release</b>		
AUX-SA T4-T5 1S51 not for PR221-222-223	1SDA055050R1	
AUX-SA T6 1S51 for PR221-222-223	1SDA060393R1	
<b>Cabled contact for signalling motor operation T4-T5-T6</b>		
AUX-MOE-C T4-T5-T6 1Q x signal manual/automatic	1SDA054917R1	
<b>Auxiliary contact - AUX</b>		
AUX T7 1Q + 1SY 400Va.c.	1SDA062104R1	
AUX T7 1Q + 1SY 24Vd.c.	1SDA062103R1	
AUX T7-T7M-X1 2Q 400Va.c.	1SDA062102R1	
AUX T7-T7M-X1 2Q 24Vd.c.	1SDA062101R1	
AUX-SA T7 1 S51 250Va.c.	1SDA062105R1	
AUX-SA T7M-X1 1 S51 250Va.c.	1SDA063553R1	
<b>Aux contact for ready for ready to close T7M</b>		
AUX-RTC T7M - X1 24Vd.c. ready to close	1SDA062108R1	
AUX-RTC T7M - X1 250Va.c./d.c. ready to close	1SDA062109R1	
<b>Aux contact for springs charged</b>		
AUX-SC T7M - X1 24Vd.c. spring charged	1SDA062106R1	
AUX-SC T7M - X1 250Vac/dc spring charged	1SDA062107R1	
<b>Early aux contact</b>		
AUE T1-T2-T3 2 early contacts	1SDA051374R1	
AUE T4-T5 250Vac/dc 2 early contacts	1SDA054925R1	
AUE T6 250Vac/dc 2 early contacts	1SDA060394R1	
AUE T7 400Va.c. 3 early contacts	1SDA062112R1	
<b>Aux position contact</b>		
AUP T2-T3 con inserted signalling	1SDA051372R1	
AUP-I T4-T5-T6 con inserted signalling	1SDA054918R1	
AUP-I T4-T5-T6 24 Vdc con inserted signalling	1SDA054920R1	
AUP-R T4-T5-T6 24 Vdc con withdraw signalling	1SDA054921R1	
AUP-R T4-T5-T6 con withdraw signalling	1SDA054919R1	
AUP T7-T7M-X1 24Vd.c. (2INS+2TEST+2EXT)	1SDA062110R1	
AUP T7-T7M-X1 250Va.c. (2INS+2TEST+2EXT)	1SDA062111R1	

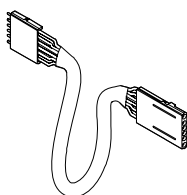


# Power distribution circuit breakers

## Tmax XT1 ... XT4 & T1 ... T7 accessories



1SDC210N88F0001



1SDC210N88F0001

### Electrical Signals

#### Adapters

	Product Hierarchy 3000006	
	Order Code	Price
ADP 5pin SOR/UVR RC T4-T5-T6 P/W	1SDA055173R1	
ADP 6pin AUX T4-T5-T6 P/W	1SDA054922R1	
ADP 12pin AUX T4-T5-T6 P/W	1SDA054923R1	
ADP 10pin MOE AUE T4-T5-T6 P/W	1SDA054924R1	

### Mechanical Signals

#### Test Extension

Trip Reset 110...130Vac/dc T7 pushbutton operated	1SDA062118R1	
Trip Reset 200...240Vac/dc T7 pushbutton operated	1SDA062119R1	

#### Trip Reset

Operation Counter T7 pushbutton operated	1SDA062160R1	
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### Motor Operators

#### Stored energy motor operator MOE

MOE XT2-XT4 24 Vdc	1SDA066463R1	
MOE XT2-XT4 48...60 Vdc	1SDA066464R1	
MOE XT2-XT4 110...125 Vac/dc	1SDA066465R1	
MOE XT2-XT4 220...250 Vac/dc	1SDA066466R1	
MOE XT2-XT4 380 Vac	1SDA066467R1	
MOE XT2-XT4 480...525 Vac	1SDA066468R1	

MOE T4-T5 24 Vdc	1SDA054894R1	
MOE T4-T5 48...60 Vdc	1SDA054895R1	
MOE T4-T5 110...125 Vac/dc	1SDA054896R1	
MOE T4-T5 220...250 Vac/dc	1SDA054897R1	
MOE T4-T5 380 Vac	1SDA054898R1	

MOE T6 24 Vdc	1SDA060395R1	
MOE T6 48...60Vdc	1SDA060396R1	
MOE T6 110...125 Vac/dc	1SDA060397R1	
MOE T6 220...250 Vac/dc	1SDA060398R1	
MOE T6 380Vac	1SDA060399R1	

#### Motor operator with direct action MOD

MOD XT1-XT3 24 Vdc	1SDA066457R1	
MOD XT1-XT3 48...60 Vdc	1SDA066458R1	
MOD XT1-XT3 110...125 Vac/dc	1SDA066459R1	
MOD XT1-XT3 220...250 Vac/dc	1SDA066460R1	
MOD XT1-XT3 380 Vac	1SDA066461R1	
MOD XT1-XT3 480...525 Vac	1SDA066462R1	

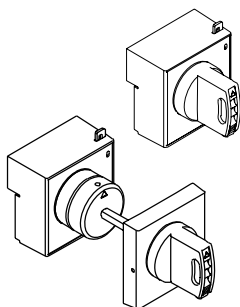
#### Spring charging motor

Spring charging motor T7M-X1 24...30Vac/dc	1SDA062113R1	
Spring charging motor T7M-X148...60Vac/dc	1SDA062114R1	
Spring charging motor T7M-X1 100...130Vac/	1SDA062115R1	
Spring charging motor T7M-X1 220...250 Vac	1SDA062116R1	
Spring charging motor T7M-X1 380...415Vac	1SDA062117R1	



# Power distribution circuit breakers

## Tmax XT1 ... XT4 & T1 ... T7 accessories



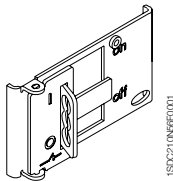
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Rotary Handle Operating Mechanism		Product Hierarchy 3000006	
Breaker	Direct - RHD	Order Code	Price
XT1-XT3	RHD Standard for fixed and plug-in	1SDA066475R1	
	RHD Emergency for fixed and plug-in	1SDA066477R1	
XT2-XT4	RHD Standard with-drawable	1SDA066476R1	
	RHD Emergency with-drawable	1SDA066478R1	
T4-T5	RHD Standard for fixed and plug-in	1SDA054926R1	
	RHD Emergency for fixed and plug-in	1SDA054927R1	
	RHD Standard with-drawable	1SDA054928R1	
T6	RHD Emergency with-drawable	1SDA055234R1	
	RHD Standard for fixed and plug-in	1SDA060405R1	
	RHD Emergency for fixed and plug-in	1SDA060406R1	
T7 Toggle operated	RHD Standard with-drawable	1SDA060407R1	
	RHD Emergency with-drawable	1SDA060408R1	
	RHD Standard for fixed and plug-in	1SDA062120R1	
	RHD Emergency for fixed and plug-in	1SDA062121R1	
T7 Pushbutton operated	RHD Standard with-drawable	1SDA062120R1	
	RHD Emergency with-drawable	1SDA062121R1	
	RHD Emergency with-drawable	1SDA062121R1	

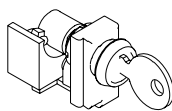
Breaker	Door Mounted Extended - RHE	Order Code	
XT1-XT3	RHE Standard for fixed and plug-in	1SDA066479R1	
	RHE Emergency for fixed and plug-in	1SDA066481R1	
XT2-XT4	RHE Standard with-drawable	1SDA066480R1	
	RHE Emergency with-drawable	1SDA066482R1	
T4-T5	RHE Standard for fixed and plug-in	1SDA054929R1	
	RHE Emergency for fixed and plug-in	1SDA054930R1	
	RHE Standard with-drawable	1SDA054933R1	
	RHE Emergency with-drawable	1SDA054934R1	
T6	RHE Standard for fixed and plug-in	1SDA060409R1	
	RHE Emergency for fixed and plug-in	1SDA060410R1	
	RHE Standard with-drawable	1SDA060411R1	
	RHE Emergency with-drawable	1SDA060412R1	
T7 Pushbutton operated	RHE Standard for fixed and plug-in	1SDA062122R1	
	RHE Emergency for fixed and plug-in	1SDA062123R1	
	RHE Standard with-drawable	1SDA062122R1	
	RHE Emergency with-drawable	1SDA062123R1	

# Power distribution circuit breakers

## Tmax XT1 ... XT4 & T1 ... T7 accessories



1SDC2101656F001



### Operating mechanism and locks

Padlock lever lock PPL	Breaker	Product Hierarchy 3000006	
		Order Code	Price
PLL - removable lock with padlocks in open position	XT1-XT3	1SDA066588R1	
PLL - fixed lock with padlocks in open position		1SDA066589R1	
PLL - fixed lock with padlocks in open/close position		1SDA066591R1	
PLL - fixed lock with padlocks in open position	XT2-XT4	1SDA066590R1	
PLL - fixed lock with padlocks in open/close position		1SDA066592R1	
PLL - padlock pushbutton in open position	T7 pushbutton opp.	1SDA062151R1	
PLL - padlock lever in open position	T7 pushbutton toggle	1SDA062150R1	

### Key locks KLC

KLC BL.Ronis locked in open position	XT1	1SDA066593R1	
KLC BL.Ronis locked in open position	XT2-XT4	1SDA066599R1	
KLC BL.Ronis locked in open position	XT3	1SDA066605R1	
KLC-D key lock service operation	T7	1SDA062134R1	
KLC key lock Ronis operator adapter		1SDA062139R1	
KLC key lock Profalux operator adapter		1SDA062140R1	

### Key locks front/rotary handle KLF

KLF-D different keys	T4-T5	1SDA054939R1	
KLF-S same keys		1SDA054940R1	
KLF-D different keys	T6	1SDA060658R1	
KLF-S key lock EQ.20005		1SDA060659R1	

### Key locks extended rotary handle shaft

Castell lock adapter	XT1-XT3	OETLZW16	
	XT4-T7	OETLZW5	

### Key locks motor operator MOL

MOL-D different keys	T4-T5	1SDA054904R1	
	T6	1SDA060611R1	
MOL-S same key for different groups (N.20005)	T4-T5	1SDA054905R1	
	T6	1SDA060612R1	
MOL-M manual operation same key	T4-T5	1SDA054909R1	
	T6	1SDA060616R1	

### Key lock in open position on the circuit breaker pushbutton operated

KLC-D key lock service operation	T7M	1SDA062141R1	
KLC Ronis-Profalux		1SDA062146R1	

### Key lock on handle

RHL Ronis different keys	XT1-XT4	1SDA066617R1	
RHL Ronis Type A		1SDA066618R1	

3

# Power distribution circuit breakers

## XT1 ... XT4 & T1 ... T7 accessories

3

### Operating mechanism and locks

Product Hierarchy 3000006

	Order Code	Price
Key lock in racked-in/test isolated/rack-out position		
Arrangement for Ronis key lock - can be equipped with two different keys T7	1SDA063567R1	
Arrangement for Profalux key lock T7	1SDA063570R1	
Arrangement for Castell key lock T7	1SDA063568R1	
Arrangement for Kirk key lock T7	1SDA063569R1	

### Front lock device

FLD XT2-XT4 F/P	1SDA066635R1	
FLD XT2-XT4 W	1SDA066636R1	
FLD T4-T5 F/P	1SDA054944R1	
FLD T4-T5 W	1SDA054945R1	
FLD T6 F/P	1SDA060417R1	
FLD T6 W	1SDA060418R1	

### Transparent Protection for Pushbutton

Pushbuttons trans protection T7 pushbutton operated	1SDA062132R1	
Pushbuttons trans protection independant	1SDA062133R1	
IP54 protection T7 pushbutton operated	1SDA062161R1	

### Mechanical Interlock MIR

T4-T5 Horizontal Interlock Frame	1SDA054946R1	
T4-T5 Vertical Interlock Frame	1SDA054947R1	
T4-T5 Type A Interlock Plate T4 (F-P-W) + T4 (F-P-W)	1SDA054948R1	
T4-T5 Type B Interlock Plate T4 (F-P-W) + T5 400 (F-P-W)	1SDA054949R1	
T4-T5 Type C Interlock Plate T6 (F-P-W) + T5 630 (P-W)	1SDA054950R1	
T4-T5 Type D Interlock Plate T5 400 (F-P-W) or T5 630 (F)+T5 400 (F-P-W) or T5 630 (F)	1SDA054951R1	
T4-T5 Type E Interlock Plate T5 400 (F-P-W) or T5 630 (F)+T5 630 (F-W)	1SDA054952R1	
T4-T5 Type F Interlock Plate T5 630 (P-W)+T5 630 (P-W)	1SDA054953R1	
T6 Mechanical Interlock - Horizontal	1SDA060685R1	
T6 Mechanical Interlock - Vertical	1SDA060686R1	

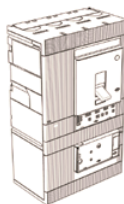
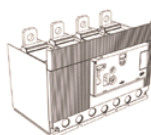
Note: To interlock two T4-T5 circuit breakers you have to order a frame unit interlock and plate (for type A or B or C or D or E or F) interlock

### Mechanical Interlock with cables

Kit cable mechanical Interlock HR/VR T7-T7M	1SDA062127R1	
Plate mechanical Interlock T7-T7M back plate fixed	1SDA062129R1	
Plate mechanical Interlock T7M F floor fixed	1SDA062130R1	
Plate mechanical Interlock T7-T7M W	1SDA062131R1	

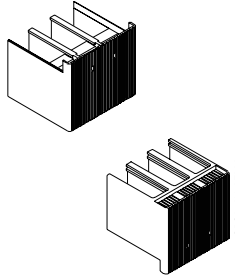
### Residual Current Devices

RC Sel x XT1 3p F	1SDA067123R1	
RC Sel x XT1 4p F	1SDA067125R1	
RC Sel x XT2 4p F	1SDA067126R1	
RC Sel x XT3 3p F	1SDA067128R1	
RC Sel x XT3 4p F	1SDA067130R1	
RC Sel x XT4 4p F	1SDA067131R1	
RC 222/5 for T5 4p F	1SDA054955R1	



# Power distribution circuit breakers

## XT1 ... XT4 & T1 ... T7 accessories



### Shrouds and terminals

#### Product Hierarchy 3000006

	Order Code	Price
<b>High shields</b>		
XT1 3P High Terminal shields (Pair) - HTC	1SDA066664R1	
XT1 4P High Terminal shields (Pair) - HTC	1SDA066665R1	
XT2 3P High Terminal shields (Pair) - HTC	1SDA066666R1	
XT2 4P High Terminal shields (Pair) - HTC	1SDA066667R1	
XT3 3P High Terminal shields (Pair) - HTC	1SDA066668R1	
XT3 4P High Terminal shields (Pair) - HTC	1SDA066669R1	
XT4 3P High Terminal shields (Pair) - HTC	1SDA066670R1	
XT4 4P High Terminal shields (Pair) - HTC	1SDA066671R1	
T5 3P High Terminal Shields (Pair)	1SDA054960R1	
T5 4P High Terminal Shields (Pair)	1SDA054961R1	
T6 3P High Terminal Shields (Pair)	1SDA014040R1	
T6 4P High Terminal Shields (Pair)	1SDA014041R1	
T7/T7M 3P High Terminal Shields (Pair)	1SDA063091R1	
T7/T7M 4P High Terminal Shields (Pair)	1SDA063092R1	
<b>Low shields</b>		
XT1 3P Low Terminal shields (Pair) - HTC	1SDA066655R1	
XT1 4P Low Terminal shields (Pair) - HTC	1SDA066656R1	
XT2 3P Low Terminal shields (Pair) - HTC	1SDA066657R1	
XT2 4P Low Terminal shields (Pair) - HTC	1SDA066659R1	
XT3 3P Low Terminal shields (Pair) - HTC	1SDA066660R1	
XT3 4P Low Terminal shields (Pair) - HTC	1SDA066661R1	
XT4 3P Low Terminal shields (Pair) - HTC	1SDA066662R1	
XT4 4P Low Terminal shields (Pair) - HTC	1SDA066663R1	
T5 3P Low Terminal Shields (Pair)	1SDA054968R1	
T5 4P Low Terminal Shields (Pair)	1SDA054969R1	
T6 3P Low Terminal Shields (Pair)	1SDA014038R1	
T6 4P Low Terminal Shields (Pair)	1SDA014039R1	
T7/T7M 3P Low Terminal Shields (Pair)	1SDA063093R1	
T7/T7M 4P Low Terminal Shields (Pair)	1SDA063094R1	
<b>Phase barriers</b>		
PB100 T4-5-T7-X1 3p PART.DIV.PHA.LOW	1SDA054970R1	
PB100 T4-5-T7-X1 4p PART.DIV.PHA.LOW	1SDA054971R1	
PB200 T4-5-7-T7M-X1 3p PART.DIV.PHA.HIGH	1SDA054972R1	
PB200 T4-5-7-T7M-X1 4p PART.DIV.PHA.HIGH	1SDA054973R1	
<b>Extended front terminals</b>		
KIT EF XT1 3pcs	1SDA066865R1	
KIT EF XT2 3pcs	1SDA066869R1	
KIT EF XT3 3pcs	1SDA066873R1	
KIT EF XT4 3pcs	1SDA066877R1	
KIT EF T5 3pcs	1SDA055036R1	
KIT EF T6 630 3pcs	1SDA023379R1	
KIT EF T6 800 3pcs	1SDA023383R1	
KIT EF T7-T7M-X1 3pcs	1SDA063103R1	
KIT EF XT1 4pcs	1SDA066866R1	
KIT EF XT2 4pcs	1SDA066870R1	
KIT EF XT3 4pcs	1SDA066874R1	
KIT EF XT4 4pcs	1SDA066878R1	
KIT EF T5 4pcs	1SDA055037R1	
KIT EF T6 630 4pcs	1SDA023389R1	
KIT EF T6 800 4pcs	1SDA023393R1	
KIT EF T7-T7M-X1 4pcs	1SDA063104R1	

# Power distribution circuit breakers

## XT1 ... XT4 & T1 ... T7 accessories

3

### Shrouds and terminals

#### Product Hierarchy 3000006

Terminals for CuAl cables	Order Code	Price
FC CuAl 1x35...95mm <sup>2</sup> XT1 3pcs	1SDA067155R1	
FC CuAl 1x2.5...95mm <sup>2</sup> XT2 3pcs	1SDA067163R1	
FC CuAl 2x35...95mm <sup>2</sup> XT2 3pcs	1SDA067175R1	
FC CuAl 1x70...185mm <sup>2</sup> XT2 3pcs	1SDA067167R1	
FC CuAl 2x35...150mm <sup>2</sup> XT3 3pcs	1SDA067187R1	
FC CuAl 1x90...185mm <sup>2</sup> XT3 3pcs	1SDA067179R1	
FC CuAl 1x150...240mm <sup>2</sup> XT3 3pcs+ADP	1SDA067183R1	
FC CuAl 1x2.5...185mm <sup>2</sup> XT4 3pcs	1SDA067191R1	
FC CuAl 2x35...150mm <sup>2</sup> XT4 3pcs	1SDA067199R1	
FC CuAl 1x2.5...185mm <sup>2</sup> XT4 3pcs	1SDA067191R1	
FC CuAl 2x120mm <sup>2</sup> T5 400 3pcs	1SDA055028R1	
FC CuAl 1x240mm <sup>2</sup> T5 400 3pcs	1SDA055020R1	
FC CuAl 1x300mm <sup>2</sup> T5 400 3pcs	1SDA055024R1	
FC CuAl 2x240mm <sup>2</sup> T5 630 3pcs	1SDA055032R1	
FC CuAl 2x240mm <sup>2</sup> T6 630-S6 630 3pcs	1SDA023380R1	
FC CuAl 3x185mm <sup>2</sup> T6 800-S6 800 3pcs	1SDA023384R1	
FC CuAl 4x150mm <sup>2</sup> T6 1000 3 pcs	1SDA060687R1	
FC CuAl 4x240mm <sup>2</sup> T7-T7M 1250 3pcs	1SDA063112R1	
FC CuAl 1x35...95mm <sup>2</sup> XT1 4pcs	1SDA067156R1	
FC CuAl 1x2.5...95mm <sup>2</sup> XT2 4pcs	1SDA067164R1	
FC CuAl 2x35...95mm <sup>2</sup> XT2 4pcs	1SDA067176R1	
FC CuAl 1x70...185mm <sup>2</sup> XT2 4pcs	1SDA067168R1	
FC CuAl 2x35...150mm <sup>2</sup> XT3 4pcs	1SDA067188R1	
FC CuAl 1x90...185mm <sup>2</sup> XT3 4pcs	1SDA067180R1	
FC CuAl 1x150...240mm <sup>2</sup> XT3 4pcs+ADP	1SDA067184R1	
FC CuAl 1x50mm <sup>2</sup> T4 4pcs	1SDA054985R1	
FC CuAl 2x35...150mm <sup>2</sup> XT4 4pcs	1SDA067200R1	
FC CuAl 1x2.5...185mm <sup>2</sup> XT4 4pcs	1SDA067192R1	
FC CuAl 2x120mm <sup>2</sup> T5 400 4pcs	1SDA055029R1	
FC CuAl 1x240mm <sup>2</sup> T5 400 4pcs	1SDA055021R1	
FC CuAl 1x300mm <sup>2</sup> T5 400 4pcs	1SDA055025R1	
FC CuAl 2x240mm <sup>2</sup> T5 630 4pcs	1SDA055033R1	
FC CuAl 2x240mm <sup>2</sup> T6 630-S6 630 4pcs	1SDA023390R1	
FC CuAl 3x185mm <sup>2</sup> T6 800-S6 800 4pcs	1SDA023394R1	
FC CuAl 4x150mm <sup>2</sup> T6 1000 4pcs	1SDA060688R1	
FC CuAl 4x240mm <sup>2</sup> T7-T7M 1250 4pcs	1SDA063113R1	
<b>Front terminals</b>		
KIT F XT1 3pcs	1SDA066849R1	
KIT F XT2 3pcs	1SDA066853R1	
KIT F XT3 3pcs	1SDA066857R1	
KIT F XT4 3pcs	1SDA066861R1	
KIT F T5 3pcs	1SDA055012R1	
KIT F T6 630/800 - S6 630/800 3pcs	1SDA060421R1	
KIT F T7-T7M 3pcs	1SDA063099R1	
KIT F XT1 4pcs	1SDA066850R1	
KIT F XT2 4pcs	1SDA066854R1	
KIT F XT3 4pcs	1SDA066858R1	
KIT F XT4 4pcs	1SDA066862R1	
KIT F T5 4pcs	1SDA055013R1	
KIT F T6 630/800 - S6 630/800 4pcs	1SDA060422R1	
KIT F T7-T7M 4pcs	1SDA063100R1	

# Power distribution circuit breakers

## XT1 ... XT4 & T1 ... T7 accessories

Shrouds and terminals	Product Hierarchy 3000006	
	Order Code	Price
<b>Extended spread front terminals</b>		
KIT ES XT2 3pcs	1SDA066893R1	
KIT ES XT3 3pcs	1SDA066897R1	
KIT ES XT4 3pcs	1SDA066901R1	
KIT ES T5 3pcs	1SDA055040R1	
KIT ES UP T6 - S6 3pcs	1SDA050692R1	
KIT ES LO T6 - S6 3pcs	1SDA050704R1	
KIT ES T7-T7M 3pcs UPP	1SDA063107R1	
KIT ES T7-T7M 3pcs LOW	1SDA063108R1	
<b>Extended spread front terminals</b>		
KIT ES XT2 4pcs	1SDA066894R1	
KIT ES XT3 4pcs	1SDA066898R1	
KIT ES XT4 4pcs	1SDA066902R1	
KIT ES T5 4pcs	1SDA055041R1	
KIT ES T6 - S6 4pcs	1SDA050693R1	
KIT ES T7-T7M 4pcs	1SDA063109R1	
<b>Terminals for Cu cables</b>		
KIT FC Cu XT2 3pcs	1SDA066909R1	
KIT FC Cu XT3 3pcs	1SDA066913R1	
KIT FC Cu XT4 3pcs	1SDA066917R1	
KIT FC Cu 1x240mm2 T5 400 3pcs	1SDA055016R1	
Kit FC Cu 2x240mm2 T5 630 3pcs	1SDA055364R1	
KIT RC 2x150mm2 T6 630 3pcs	1SDA023381R1	
KIT 1/2 3p F F>F RC T6 800	1SDA023385R1	
KIT FC Cu XT2 4pcs	1SDA066910R1	
KIT FC Cu XT3 4pcs	1SDA066914R1	
KIT FC Cu XT4 4pcs	1SDA066918R1	
KIT FC Cu 1x240mm2 T5 400 4pcs	1SDA055017R1	
Kit FC Cu 2x240mm2 T5 630 4pcs	1SDA055365R1	
KIT RC 2x150mm2 T6 630 4pcs	1SDA023391R1	
KIT RC 3x240mm2 T6 800 4pcs	1SDA023395R1	
<b>Rear adjustable terminals</b>		
KIT R XT2 3pcs	1SDA066941R1	
KIT R XT3 3pcs	1SDA066945R1	
KIT R XT4 3pcs	1SDA066949R1	
KIT R T5 3pcs	1SDA055044R1	
KIT R T6 3pcs	1SDA060425R1	
KIT R T7-T7M 3pcs	1SDA063116R1	
KIT R XT2 4pcs	1SDA066942R1	
KIT R XT3 4pcs	1SDA066946R1	
KIT R XT4 4pcs	1SDA066950R1	
KIT R T5 4pcs	1SDA055045R1	
KIT R T6 4pcs	1SDA060426R1	
<b>Rear horizontal connectors</b>		
KIT HR T7-T7M 3pcs	1SDA063120R1	
KIT HR T7-T7M 4pcs	1SDA063121R1	
<b>Rear vertical connectors</b>		
KIT VR T7-T7M 3pcs	1SDA063124R1	
KIT VR T7-T7M 4pcs	1SDA063125R1	

# Power distribution circuit breakers XT1 ... XT4 & T1 ... T7 accessories

## Product Hierarchy 3000006

### Front display unit

	Order Code	Price
FDU T4-T5 front display unit x PR222-223	1SDA055051R1	
FDU T6 front display unit x PR222-PR223	1SDA060429R1	

### Automatic transfer switches

ATS021 DISP.COMMUT.AUT.S/D MULTI TENS	1SDA065523R1	
ATS022 DISP.COMMUT.AUT.C/D CONT.AV.M/TEN	1SDA065524R1	

### Accessories for electronic trip units

HMI030 switch display unit T4..T7	1SDA063143R1	
PR330/V measuring module PR332 T7	1SDA063144R1	
PR330/D-M communication module PR332-3 T7-T7M	1SDA063145R1	
PR330/R driving unit PR332-3 T7-T7M	1SDA063146R1	
PR030/B battery unit E1/6-T7-T7M-X1	1SDA058258R1	

### Test and Configurator Unit

Ekip TT XT2-XT4	1SDA066988R1	
Ekip T&P	1SDA066989R1	

3



# Emax air circuit breakers

## X1N ACBs & X1B/MS disconnectors



### Ratings @ 400V

	Icu	Ics
X1N	50kA	100%
X1B/MS	42kA	100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC200009D0203**

X1N PR331/P			Product Hierarchy 2900003							
			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
X1N800	800	LSI	1SDA062282R1		1SDA062291R1		1SDA062300R1		1SDA062309R1	
		LSIG	1SDA062283R1		1SDA062292R1		1SDA062301R1		1SDA062310R1	
X1N1000	1000	LSI	1SDA062390R1		1SDA062399R1		1SDA062408R1		1SDA062417R1	
		LSIG	1SDA062391R1		1SDA062400R1		1SDA062409R1		1SDA062418R1	
X1N1250	1250	LSI	1SDA062498R1		1SDA062507R1		1SDA062516R1		1SDA062525R1	
		LSIG	1SDA062499R1		1SDA062508R1		1SDA062517R1		1SDA062526R1	
X1N1600	1600	LSI	1SDA062606R1		1SDA062615R1		1SDA062624R1		1SDA062633R1	
		LSIG	1SDA062607R1		1SDA062616R1		1SDA062625R1		1SDA062634R1	

3

X1N PR332/P			Product Hierarchy 2900003							
			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
X1N800	800	LSI	1SDA062285R1		1SDA062294R1		1SDA062303R1		1SDA062312R1	
		LSIG	1SDA062286R1		1SDA062295R1		1SDA062304R1		1SDA062313R1	
X1N1000	1000	LSI	1SDA062393R1		1SDA062402R1		1SDA062411R1		1SDA062420R1	
		LSIG	1SDA062394R1		1SDA062403R1		1SDA062412R1		1SDA062421R1	
X1N1250	1250	LSI	1SDA062501R1		1SDA062510R1		1SDA062519R1		1SDA062528R1	
		LSIG	1SDA062502R1		1SDA062511R1		1SDA062520R1		1SDA062529R1	
X1N1600	1600	LSI	1SDA062609R1		1SDA062618R1		1SDA062627R1		1SDA062636R1	
		LSIG	1SDA062610R1		1SDA062619R1		1SDA062628R1		1SDA062637R1	

X1B/MS Icw 42kA		Product Hierarchy 2900003							
		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
X1B/MS10	1000	1SDA062052R1		1SDA062053R1		1SDA062054R1		1SDA062055R1	
X1B/MS12	1250	1SDA062056R1		1SDA062057R1		1SDA062058R1		1SDA062059R1	
X1B/MS16	1600	1SDA062060R1		1SDA062061R1		1SDA062062R1		1SDA062063R1	

# Emax air circuit breakers

## E1N



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E1N	50kA	50kA	50kA	36kA
4th pole 100%				



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3

### E1N 50kA PR121/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E1N800	800	LSI	1SDA055697R1		1SDA055705R1		1SDA055713R1		1SDA055721R1	
		LSIG	1SDA055698R1		1SDA055706R1		1SDA055714R1		1SDA055722R1	
E1N1250	1250	LSI	1SDA055729R1		1SDA055737R1		1SDA055745R1		1SDA055753R1	
		LSIG	1SDA055730R1		1SDA055738R1		1SDA055746R1		1SDA055754R1	
E1N1600	1600	LSI	1SDA055761R1		1SDA055769R1		1SDA055777R1		1SDA055785R1	
		LSIG	1SDA055762R1		1SDA055770R1		1SDA055778R1		1SDA055786R1	

### E1N 50kA PR122/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E1N800	800	LSI	1SDA055700R1		1SDA055708R1		1SDA055716R1		1SDA055724R1	
		LSIG	1SDA055701R1		1SDA055709R1		1SDA055717R1		1SDA055725R1	
E1N1250	1250	LSI	1SDA055732R1		1SDA055740R1		1SDA055748R1		1SDA055756R1	
		LSIG	1SDA055733R1		1SDA055741R1		1SDA055749R1		1SDA055757R1	
E1N1600	1600	LSI	1SDA055764R1		1SDA055772R1		1SDA055780R1		1SDA055788R1	
		LSIG	1SDA055765R1		1SDA055773R1		1SDA055781R1		1SDA055789R1	

### E1N 50kA PR123/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E1N800	800	LSI	1SDA055702R1		1SDA055710R1		1SDA055718R1		1SDA055726R1	
		LSIG	1SDA055703R1		1SDA055711R1		1SDA055719R1		1SDA055727R1	
E1N1250	1250	LSI	1SDA055734R1		1SDA055742R1		1SDA055750R1		1SDA055758R1	
		LSIG	1SDA055735R1		1SDA055743R1		1SDA055751R1		1SDA055759R1	
E1N1600	1600	LSI	1SDA055766R1		1SDA055774R1		1SDA055782R1		1SDA055790R1	
		LSIG	1SDA055767R1		1SDA055775R1		1SDA055783R1		1SDA055791R1	

# Emax air circuit breakers

## E2N



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E2N	65kA	65kA	55kA	42kA
4th pole 100%				



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**1SDC200009D0203**

### E2N 65kA PR121/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E2N1250	1250	LSI	1SDA055857R1		1SDA055865R1		1SDA055873R1		1SDA055881R1	
		LSIG	1SDA055858R1		1SDA055866R1		1SDA055874R1		1SDA055882R1	
E2N1600	1600	LSI	1SDA055889R1		1SDA055897R1		1SDA055905R1		1SDA055913R1	
		LSIG	1SDA055890R1		1SDA055898R1		1SDA055906R1		1SDA055914R1	
E2N2000	2000	LSI	1SDA055921R1		1SDA055929R1		1SDA055937R1		1SDA055945R1	
		LSIG	1SDA055922R1		1SDA055930R1		1SDA055938R1		1SDA055946R1	

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### E2N 65kA PR122/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E2N1250	1250	LSI	1SDA055860R1		1SDA055868R1		1SDA055876R1		1SDA055884R1	
		LSIG	1SDA055861R1		1SDA055869R1		1SDA055877R1		1SDA055885R1	
E2N1600	1600	LSI	1SDA055892R1		1SDA055900R1		1SDA055908R1		1SDA055916R1	
		LSIG	1SDA055893R1		1SDA055901R1		1SDA055909R1		1SDA055917R1	
E2N2000	2000	LSI	1SDA055924R1		1SDA055932R1		1SDA055940R1		1SDA055948R1	
		LSIG	1SDA055925R1		1SDA055933R1		1SDA055941R1		1SDA055949R1	

### E2N 65kA PR123/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E2N1250	1250	LSI	1SDA055862R1		1SDA055870R1		1SDA055878R1		1SDA055886R1	
		LSIG	1SDA055863R1		1SDA055871R1		1SDA055879R1		1SDA055887R1	
E2N1600	1600	LSI	1SDA055894R1		1SDA055902R1		1SDA055910R1		1SDA055918R1	
		LSIG	1SDA055895R1		1SDA055903R1		1SDA055911R1		1SDA055919R1	
E2N2000	2000	LSI	1SDA055926R1		1SDA055934R1		1SDA055942R1		1SDA055950R1	
		LSIG	1SDA055927R1		1SDA055935R1		1SDA055943R1		1SDA055951R1	

# Emax air circuit breakers

## E2S



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E2S	85kA	85kA	65kA	50kA

4th pole 100%



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1SDC200009D0203

3

### E2S 85kA PR121/P

#### Product Hierarchy 2900003

Model	Current (A) In	Protection	Fixed breaker front connection				Moving Portion			
			3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E2S800	800	LSI	1SDA058283R1		1SDA058291R1		1SDA058299R1		1SDA058307R1	
		LSIG	1SDA058284R1		1SDA058292R1		1SDA058300R1		1SDA058308R1	
E2S1250	1250	LSI	1SDA055953R1		1SDA055961R1		1SDA055969R1		1SDA055881R1	
		LSIG	1SDA055954R1		1SDA055962R1		1SDA055970R1		1SDA055882R1	
E2S1600	1600	LSI	1SDA055985R1		1SDA055993R1		1SDA056001R1		1SDA056009R1	
		LSIG	1SDA055986R1		1SDA055994R1		1SDA056002R1		1SDA056010R1	
E2S2000	2000	LSI	1SDA056017R1		1SDA056025R1		1SDA056033R1		1SDA056041R1	
		LSIG	1SDA056018R1		1SDA056026R1		1SDA056034R1		1SDA056042R1	

### E2S 85kA PR122/P

#### Product Hierarchy 2900003

Model	Current (A) In	Protection	Fixed breaker front connection				Moving Portion			
			3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E2S800	800	LSI	1SDA058286R1		1SDA058294R1		1SDA058302R1		1SDA058310R1	
		LSIG	1SDA058287R1		1SDA058295R1		1SDA058303R1		1SDA058311R1	
E2S1250	1250	LSI	1SDA055956R1		1SDA055964R1		1SDA055972R1		1SDA055980R1	
		LSIG	1SDA055957R1		1SDA055965R1		1SDA055973R1		1SDA055981R1	
E2S1600	1600	LSI	1SDA055988R1		1SDA055996R1		1SDA056004R1		1SDA056012R1	
		LSIG	1SDA055989R1		1SDA055997R1		1SDA056005R1		1SDA056013R1	
E2S2000	2000	LSI	1SDA056020R1		1SDA056028R1		1SDA056036R1		1SDA056044R1	
		LSIG	1SDA056021R1		1SDA056029R1		1SDA056037R1		1SDA056045R1	

### E2S 85kA PR123/P

#### Product Hierarchy 2900003

Model	Current (A) In	Protection	Fixed breaker front connection				Moving Portion			
			3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E2S800	800	LSI	1SDA058288R1		1SDA058296R1		1SDA058304R1		1SDA058312R1	
		LSIG	1SDA058289R1		1SDA058297R1		1SDA058305R1		1SDA058313R1	
E2S1250	1250	LSI	1SDA055958R1		1SDA055966R1		1SDA055974R1		1SDA055982R1	
		LSIG	1SDA055959R1		1SDA055967R1		1SDA055975R1		1SDA055983R1	
E2S1600	1600	LSI	1SDA055990R1		1SDA055998R1		1SDA056006R1		1SDA056014R1	
		LSIG	1SDA055991R1		1SDA055999R1		1SDA056007R1		1SDA056015R1	
E2S2000	2000	LSI	1SDA056022R1		1SDA056030R1		1SDA056038R1		1SDA056046R1	
		LSIG	1SDA056023R1		1SDA056031R1		1SDA056039R1		1SDA056047R1	

# Emax air circuit breakers

## E3S



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E3S	75kA	75kA	75kA	65kA
4th pole 100%				



Full range of product and technical information place this part number in a search engine and download  
**1SDC200009D0203**

### E3S 75kA PR121/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E3S1250	1250	LSI	1SDA056177R1		1SDA056185R1		1SDA056193R1		1SDA056201R1	
		LSIG	1SDA056178R1		1SDA056186R1		1SDA056194R1		1SDA056202R1	
E3S1600	1600	LSI	1SDA056209R1		1SDA056217R1		1SDA056225R1		1SDA056233R1	
		LSIG	1SDA056210R1		1SDA056218R1		1SDA056226R1		1SDA056234R1	
E3S2000	2000	LSI	1SDA056241R1		1SDA056249R1		1SDA056257R1		1SDA056265R1	
		LSIG	1SDA056242R1		1SDA056250R1		1SDA056258R1		1SDA056266R1	
E3S2500	2500	LSI	1SDA056273R1		1SDA056281R1		1SDA056289R1		1SDA056297R1	
		LSIG	1SDA056274R1		1SDA056282R1		1SDA056290R1		1SDA056298R1	
E3S3200	3200	LSI	1SDA056305R1		1SDA056313R1		1SDA056321R1		1SDA056329R1	
		LSIG	1SDA056306R1		1SDA056314R1		1SDA056322R1		1SDA056330R1	

3

### E3S 75kA PR122/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E3S1250	1250	LSI	1SDA056372R1		1SDA056380R1		1SDA056196R1		1SDA056204R1	
		LSIG	1SDA056373R1		1SDA056381R1		1SDA056197R1		1SDA056205R1	
E3S1600	1600	LSI	1SDA056212R1		1SDA056220R1		1SDA056228R1		1SDA056236R1	
		LSIG	1SDA056213R1		1SDA056221R1		1SDA056229R1		1SDA056237R1	
E3S2000	2000	LSI	1SDA056244R1		1SDA056252R1		1SDA056260R1		1SDA056268R1	
		LSIG	1SDA056245R1		1SDA056253R1		1SDA056261R1		1SDA056269R1	
E3S2500	2500	LSI	1SDA056276R1		1SDA056284R1		1SDA056292R1		1SDA056300R1	
		LSIG	1SDA056277R1		1SDA056285R1		1SDA056293R1		1SDA056301R1	
E3S3200	3200	LSI	1SDA056308R1		1SDA056316R1		1SDA056324R1		1SDA056332R1	
		LSIG	1SDA056309R1		1SDA056317R1		1SDA056325R1		1SDA056333R1	

### E3S 75kA PR123/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E3S1250	1250	LSI	1SDA056182R1		1SDA056190R1		1SDA056198R1		1SDA056206R1	
		LSIG	1SDA056183R1		1SDA056191R1		1SDA056199R1		1SDA056207R1	
E3S1600	1600	LSI	1SDA056214R1		1SDA056222R1		1SDA056230R1		1SDA056238R1	
		LSIG	1SDA056215R1		1SDA056223R1		1SDA056231R1		1SDA056239R1	
E3S2000	2000	LSI	1SDA056246R1		1SDA056254R1		1SDA056262R1		1SDA056270R1	
		LSIG	1SDA056247R1		1SDA056255R1		1SDA056263R1		1SDA056271R1	
E3S2500	2500	LSI	1SDA056278R1		1SDA056286R1		1SDA056294R1		1SDA056302R1	
		LSIG	1SDA056279R1		1SDA056287R1		1SDA056295R1		1SDA056303R1	
E3S3200	3200	LSI	1SDA056310R1		1SDA056318R1		1SDA056326R1		1SDA056334R1	
		LSIG	1SDA056311R1		1SDA056319R1		1SDA056327R1		1SDA056335R1	

# Emax air circuit breakers

## E3H



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E3H	100kA	85kA	75kA	65kA
4th pole 100%				



Full range of product and technical information place this part number in a search engine and download  
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### E3H 100kA PR121/P

#### Product Hierarchy 2900003

Model	Current (A) In	Protection	Fixed breaker front connection				Moving Portion			
			3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E3H800	800	LSI	1SDA056337R1		1SDA056345R1		1SDA056353R1		1SDA056361R1	
		LSIG	1SDA056338R1		1SDA056346R1		1SDA056354R1		1SDA056362R1	
E3H1250	1250	LSI	1SDA056369R1		1SDA056377R1		1SDA056385R1		1SDA056393R1	
		LSIG	1SDA056370R1		1SDA056378R1		1SDA056386R1		1SDA056394R1	
E3H1600	1600	LSI	1SDA056401R1		1SDA056409R1		1SDA056417R1		1SDA056425R1	
		LSIG	1SDA056402R1		1SDA056410R1		1SDA056418R1		1SDA056426R1	
E3H2000	2000	LSI	1SDA056433R1		1SDA056441R1		1SDA056449R1		1SDA056457R1	
		LSIG	1SDA056434R1		1SDA056442R1		1SDA056450R1		1SDA056458R1	
E3H2500	2500	LSI	1SDA056465R1		1SDA056473R1		1SDA056481R1		1SDA056489R1	
		LSIG	1SDA056466R1		1SDA056474R1		1SDA056482R1		1SDA056490R1	
E3H3200	3200	LSI	1SDA056497R1		1SDA056505R1		1SDA056513R1		1SDA056521R1	
		LSIG	1SDA056498R1		1SDA056506R1		1SDA056514R1		1SDA056522R1	

### E3H 100kA PR122/P

#### Product Hierarchy 2900003

Model	Current (A) In	Protection	Fixed breaker front connection				Moving Portion			
			3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E3H800	800	LSI	1SDA056340R1		1SDA056348R1		1SDA056356R1		1SDA056364R1	
		LSIG	1SDA056341R1		1SDA056349R1		1SDA056357R1		1SDA056365R1	
E3H1250	1250	LSI	1SDA056373R1		1SDA056180R1		1SDA056389R1		1SDA056396R1	
		LSIG	1SDA056404R1		1SDA056181R1		1SDA056420R1		1SDA056397R1	
E3H1600	1600	LSI	1SDA056405R1		1SDA056412R1		1SDA056421R1		1SDA056428R1	
		LSIG	1SDA056436R1		1SDA056413R1		1SDA056452R1		1SDA056429R1	
E3H2000	2000	LSI	1SDA056437R1		1SDA056444R1		1SDA056453R1		1SDA056460R1	
		LSIG	1SDA056468R1		1SDA056445R1		1SDA056484R1		1SDA056461R1	
E3H2500	2500	LSI	1SDA056469R1		1SDA056476R1		1SDA056485R1		1SDA056492R1	
		LSIG	1SDA056500R1		1SDA056477R1		1SDA056516R1		1SDA056493R1	
E3H3200	3200	LSI	1SDA056501R1		1SDA056508R1		1SDA056517R1		1SDA056524R1	
		LSIG	1SDA056502R1		1SDA056509R1		1SDA056517R1		1SDA056525R1	

### E3H 100kA PR123/P

#### Product Hierarchy 2900003

Model	Current (A) In	Protection	Fixed breaker front connection				Moving Portion			
			3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E3H800	800	LSI	1SDA056342R1		1SDA056350R1		1SDA056358R1		1SDA056366R1	
		LSIG	1SDA056343R1		1SDA056351R1		1SDA056359R1		1SDA056367R1	
E3H1250	1250	LSI	1SDA056182R1		1SDA056190R1		1SDA056390R1		1SDA056398R1	
		LSIG	1SDA056183R1		1SDA056191R1		1SDA056391R1		1SDA056399R1	
E3H1600	1600	LSI	1SDA056406R1		1SDA056414R1		1SDA056422R1		1SDA056430R1	
		LSIG	1SDA056407R1		1SDA056415R1		1SDA056423R1		1SDA056431R1	
E3H2000	2000	LSI	1SDA056438R1		1SDA056446R1		1SDA056454R1		1SDA056462R1	
		LSIG	1SDA056439R1		1SDA056447R1		1SDA056455R1		1SDA056463R1	
E3H2500	2500	LSI	1SDA056470R1		1SDA056478R1		1SDA056486R1		1SDA056494R1	
		LSIG	1SDA056471R1		1SDA056479R1		1SDA056487R1		1SDA056495R1	
E3H3200	3200	LSI	1SDA056502R1		1SDA056510R1		1SDA056518R1		1SDA056526R1	
		LSIG	1SDA056503R1		1SDA056511R1		1SDA056519R1		1SDA056527R1	

# Emax air circuit breakers

## E4H



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E4H	100kA	100kA	100kA	75kA
4th pole		50%		



Full range of product and technical information place this part number in a search engine and download  
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### E4H 100kA PR121/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E4H3200	3200	LSI	1SDA056817R1		1SDA056825R1		1SDA056833R1		1SDA056841R1	
		LSIG	1SDA056818R1		1SDA056826R1		1SDA056834R1		1SDA056842R1	
E4H4000	4000	LSI	1SDA056849R1		1SDA056857R1		1SDA056865R1		1SDA056873R1	
		LSIG	1SDA056850R1		1SDA056858R1		1SDA056866R1		1SDA056874R1	

3

### E4H 100kA PR122/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E4H3200	3200	LSI	1SDA056820R1		1SDA056828R1		1SDA056836R1		1SDA056844R1	
		LSIG	1SDA056821R1		1SDA056829R1		1SDA056837R1		1SDA056845R1	
E4H4000	4000	LSI	1SDA056852R1		1SDA056860R1		1SDA056868R1		1SDA056876R1	
		LSIG	1SDA056853R1		1SDA056861R1		1SDA056869R1		1SDA056877R1	

### E4H 100kA PR123/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E4H3200	3200	LSI	1SDA056822R1		1SDA056830R1		1SDA056838R1		1SDA056849R1	
		LSIG	1SDA056823R1		1SDA056831R1		1SDA056839R1		1SDA056847R1	
E4H4000	4000	LSI	1SDA056854R1		1SDA056862R1		1SDA056870R1		1SDA056878R1	
		LSIG	1SDA056855R1		1SDA056863R1		1SDA056871R1		1SDA056879R1	



# Emax air circuit breakers

## E6H



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E6H	100kA	100kA	100kA	85kA

4th pole 50%



Full range of product and technical information place this part number in a search engine and download  
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### E6H 100kA PR121/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E6H4000	4000	LSI	1SDA056945R1		1SDA056953R1		1SDA056961R1		1SDA056969R1	
		LSIG	1SDA056946R1		1SDA056954R1		1SDA056962R1		1SDA056970R1	
E6H5000	5000	LSI	1SDA056977R1		1SDA056985R1		1SDA056993R1		1SDA057001R1	
		LSIG	1SDA056978R1		1SDA056986R1		1SDA056994R1		1SDA057002R1	
E6H6300	6300	LSI	1SDA057009R1		1SDA057017R1		1SDA057025R1		1SDA057033R1	
		LSIG	1SDA057010R1		1SDA057018R1		1SDA057026R1		1SDA057034R1	

### E6H 100kA PR122/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E6H4000	4000	LSI	1SDA056948R1		1SDA056956R1		1SDA056964R1		1SDA056972R1	
		LSIG	1SDA056949R1		1SDA056957R1		1SDA056965R1		1SDA056973R1	
E6H5000	5000	LSI	1SDA056980R1		1SDA056988R1		1SDA056996R1		1SDA057004R1	
		LSIG	1SDA056981R1		1SDA056989R1		1SDA056997R1		1SDA057005R1	
E6H6300	6300	LSI	1SDA057012R1		1SDA057020R1		1SDA057028R1		1SDA057036R1	
		LSIG	1SDA057013R1		1SDA057021R1		1SDA057029R1		1SDA057037R1	

### E6H 100kA PR123/P

#### Product Hierarchy 2900003

			Fixed breaker front connection				Moving Portion			
Model	Current (A) In	Protection	3 pole		4 pole		3 pole		4 pole	
			Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E6H4000	4000	LSI	1SDA056950R1		1SDA056958R1		1SDA056966R1		1SDA056974R1	
		LSIG	1SDA056951R1		1SDA056959R1		1SDA056967R1		1SDA056975R1	
E6H5000	5000	LSI	1SDA056982R1		1SDA056990R1		1SDA056998R1		1SDA057006R1	
		LSIG	1SDA056983R1		1SDA056991R1		1SDA056999R1		1SDA057007R1	
E6H6300	6300	LSI	1SDA057014R1		1SDA057022R1		1SDA057030R1		1SDA057038R1	
		LSIG	1SDA057015R1		1SDA057023R1		1SDA057031R1		1SDA057039R1	

# Emax air circuit breakers

## E4S/f 4th pole 100%



**Ue 690V**  
**Ratings @ 415V**

	Icu	Ics	Icw	
			1s	3s
E4S/f	80kA	80kA	75kA	75kA

4th pole 100%



Full range of product and technical information place this part number in a search engine and download  
**1SDC20009D0203**

E4S/f 80kA PR121/P			Product Hierarchy 2900003			
			Fixed breaker front connection		Moving Portion	
			4 pole		4 pole	
Model	Current (A) In	Protection	Order Code	Price	Order Code	Price
E4S/f4000	4000	LSI	1SDA055537R1		1SDA055545R1	
		LSIG	1SDA055538R1		1SDA055546R1	

3

E4S/f 80kA PR122/P			Product Hierarchy 2900003			
			Fixed breaker front connection		Moving Portion	
			4 pole		4 pole	
Model	Current (A) In	Protection	Order Code	Price	Order Code	Price
E4S/f4000	4000	LSI	1SDA055540R1		1SDA055548R1	
		LSIG	1SDA055541R1		1SDA055549R1	

E4S/f 80kA PR123/P			Product Hierarchy 2900003			
			Fixed breaker front connection		Moving Portion	
			4 pole		4 pole	
Model	Current (A) In	Protection	Order Code	Price	Order Code	Price
E4S/f4000	4000	LSI	1SDA055542R1		1SDA055550R1	
		LSIG	1SDA055543R1		1SDA055551R1	

# Emax air circuit breakers

## E6H/f 4th pole 100%



Ue 690V  
Ratings @ 415V

	Icu	Ics	Icw	
			1s	3s
E6H/f	100kA	100kA	100kA	85kA
<b>4th pole 100%</b>				



Full range of product and technical information place this part number in a search engine and download  
**1SDC200009D0203**

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### E6H/f 100kA PR121/P

#### Product Hierarchy 2900003

			Fixed breaker front connection		Moving Portion	
			4 pole		4 pole	
Model	Current (A) In	Protection	Order Code	Price	Order Code	Price
E6H/f4000	4000	LSI	1SDA055553R1		1SDA055561R1	
		LSIG	1SDA055554R1		1SDA055562R1	
E6H/f5000	5000	LSI	1SDA055569R1		1SDA055577R1	
		LSIG	1SDA055570R1		1SDA055578R1	
E6H/f6300	6300	LSI	1SDA055585R1		1SDA055593R1	
		LSIG	1SDA055586R1		1SDA055594R1	

### E6H/f 100kA PR122/P

#### Product Hierarchy 2900003

			Fixed breaker front connection		Moving Portion	
			4 pole		4 pole	
Model	Current (A) In	Protection	Order Code	Price	Order Code	Price
E6H/f4000	4000	LSI	1SDA055556R1		1SDA055564R1	
		LSIG	1SDA055557R1		1SDA055565R1	
E6H/f5000	5000	LSI	1SDA055572R1		1SDA055580R1	
		LSIG	1SDA055573R1		1SDA055581R1	
E6H/f6300	6300	LSI	1SDA055588R1		1SDA055596R1	
		LSIG	1SDA055589R1		1SDA055597R1	

### E6H/f 100kA PR123/P

#### Product Hierarchy 2900003

			Fixed breaker front connection		Moving Portion	
			4 pole		4 pole	
Model	Current (A) In	Protection	Order Code	Price	Order Code	Price
E6H/f4000	4000	LSI	1SDA055558R1		1SDA055566R1	
		LSIG	1SDA055559R1		1SDA055567R1	
E6H/f5000	5000	LSI	1SDA055574R1		1SDA055582R1	
		LSIG	1SDA055575R1		1SDA055583R1	
E6H/f6300	6300	LSI	1SDA055590R1		1SDA055598R1	
		LSIG	1SDA055591R1		1SDA055599R1	

# Emax air circuit breakers E1-E3 switch disconnectors



Ue 690V  
Ratings @ 415V

	Icm	Icw	
		1s	3s
E1N/MS	105kA	50kA	36kA
E2N/MS	121kA	55kA	42kA
E2S/MS	143kA	65kA	50kA
E3S/MS	165kA	65kA	50kA
4th pole	100%		



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E1N/MS 105kA		Product Hierarchy 2900003							
		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E1N/MS800	800	1SDA058933R1		1SDA058934R1		1SDA058941R1		1SDA058942R1	
E1N/MS1250	1250	1SDA058937R1		1SDA058938R1		1SDA058945R1		1SDA058946R1	
E1N/MS1600	1600	1SDA058861R1		1SDA058862R1		1SDA058863R1		1SDA058864R1	

E2N/MS 121kA		Product Hierarchy 2900003							
		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code		Order Code		Order Code		Order Code	
E2N/MS1250	1250	1SDA058947R1		1SDA058948R1		1SDA058957R1		1SDA058958R1	
E2N/MS1600	1600	1SDA058951R1		1SDA058952R1		1SDA058961R1		1SDA058962R1	
E2N/MS1600	2000	1SDA058955R1		1SDA058956R1		1SDA058965R1		1SDA058966R1	

E2S/MS 143kA		Product Hierarchy 2900003							
		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code		Order Code		Order Code		Order Code	
E2S/MS1250	1250	1SDA058865R1		1SDA058866R1		1SDA058867R1		1SDA058868R1	
E2S/MS1600	1600	1SDA058869R1		1SDA058870R1		1SDA058871R1		1SDA058872R1	
E2S/MS2000	2000	1SDA058873R1		1SDA058874R1		1SDA058875R1		1SDA058876R1	

E3N/MS 143kA		Product Hierarchy 2900003							
		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code		Order Code		Order Code		Order Code	
E3N/MS2500	2500	1SDA058973R1		1SDA058974R1		1SDA058987R1		1SDA058988R1	
E3N/MS3200	3200	1SDA058977R1		1SDA058978R1		1SDA058991R1		1SDA058992R1	

E3S/MS 165kA		Product Hierarchy 2900003							
		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code		Order Code		Order Code		Order Code	
E3S/MS1250	1250	1SDA058967R1		1SDA058968R1		1SDA058981R1		1SDA058982R1	
E3S/MS1600	1600	1SDA058969R1		1SDA058970R1		1SDA058983R1		1SDA058984R1	
E3S/MS2000	2000	1SDA058971R1		1SDA058972R1		1SDA058985R1		1SDA058986R1	
E3S/MS2500	2500	1SDA058975R1		1SDA058976R1		1SDA058989R1		1SDA058990R1	
E3S/MS3200	3200	1SDA058979R1		1SDA058980R1		1SDA058993R1		1SDA058994R1	

# Emax air circuit breakers E4-6 switch disconnectors



**Ue 690V**  
**Ratings @ 415V**

	Icm	Icw	
		1s	3s
E4S/MS	165kA	75kA	75kA
E4H/MS	220kA	100kA	75kA
<hr/>			
E6H/MS	220kA	100kA	85kA
<hr/>			
4th pole 50%			



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**3**

## E4S/MS 165kA

### Product Hierarchy 2900003

		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E4S/MS4000	4000	1SDA058997R1		1SDA058998R1		1SDA059003R1		1SDA059004R1	

## E4H/MS 220kA

### Product Hierarchy 2900003

		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E4H/MS1250	3200	1SDA058995R1		1SDA058996R1		1SDA059001R1		1SDA059002R1	
E4H/MS1600	4000	1SDA058999R1		1SDA059000R1		1SDA059005R1		1SDA059006R1	

## E6H/MS 220kA

### Product Hierarchy 2900003

		Fixed breaker front connection				Moving Portion			
Model	Current (A) In	3 pole		4 pole		3 pole		4 pole	
		Order Code	Price	Order Code	Price	Order Code	Price	Order Code	Price
E6H/MS4000	4000	1SDA058905R1		1SDA058906R1		1SDA058907R1		1SDA058908R1	
E6H/MS5000	5000	1SDA059007R1		1SDA059008R1		1SDA059011R1		1SDA059012R1	
E6H/MS6300	6300	1SDA059009R1		1SDA059010R1		1SDA059013R1		1SDA059014R1	

# Emax air circuit breakers

## E4f-6f switch disconnectors 4th pole 100%



Ue 690V  
Ratings @ 415V

	lcm		lcw	
			1s	3s
E4S/f/MS	165kA	75kA	75kA	
E4H/f/MS	220kA	100kA	75kA	
<hr/>				
E6H/f/MS	220kA	100kA	85kA	
<hr/>				
4th pole 100%				



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E4S/f/MS 165kA		Product Hierarchy 2900003			
		Fixed breaker front connection		Moving Portion	
		4 pole		4 pole	
Model	Current (A) In	Order Code	Price	Order Code	Price
E4S/f/MS4000	4000	1SDA059015R1		1SDA059016R1	

E4H/f/MS 220kA		Product Hierarchy 2900003			
		Fixed breaker front connection		Moving Portion	
		4 pole		4 pole	
Model	Current (A) In	Order Code	Price	Order Code	Price
E4H/f/MS3200	3200	1SDA058901R1		1SDA058902R1	
E4H/f/MS4000	4000	1SDA058903R1		1SDA058904R1	

E6H/f/MS 220kA		Product Hierarchy 2900003			
		Fixed breaker front connection		Moving Portion	
		4 pole		4 pole	
Model	Current (A) In	Order Code	Price	Order Code	Price
E6H/f/MS4000	4000	1SDA058909R1		1SDA058910R1	
E6H/f/MS5000	5000	1SDA059017R1		1SDA059019R1	
E6H/f/MS6300	6300	1SDA059018R1		1SDA059020R1	

3

# Emax air circuit breakers

## FP fixed parts X1, E1 - E3

3

X1 withdrawable (W) - FP	Product Hierarchy 2900003			
	3 pole		4 pole	
	Order Code	Price	Order Code	Price
EF-EE	1SDA062045R1		1SDA062049R1	
HR-VR	1SDA062048R1		1SDA062048R1	

E1 withdrawable (W) - FP	Product Hierarchy 2900003			
	3 pole		4 pole	
	Order Code		Order Code	
HR	1SDA059666R1		1SDA059762R1	
VR	1SDA059672R1		1SDA059770R1	
F	1SDA059678R1		1SDA059778R1	
FL	1SDA059684R1		1SDA059786R1	
HR-VR	1SDA059690R1		1SDA059794R1	
VR-HR	1SDA059708R1		1SDA059818R1	

E2 withdrawable (W) - FP	Product Hierarchy 2900003			
	3 pole		4 pole	
	Order Code		Order Code	
HR	1SDA059667R1		1SDA059763R1	
VR	1SDA059673R1		1SDA059771R1	
F	1SDA059679R1		1SDA059779R1	
FL	1SDA059685R1		1SDA059787R1	
HR-VR	1SDA059691R1		1SDA059795R1	
VR-HR	1SDA059709R1		1SDA059819R1	

E2S withdrawable (W) - FP	Product Hierarchy 2900003			
	3 pole		4 pole	
	Order Code		Order Code	
HR	1SDA059668R1		1SDA059764R1	
VR	1SDA059674R1		1SDA059772R1	
F	1SDA059680R1		1SDA059780R1	
FL	1SDA059686R1		1SDA059788R1	
HR-VR	1SDA059692R1		1SDA059796R1	
VR-HR	1SDA059710R1		1SDA059820R1	

E3 withdrawable (W) - FP	Product Hierarchy 2900003			
	3 pole		4 pole	
	Order Code		Order Code	
HR	1SDA059669R1		1SDA059765R1	
VR	1SDA059675R1		1SDA059773R1	
F	1SDA059681R1		1SDA059781R1	
FL	1SDA059687R1		1SDA059789R1	
HR-VR	1SDA059693R1		1SDA059797R1	
VR-HR	1SDA059711R1		1SDA059821R1	



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# Emax air circuit breakers

## FP fixed parts E4 - E6 E4/f - E6/f

E4 withdrawable (W) - FP	Product Hierarchy 2900003			
	3 pole		4 pole	
	Order Code	Price	Order Code	Price
HR	1SDA059670R1		1SDA059766R1	
VR	1SDA059676R1		1SDA059774R1	
F	1SDA059682R1		1SDA059782R1	
FL	1SDA059688R1		1SDA059790R1	
HR-VR	1SDA059694R1		1SDA059798R1	
VR-HR	1SDA059712R1		1SDA059822R1	

E6 withdrawable (W) - FP	Product Hierarchy 2900003			
	3 pole		4 pole	
	Order Code	Price	Order Code	Price
HR	1SDA059671R1		1SDA059768R1	
VR	1SDA059677R1		1SDA059776R1	
F	1SDA059683R1		1SDA059784R1	
FL	1SDA059689R1		1SDA059792R1	
HR-VR	1SDA059695R1		1SDA059800R1	
VR-HR	1SDA059713R1		1SDA059824R1	

E4/f withdrawable (W) - FP	Product Hierarchy 2900003	
	4 pole	
	Order Code	Price
HR	1SDA059767R1	
VR	1SDA059775R1	
F	1SDA059783R1	
FL	1SDA059791R1	
HR-VR	1SDA059799R1	
VR-HR	1SDA059823R1	

E6/f withdrawable (W) - FP	Product Hierarchy 2900003	
	4 pole	
	Order Code	Price
HR	1SDA059769R1	
VR	1SDA059777R1	
F	1SDA059785R1	
FL	1SDA059793R1	
HR-VR	1SDA059801R1	
VR-HR	1SDA059825R1	

3



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# Emax air circuit breakers

## Accessories

3

Accessories	Product Hierarchy 2900003	
	Order Code	Price
<b>Terminal for fixed parts</b>		
Kit EF FP T7-T7M-X1 3pcs	1SDA062171R1	
Kit HR/VR FP T7-T7M-X1 3pcs	1SDA063089R1	
Kit MP T7-T7M-X1 W 4p	1SDA062163R1	
Kit EF FP T7-T7M-X1 4pcs	1SDA062172R1	
Kit HR/VR FP T7-T7M-X1 4pcs	1SDA063090R1	
Kit EF T7-T7M-X1 3pcs	1SDA063103R1	
Kit FC CuAl 4x240mm <sup>2</sup> T7-T7M-X1 1250 3pcs	1SDA063112R1	
Kit F T7-T7M-X1 3pcs	1SDA063099R1	
Kit ES T7-T7M-X1 3pcs UPP	1SDA063107R1	
Kit ES T7-T7M-X1 3pcs LOW	1SDA063108R1	
Kit R T7-T7M-X1 3pcs	1SDA063116R1	
Kit HR T7-T7M-X1 3pcs	1SDA063120R1	
Kit VR T7-T7M-X1 3pcs	1SDA063124R1	
Kit EF T7-T7M-X1 4pcs	1SDA063104R1	
Kit FC CuAl 4x240mm <sup>2</sup> T7-T7M-X1 1250 4pcs	1SDA063113R1	
Kit ES T7-T7M-X1 4pcs	1SDA063091R1	
Kit R T7-T7M-X1 4pcs	1SDA063117R1	
Kit HR T7-T7M-X1 4pcs	1SDA063121R1	
Kit VR T7-T7M-X1 4pcs	1SDA063125R1	
<b>High terminal covers</b>		
HTC T7-T7M-X1 F 3p 2pcs	1SDA063091R1	
HTC T7-T7M-X1 F 4p 2pcs	1SDA063092R1	
<b>Low terminal covers</b>		
LTC T7-T7M-X1 F 3p 2pcs	1SDA063093R1	
LTC T7-T7M-X1 F 4p 2pcs	1SDA063094R1	
<b>Sliding Contact Blocks</b>		
Left sliding contact MP C.BR.T7-T7M-X1	1SDA062164R1	
Central sliding contact MP C.BR.T7-T7M-X1	1SDA062165R1	
Right sliding contact MP C.BR.T7-T7M-X1	1SDA062166R1	
Left sliding contact FP C.BR.T7M-X1	1SDA062167R1	
Central sliding contact FP C.BR.T7-T7M-X1	1SDA062168R1	
Right sliding contact FP C.BR.T7M-X1	1SDA062169R1	
<b>Left hand lock</b>	<b>Central lock</b>	<b>Right hand lock</b>
Spring charger motor	PR331	Auxiliary contacts
"Closed springs charged" contact	PR332	Shunt opening release
"Ready to close" contact		Shunt closing release
Release trip signalling		Under voltage release

# Emax air circuit breakers

## Accessories



1SDC200191 F0001

### Electrical Accessories

Shunt opening/closing release SOR/SCR		Product Hierarchy 2900003	
Breaker type	Description	Order Code	Price
E1 - E6	24V DC	1SDA038286R1	
	30V	1SDA038287R1	
	48V	1SDA038288R1	
	60V	1SDA038289R1	
	110/120V	1SDA038290R1	
	120/127V	1SDA038291R1	
	220/240V	1SDA038292R1	
	240/250V	1SDA038293R1	
	380/400V	1SDA038294R1	
	440/480V AC	1SDA038295R1	

### Undervoltage Releases UVR

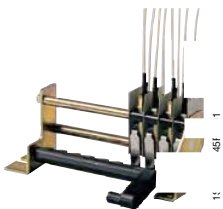
X1	UVR T7-T7M-X1 24Va.c./d.c.	1SDA062087R1	
	UVR T7-T7M-X1 30Va.c./d.c.	1SDA062088R1	
	UVR T7-T7M-X1 48Va.c./d.c.	1SDA062089R1	
	UVR T7-T7M-X1 60Va.c./d.c.	1SDA062090R1	
	UVR T7-T7M-X1 110...120Va.c./d.c.	1SDA062091R1	
	UVR T7-T7M-X1 240...250Va.c./d.c.	1SDA062092R1	
	UVR T7-T7M-X1 380...400Va.c.	1SDA062093R1	
	UVR T7-T7M-X1 415...440Va.c.	1SDA062094R1	
E1 - E6	24V DC	1SDA038306R1	
	30V	1SDA038307R1	
	48V	1SDA038308R1	
	60V	1SDA038309R1	
	110/120V	1SDA038310R1	
	120/127V	1SDA038311R1	
	220/240V	1SDA038312R1	
	240/250V	1SDA038313R1	
	380/400V	1SDA038314R1	
	440/480V AC	1SDA038315R1	



X

### Time delayed under voltage release

E1/6-T7-X1-T8	24/30V	1SDA038316R1	
	48V	1SDA038317R1	
	60V	1SDA038318R1	
	110/127V	1SDA038319R1	
	220/250V	1SDA038320R1	
E1 - E6	24V DC	1SDA038316R1	
	48V	1SDA038317R1	
	60V	1SDA038318R1	
	110/120V	1SDA038319R1	
	220/250V	1SDA038320R1	



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### Motor operator

X1	24...30Vac/dc	1SDA062113R1	
	48...60Vac/dc	1SDA062114R1	
	100...130Vac/dc	1SDA062115R1	
	220...250Vac/dc	1SDA062116R1	
	380...415Vac	1SDA062117R1	
E1 - E6	24/30V DC	1SDA038321R1	
	48/60V	1SDA038322R1	
	100/130V	1SDA038323R1	
	220/250V	1SDA038324R1	



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# Emax air circuit breakers

## Accessories

3

### Electrical Accessories cont.

Auxiliary contacts		Product Hierarchy 2900003	
Breaker type	Description	Order Code	Price
E1-E6	10 open/closed contacts	1SDA038327R1	
Automatic C/B	10 open/closed contacts 5NO+5NC	1SDA058266R1	
E1-E6 Non-auto	4 open/closed contacts	1SDA038326R1	

### Current sensor for neural conductor

E1 - E2	Iu N = 2000A	1SDA058191R1	
E3	Iu N = 3200A	1SDA058218R1	
E4/f	Iu N = 3200A	1SDA058216R1	
E6/f	Iu N = 6300A	1SDA058220R1	

### Toroidal coil for main power supply earthing conductor

E1 - E6		1SDA059145R1	
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### PR120/K signalling modules

E1 - E6	4 output with independant terminals	1SDA058255R1	
	4 output with + 1 input with common terminals	1SDA058256R1	

### PR120/V measuring modules

E1 - E6		1SDA058252R1	
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### Automatic transfer modules

E1 - E6	ATS021 DISP.COMMUT.AUT.S/D MULTI TENS	1SDA065523R1	
	ATS022 DISP.COMMUT.AUT.C/D CONT.AVM/TEN	1SDA065524R1	

### Communication modules

E1 - E6	PR120/D-M communication module	1SDA058254R1	
	PR120/D-BT bluetooth	1SDA058257R1	
	BT030-USB bluetooth	1SDA058259R1	

### Modules for PR33\_ electronic trip units

T4..T7-T8 X1-E1/6N	HMI030 display unit	1SDA063143R1	
T7	PR330/V MEASURING MOD.INT.SOC.x PR332	1SDA063144R1	
T7-T7M-X1-T8	PR330/D-M COMM.MOD.xPR332-3	1SDA063145R1	
T7-T7M-X1	PR330/R DRIVING UNIT x PR332-3	1SDA063146R1	
E1/6-T4.T8-X1	BT030-USB WIRE.EXT.MOD.BLU.	1SDA058259R1	
T7-T7M-X1	SOCKET INT.TENS.PR332 x EXT.CO	1SDA063573R1	

### Test configurator unit

XT2-XT4	Ekip TT	1SDA066988R1	
	Ekip T&P	1SDA066989R1	

### Electrical trip indicator

E1 - E6	-	1SDA058260R1	
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### Electrical trip reset

T7M-X1	110..130Vac/dc	1SDA062118R1	
	200..240Vac/dc	1SDA062119R1	
E1 - E6	220/250V	1SDA058261R1	
	100/130V	1SDA058262R1	
	24/30V	1SDA058263R1	

### Position signalling contacts

E1 - E6	5 contacts	1SDA038361R1	
E1 - E2	10 contacts	1SDA038360R1	
E3		1SDA043468R1	
E4 - E6		1SDA043470R1	



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# Emax air circuit breakers

## Accessories

### Electrical Accessories cont.

Auxiliary contacts (open/close)		Product Hierarchy 2900003	
Breaker type	Description	Order Code	Price
X1	2Q 400Va.c.	1SDA062102R1	
	2Q 24Vd.c.	1SDA062101R1	

### Auxiliary contacts signalling spring charged

X1	SC 24Vd.c.	1SDA062106R1	
	SC T7M-X1 250Vac/dc	1SDA062107R1	

### Auxiliary position contacts

X1	AUP 24Vd.c. (2INS+2TEST+2EXT)	1SDA062110R1	
	AUP 250Va.c. (2INS+2TEST+2EXT)	1SDA062111R1	

### Mechanical Accessories

#### Mechanical operation counter

X1		1SDA062160R1	
E1 - E6		1SDA038345R1	



#### Transparent pushbutton covers

X1	PUSHBUTTONS TRANS. PROTECTION T7M-X1	1SDA062132R1	
	PUSHBUTTONS TRANS. PROTECTION IND.T7M-X1	1SDA062133R1	
X1	IP54 Protection	1SDA062161R1	

#### Lock in open position

E1 - E6	for 1 circuit breaker (different keys)	1SDA058271R1	
	for groups circuit breakers (same key)	1SDA058270R1	
	Padlock 4mm	1SDA038351R1	
	Padlock 6mm	1SDA064504R1	

#### Padlock lever

X1	PLL	1SDA062152R1	
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#### Key lock in open position on the circuit breaker - KLC

X1	KLC Key lock service operation.	1SDA063562R1	
	KLC-S Key lock EQ.N.20005	1SDA063563R1	
	KLC Key lock Castell	1SDA062147R1	
	KLC Key lock Kirk	1SDA062148R1	
	KLC Key lock Ronis	1SDA062149R1	

#### Circuit breaker lock in test and racked positions

X1	KLF-D-FP Key lock SEV.CON/ISOL	1SDA062153R1	
	KLF-S-FP Key lock 20005 CON/IS	1SDA062154R1	
E1 - E6	for 1 circuit breaker (different keys)	1SDA058277R1	
	for groups circuit breakers (same key)	1SDA058278R1	
	padlock for shutters	1SDA038363R1	
	Castell lock ref PDS 01388 adapter	1SDA058275R1	
	Protective cover for opening and closing pushbutton	1SDA038343R1	



Full range of product and technical information place this part number in a search engine and download

1SDC200009D0203

# Emax air circuit breakers

## Accessories

### Mechanical Accessories cont.

Accessory for lock only in racked-out position		Product Hierarchy 2900003	
Breaker type	Description	Order Code	Price
T7-T7M-X1		1SDA062158R1	
<b>Interlocks</b>			
T7-T7M-X1	Kit cable mech interlock HR/VR	1SDA062127R1	
	Plate mech interlock, wall fixed	1SDA062129R1	
	Plate mech interlock, floor fixed	1SDA062130R1	
	Plate mech interlock with FP	1SDA062131R1	
E1 - E2	*3 pole & 4 pole	1SDA038366R1	
E3		1SDA038367R1	
E4	*3 pole	1SDA038368R1	
	*4 pole	1SDA043466R1	
E6	*3 pole	1SDA043466R1	
	*4 pole	1SDA038369R1	
E1 - E6	**Horizontal 2 cables -A-	1SDA038329R1	
	**Horizontal 3 cables -B-	1SDA038330R1	
	**Horizontal 3 cables -C-	1SDA038331R1	
	**Horizontal 3 cables -D-	1SDA038332R1	
	**Vertical 2 cables -A-	1SDA038333R1	
	**Vertical 3 cables -B-	1SDA038334R1	
	**Vertical 3 cables -C-	1SDA038335R1	
	**Vertical 3 cables -D-	1SDA038336R1	
	**Plate for interlocking fixed circuit breakers	1SDA038358R1	
	*Accessory for interlock withdrawable fixed portion -ABC	1SDA038364R1	
*Accessory for interlock withdrawable fixed portion -C	1SDA038365R1		

- \* To be ordered with each fixed circuit breaker or moving part of withdrawable circuit breaker
- \*\* To be ordered only once for each combination of interlocked circuit breakers

# Switchgear



## Switch disconnectors

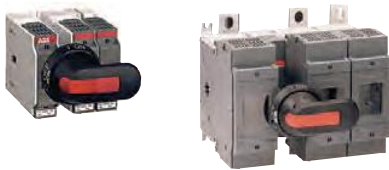
Overview .....	4/2
OT16...3150 disconnectors.....	4/6
OT16...3150 accessories .....	4/10



**New**  
OTM 40

## Changeover & transfer switches

Overview .....	4/24
OT...C16...2500 manual changeover switches.....	4/28
OTM40...2500 motorised changeover switches .....	4/31
OT160...1600 automatic changeover switches.....	4/38
OT & OTM16...2500 accessories .....	4/41



## Switch fuses

Overview .....	4/46
OS16...1250 switch fuses .....	4/50
OS16...1250 accessories .....	4/58
BS88 fuses.....	4/67




## Slimline switch fuses

Slimline switch fuses .....	4/69
-----------------------------	------



## Cam switches

Cam switches open type.....	4/70
-----------------------------	------

<p>OT switch disconnectors</p>	<p>Switch fuses</p>	<p>Changeover switches</p>
 <p>Full range of product and technical information place this part number in a search engine and download</p> <p>1SEC301001C0201</p>	 <p>Full range of product and technical information place this part number in a search engine and download</p> <p>1SCC311013C0201</p>	 <p>Full range of product and technical information place this part number in a search engine and download</p> <p>1SCC303003C0201</p>
<p>XR SlimLine switch fuses</p>	<p>Cam switches</p>	
 <p>Full range of product and technical information place this part number in a search engine and download</p> <p>1SEC311001C0201</p>	 <p>Full range of product and technical information place this part number in a search engine and download</p> <p>1SCC302003C0201</p>	



# OT switch disconnectors 16 ... 3150 A 690V

## Manual operation



4

IEC	OT16F	OT63F	OT100F	OT160E	OT160EV	OT315E
	OT25F	OT80F	OT125F		OT200E	OT400E
	OT40F				OT250E	
UL	OT16F	OT63F	OT30F	OT160E		OT200U
	OT25F	OT80F	OT60F			
	OT40F		OT100F			

Switch size	16 25 40	63 80	30 60 100 125	160	160 200 250	200	315 400
IEC $I_{in}$ [A]	25 32 40	63 80	115 125	200	200 200 250		315 400
$I_n$ /AC22A ? 415V [A]	16 25 40	63 80	100 125	160	200 200 250		315 400
$I_n$ /AC23A ? 415V [A]	16 20 23	45 75	80 90	135	200 200 250		315 400
UL Ampere rating [A]	20 30 40	60 80	30 60 100	100		200	

## Motor operation



IEC		OTM160E	OTM315E
		OTM200E	OTM400E
		OTM250E	

Switch size [A]	160 200 250	315 400
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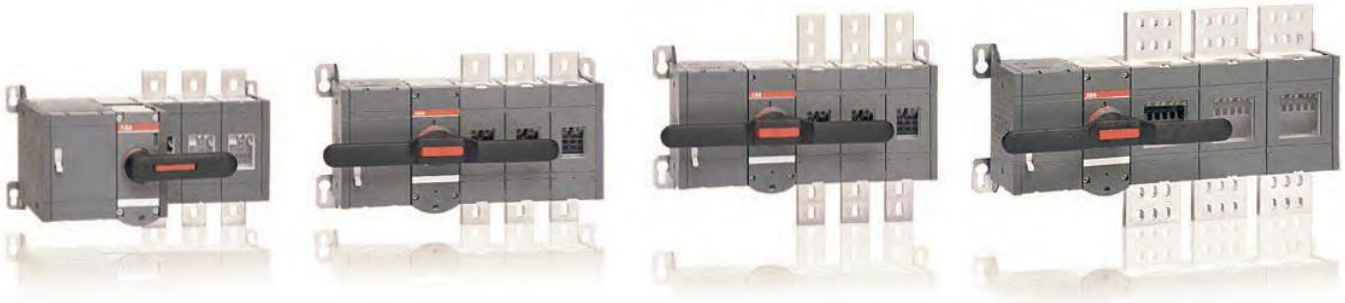
**Accessories**

Optional handles	N & PE terminals
Extended shafts	Terminal shrouds
Legend plates	Connecting accessories
Auxiliary contacts	Conversion kits
Fourth poles	Locking accessories
	Motor operators



	OT630E	OT1000E	OT2000E	OETL3150K
	OT800E	OT1250E	OT2500E	
		OT1600E		
OT400U	OT600U	OT800U		OETL-NF1600
		OT1200U		OETL-NF2000

400	600 630 800	800 1000 1200 1250 1600	2000 2500	1600 2000 3150
	630 800	1000 1250 1600	2000 2500	3150
	630 800	1000 1250 1600	2000 2500	
	630 800	1000 1250 1600		
400	600	800 1200		1600 2000



	OTM630E	OTM1000E	OTM1600E	OTM2000E
	OTM800E	OTM1250E		OTM2500E
	630 800	1000 1250	1600	2000 2500

# Enhanced range of switch-disconnectors From 16 to 3150 A, 690 V

4

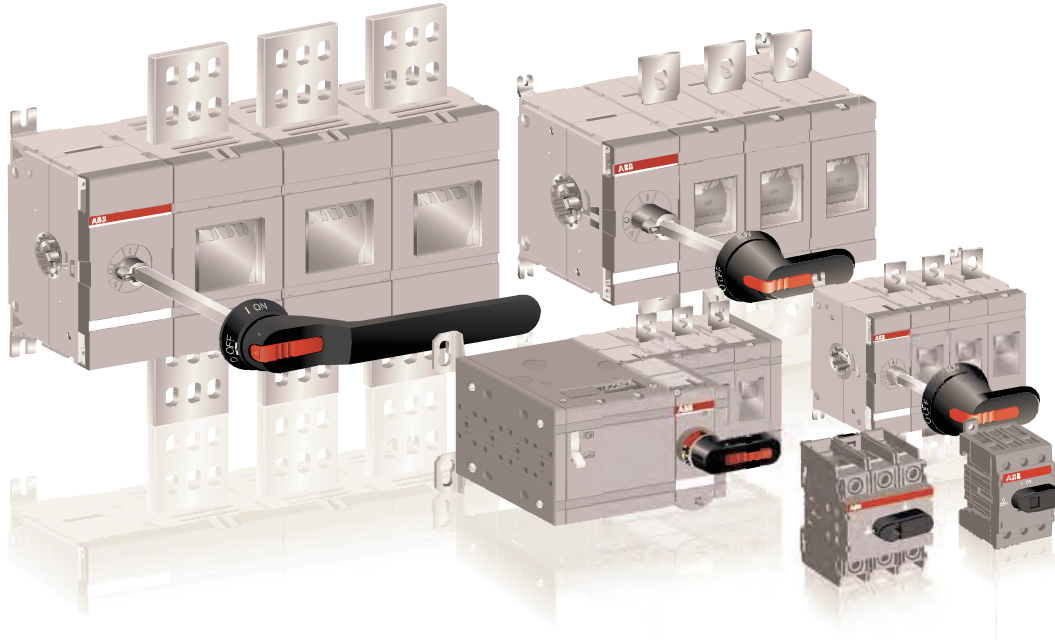


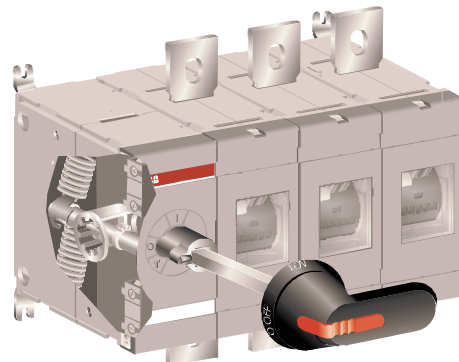
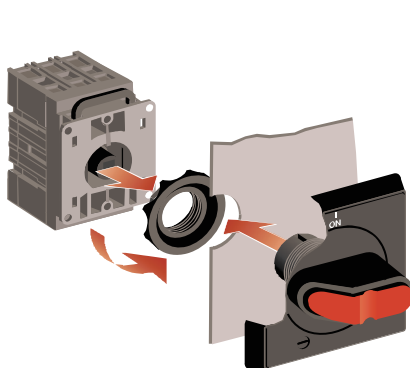
ABB switch-disconnectors are suitable for diverse applications, in motor control centers, in switchboards and as main switches in various equipment and machines. From single to 8-poles front operated switches with pistol handle or direct mounted handle. For installation in enclosures, side operated switches, switches with wide phase distance and combination switches for change-over, bypass, reversing etc.

- Mountable on DIN rails or base plates and on the door, both by snap-on and screw fitting
- Snap-on mounting of accessories
- Motorized switch-disconnectors OTM are suitable for remote control

## The most compact disconnect (isolation) solution

Optimally designed, the OT switch-disconnector offers an advanced and compact solution, providing you with added value.

- The new double-sided spring construction in combination with fewer components made an innovative and compact design of the operation mechanism possible.
- The uniquely short current path enabled a small-sized contact construction.



ABB's switch-disconnector range meets disconnect and isolation requirements more effectively than ever, maximizing the benefits and optimizing your use of assets.

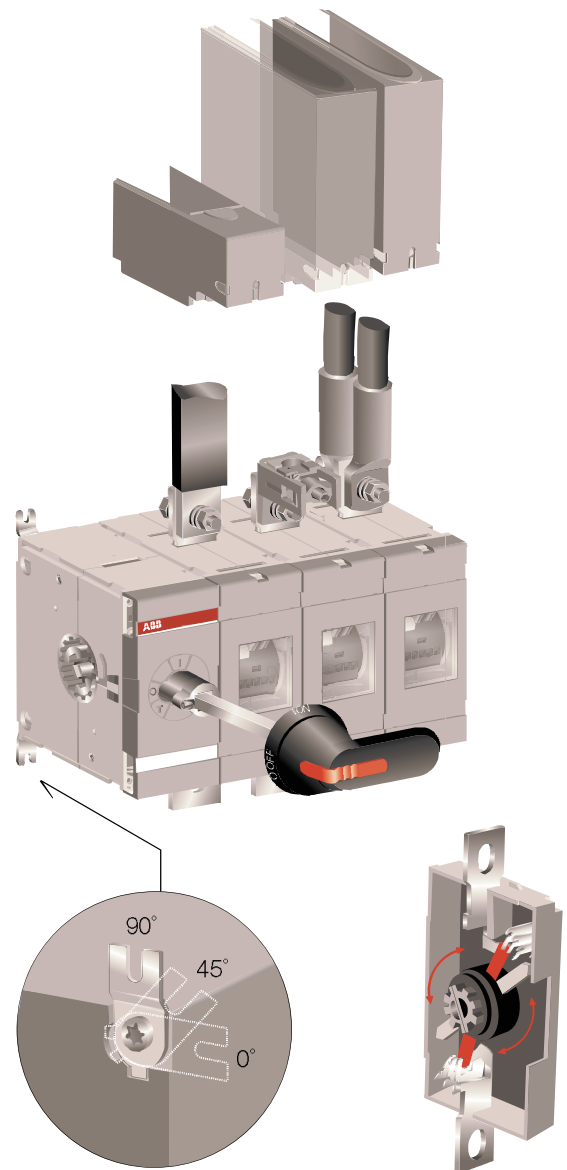
**High performance despite the small size**

The powerful construction, with its quick-make and quick-break operation features and two contact points instead of one, adds value to and enhances the performance of the switch-disconnectors.

- The OT range offers you improved power ratings. Full  $I_{th}$  ratings can be used both in open air and in enclosures, without having to derate or enlarge the box.
- User-friendly and flexible, the OT switch-disconnector provides you with full AC-23A current ratings for all the voltages, even up to 690 V.

The OT switch-disconnector is easy to use and easy to install according to your choice: horizontally or vertically - even in the ceiling! The adjustable mounting feet allow both top and side mounting of the switch.

ABB's switch-disconnector range meets disconnect and isolation requirements more effectively than ever, maximizing the benefits and optimizing your use of assets.



# Switch disconnectors

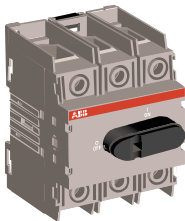
## OT16 ...160 base mounted



OT16...32E3



OT 45...63E3



OT 100...125E3

4

### Front operated switch-disconnectors, base and DIN-rail mounting

#### OT 16...160

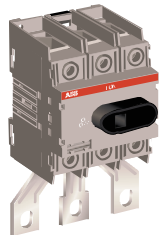
Including protected terminal clamps, IP20. Handle and shaft have to be ordered separately.

No of Poles	$I_{th}$ (open) [A]	Cable Cross Section mm <sup>2</sup>	Operational Currents AC22A/AC23A 400V	Shaft Diameter mm	Product Hierarchy 2200003	
					Order Code	Price
3	25	0.75...10	16/16	6	OT16F3	
4					OT16F4N2	
3	32		25/20		OT25F3	
4					OT25F4N2	
3	40		40/23		OT40F3	
4					OT40F4N2	
3	80	1.5...35	80/75	OT63F3		
4				OT63F4N2		
3	100		80/75	OT80F3		
4				OT80F4N2		
3	115		100/80	OT100F3		
4				OT100F4N2		
3	125	10...70	125/90	OT125F3		
4				OT125F4N2		
3	160	200/135	200/135	OT160E3		
4				OT160E4		

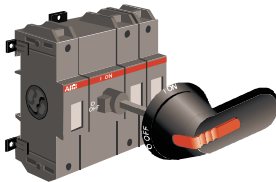
### Front operated, 6- and 8- pole switch-disconnectors

Including protected terminal clamps, IP20

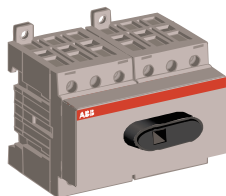
Suitable Shaft Diameter mm	$I_{th}$ (open) [A]	Cable Cross Section [mm <sup>2</sup> ]	Operational Currents AC22A/AC23A 400V	Product Hierarchy 2200003	
				Order Code	Price
6-pole					
6	25	0.75...10	16/16	OT16F6	
6	32		25/20	OT25F6	
6	40		40/23	OT40F6	
6	63	1.5...35	63/45	OT63F6	
6	80		80/75	OT80F6	
6	115	10...70	100/80	OT100F6	
6	125		125/90	OT125F6	
8-pole					
8	25	0.75...10	16/16	OT16F8	
8	32		25/20	OT25F8	
8	40		40/23	OT40F8	
8	63	1.5...35	63/45	OT63F8	
8	80		80/75	OT80F8	
8	115	10...70	100/80	OT100F8	
8	125		125/90	OT125F8	



OT125E3



OT 160E3



OT 16 - 40F6



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# Switch disconnectors

## OT200 ... 800 base mounted



OT160EV03P



OT200E04P



OT315E03P



OT315E04P



OT630E04P

### Front operated switch-disconnectors, with pistol handle

#### OT 200...800E

Including a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.

No of Poles	I <sub>n</sub> (open) [A]	Operational Currents AC22A/AC23A 400V	Product Hierarchy 2200003	
			Order Code	Price
3	200	200/160	OT160EV03P	
4			OT160EV04P	
3			OT160EV12P	
4			OT160EV22P	
3	200	200/200	OT200E03P	
4			OT200E04P	
3			OT200E12P	
4			OT200E22P	
3	250	250/250	OT250E03P	
4			OT250E04P	
3			OT250E12P	
4			OT250E22P	
3	315	315/315	OT315E03P	
4			OT315E04P	
3			OT315E12P	
4			OT315E22P	
3	400	400/400	OT400E03P	
4			OT400E04P	
3			OT400E12P	
4			OT400E22P	
3	630	630/630	OT630E03P	
3+N			OT630E03N3P	
4			OT630E04P	
3			OT630E12P	
4	OT630E22P			
3	800	800/800	OT800E03P	
3+N			OT800E03N3P	
4			OT800E04P	
3			OT800E12P	
4	OT800E22P			

4

#### Shafts & handles included as standard

Suitable for switches	Included shaft	Included handle	Included terminal bolts
OT160EV...250_P	OX P6X210	OHB65J6	M 8x25
OT315...400_P	OX P12X185	OHB95J12	M 10x30
OT630...800_P	OX P12X185	OHB125J12	M 12x40



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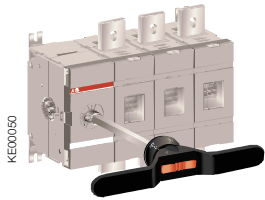
# Switch disconnectors

## OT1000 ...1600 & OETL 2500 ... 3150 base mounted

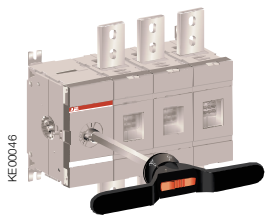
### Front operated switch-disconnectors

#### OT 1000...1600 & OETL 2500...3150

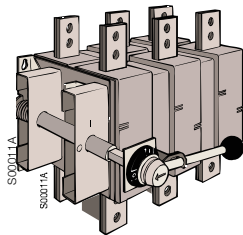
Including standard terminal bolt kit, a black ON-OFF plastic handle OHB200J12P and shaft OXP12x280 as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.



OT1000 - 1250\_03P



OT1600\_03P



OETL2500 - 3150K3

4

No of Poles	$I_{th}$ (open) [A]	AC22A/AC23A 400V	Product Hierarchy 2200003	
			Order Code	Price
3	1000	1000/1000	OT1000E03P	
3+N			OT1000E03N3P	
4			OT1000E04P	
3			OT1000E12P	
4			OT1000E22P	
3			1250	1250/1250
3+N	OT1250E03N3P			
4	OT1250E04P			
3	OT1250E12P			
4	OT1250E22P			
3	1600	1600/1250		
3+N			OT1600E03N3P	
4			OT1600E04P	
3			OT1600E12P	
4			OT1600E22P	
3			2000	2000/-
3+N	OT2000E03N3P			
4	OT2000E04P			
3	OT2000E12P			
4	OT2000E22P			
3	2500	2500/-		
3+N			OT2500E03N3P	
4			OT2500E04P	
3			OT2500E12P	
4			OT2500E22P	
3			3150	1600/-
3	OETL3150K185			
4	OETL3150K4			
3	OETL3150K3-4			
3	OETL3150KV12			
4	OETL3150KV22			

Including an IP54 metallic handle with I-O indication. Padlockable in the O-position

### Shafts & handles included as standard

Suitable for switches	Included shaft	Included handle	Included terminal bolts
OT1000...1250_P	OXP12X280	OHB274J12P	M12X50
OT1600_P	OXP12X280	OHB274J12P	M12X60
OT2000...2500_P	OXP12X280	OHB274J12P	M12X60
OETL3150	OXP12X325	YASDA7	M12X60



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# Switch disconnectors accessories

## Operating handles



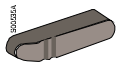
OHB 1



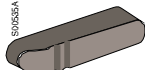
OHR 2



OHR 3



OHB 9



YAST 1

### Optional handles for front operated, base & DIN-rail mounted switches

Handle knobs, mounting directly to the switch, no shaft needed

Colour	Handle Length mm	Suitable for switch	Product Hierarchy 2200003	
			Order Code	Price
Black	31	OT16...80F3/F4	OHBS1	
Red			OHR1	
Black	37	OT16...40F3/F4	OHBS12	
Red			OHR12	
Black	40	OT63...125F3/F4	OHBS2	
		OT16...40F6/F8		
Red		OT63...40F6/F8		
		OT16...40F6/F8	OHR2	
Black	39	OT63...125F3/F4	OHBS3	
		OT16...40F6/F8		
Red		OT63...40F6/F8	OHR3	
		OT16...40F6/F8	OHR3	
Black	72	OT63...125F6/F8	OHBS9	
			OHR9	
Red			OHR9	
			OHR9/1	
Black		OT160E	YAST1	



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# Switch disconnectors accessories

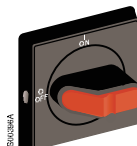
## Operating handles



OH\_1\_



OH\_3\_



OH\_2\_

4

### Optional handles for base & DIN-rail mounted switches

For shaft diameter 6mm, door drilling 22.5mm. The type and the ordering numbers are one piece

		Product Hierarchy 2200003	
Colour	Suitable for switch	Order Code	Price
IP54 handles, NEMA 1			
Black	OT16...80F	OHBS1AH	
Yellow/Red		OHYS1AH	
Silver		OHSS1AH	
Grey		OHGS1AH	
IP54 handles door interlock in ON position			
Black	OT16...80F	OHBS1AH1	
Yellow/Red		OHYS1AH1	
Silver		OHSS1AH1	
Grey		OHGS1AH1	
IP54 handles padlockable with one padlock with bail diameter 5...6.3mm, NEMA 1			
Black	OT16...125F	OHBS3AH	
Yellow/Red		OHYS3AH	
Silver		OHSS3AH	
Grey		OHGS3AH	
IP65 handles padlockable with max. 3 padlocks with bail diameter 5...8mm, door interlocked in ON position, defeatable, NEMA 1, 3R, 12			
Black	OT16...125F	OHBS2AJ	
Yellow/Red		OHYS2AJ	
Grey		OHGS2AJ	
IP65 handles padlockable with max. 3 padlocks with bail diameter 5...8mm, door interlocked in ON position, NEMA 1, 3R, 12			
Black	OT16...125F	OHBS2AJ1	
Yellow/Red		OHYS2AJ1	
Silver		OHSS2AJ1	
Grey		OHGS2AJ1	
IP65 handles with metal hasp padlockable with max. 3 padlocks door interlocked in ON position, defeatable NEMA 1, 3R, 12			
Black	OT16...125F	OHBS2AJEH1	

### Round padlockable handles

Padlockable in O-position, max. 3 padlocks with 8mm hasp diameter.

		Product Hierarchy 2200003	
Colour	Suitable for switch	Order Code	Price
One hole mounting handle, IP65, NEMA 4X outdoor, size 66x66			
Black	OT16...125F	OZ331SPB	
Yellow/Red		OZ331SPRY	
IP67, IP69K, NEMA 4X outdoor, size 66x66			
Black	OT16...80F	OZ331P67B	
Yellow/Red		OZ331SPRY	
Handles with door coupling in ON-position, not defeatable, IP65, NEMA 4X outdoor, size 66x66			
Black	OT16...125F	OZ371PB	
Yellow/Red		OZ371PRY	



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# Switch disconnectors accessories

## Operating handles

### Optional handles, base & DIN-rail mounted switches

#### Pistol type handles

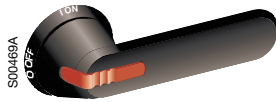
OH\_handles: IP65, NEMA 1, 3R, 12, padlockable with three padlocks in OFF-position, door interlock in ON-position. Screw fixing from the back side of the handle. No screws on the front ensures double insulation. The type and the ordering numbers are for one piece.



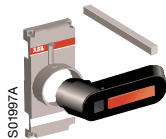
OHY\_



OHB\_



OHB\_



OTV\_



OHB\_



Full range of product and technical information place this part number in a search engine and download  
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			Product Hierarchy 2200003	
Colour	Handle Length [mm]	Suitable for switches	Order Code	Price
For shaft diameter 5mm, indication in type OHB & OHY: I-O, ON-OFF, in types OHG: I-O				
Black	45	OT16...125F	OHB45J6	
Yellow-Red			OHY45J6	
Grey			OHG45J6	
For shaft diameter 6mm, indication in types OHB & OHY: I-O, ON-OFF, in types OHG: I-O				
Black	65	OT160...250	OHB65J6	
Yellow-Red			OHY65J6	
Grey			OHG65J6	
Black	80	OT160...250	OHB80J6	
Yellow-Red			OHY80J6	
Grey			OHG80J6	
For shaft diameter 6mm, indication: Test-OFF-ON/Test-O-I				
Black	65	OT200...250	OHB65J6T	
Yellow-Red			OHY65J6T	
For shaft diameter 12mm, indication in types OHB & OHY: I-O, ON-OFF, in types OHG: I-O				
Black	95	OT315...400	OHB95J12	
Yellow-Red			OHY95J12	
Grey			OHG95J12	
Black	125	OT630...800	OHB125J12	
Yellow-Red			OHY125J12	
Grey			OHG125J12	
Black	145	OT630...800	OHB145J12	
Yellow-Red			OHY145J12	
Grey			OHG145J12	
Black	274	OT1000...2500	OHB274J12	
Yellow-Red			OHY274J12	
Black	330	OT1000...2500	OHB330J12	
Yellow-Red			OHY330J12	
Black	2x150	OT1000...2500	OHB150J12P	
Yellow-Red			OHY150J12P	
Black	2x200	OT1000...2500	OHB200J12P	
Yellow-Red			OHY200J12P	
Black	2x75	OETL3150	OHB275J12	
Yellow-Red			OHY275J12	
Grey			OHG275J12	
For shaft diameter 12mm, indication: Test-OFF-ON/Test-O-I				
Black	95	OT315...400	OHB95J12T	
Yellow-Red			OHY95J12T	
Black	125	OT630...800	OHB125J12T	
Yellow-Red			OHY125J12T	
Black	145	OT630...800	OHB145J12T	
Yellow-Red			OHY145J12T	
Black	175	OT630...800	OHB175J12T	
Yellow-Red			OHY175J12T	
Black	274	OT1000...2500	OHB274J12T	
Yellow-Red			OHY330J12T	
Black	2x200	OT1000...2500	OHB200J12PT	
Yellow-Red			OHY200J12PT	

• Door interlocking in ON-position means that the door can not be opened, when the handle is in the ON-position. This can be defeated in IP65 types to allow authorised personnel access for inspection

• NEMA 4, 4x pistol handles available on request  
• Handles padlockable in all positions available on request

# Switch disconnectors accessories

## Operating handles

### Pistol type handles

Colour	Handle Length [mm]	Suitable for switches	Product Hierarchy 2200003	
			Order Code	Price
For shaft diameter 12mm, indication: I-O-II				
Black	275	OETL3150	OHB275J12E011	
Yellow-Red			OHY275J12E011	
Black			OHG275J12E011	

### Handles for direct mounting

Indication Test-OFF-ON/Test-O-I. Padlockable with three padlocks in OFF-position. Includes shaft & mechanism cover

Colour	Handle Length [mm]	Suitable for switches	Order Code	Price
Black	65	OT160EV...250_K	OTV250EK	
Yellow-Red			OTVY250EK	
Black	95	OT315...400_K	OTV400EK	
Yellow-Red			OTVY400EK	
Black	125	OT630...800_K	OTV800EK	
Yellow-Red			OTVY800EK	
Black	274	OT1000...2500_K	OTV1000EK	
Yellow-Red			OTV1000EPK	
	2x200			

### Selector type handles

Indication I-O and ON-OFF. No separate shaft needed. The type and the ordering numbers are for one piece.

Colour	Suitable for switches	Order Code	Price
Snap-on mounting, door drilling 22.5mmø. No padlocking, IP54 NEMA 1			
Black	OT16...40FT	OHBS1PH	
Yellow-Red		OHYS1PH	
Silver		OHSS1PH	
Grey		OHGS1PH	
Padlockable with one padlock, IP54 NEMA 1			
Black	OT16...40FT	OHBS3PH	
Yellow-Red		OHYS3PH	
Silver		OHSS3PH	
Grey		OHGS3PH	
Padlockable with 3 padlocks, IP65 NEMA, 1, 3R, 12			
Black	OT16...40FT	OHBS2PJ	
Yellow-Red		OHYS2PJ	
Silver		OHSS2PJ	
Grey		OHGS2PJ	
Screw mounting, hole distance 36mm, No padlocking, IP54 NEMA 1			
Black	OT16...80FT	OHBS1RH	
Yellow-Red		OHYS1RH	
Silver		OHSS1RH	
Grey		OHGS1RH	
Padlockable with one padlock, IP54 NEMA 1			
Black	OT16...80FT	OHBS3RH	
Yellow-Red		OHYS3RH	
Silver		OHSS3RH	
Grey		OHGS3RH	
Padlockable with 3 padlocks, IP65 hole distance 36/48mm NEMA, 1, 3R, 12			
Black	OT16...125FT	OHBS2RJ	
Yellow-Red		OHYS2RJ	
Silver		OHSS2RJ	
Grey		OHGS2RJ	

4

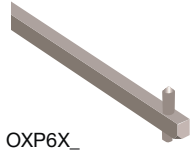


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# Switch disconnectors accessories

## Extended shafts

### Extended shafts 6mm

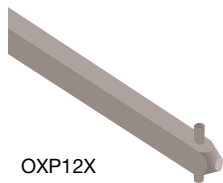


OX6X\_

Shaft length	H [mm]	Suitable for switches	Product Hierarchy 2200003	
			Order Code	Price
<b>Selector type handles for shaft diameter 6mm</b>				
85	see dimension drawings	OT16...125F	OXS6X85	
105			OXS6X105	
120			OXS6X120	
130			OX6X130	
160			OXS6X160	
180			OXS6X180	
250			OXS6X250	
330			OXS6X330	
<b>Round padlockable type handles for shaft diameter 6mm</b>				
60	see dimension drawings	OT16...125F	OXS6X60	
85			OXS6X85	
105			OXS6X105	
115			OXS6X115	
130			OXS6X130	
155			OXS6X155	
200			OXS6X200	
300			OXS6X300	
<b>Pistol type handles shaft diameter 6mm</b>				
150	see dimension drawings	OT16...125F	OX6X150	
170			OX6X170	
265			OX6X265	
400			OX6X400	
<b>Shaft diameter 6mm</b>				
130	105...135	OT160E	OX6X130	
150	125...155		OX6X150	
210	185...215		OX6X210	
130	109...174	OT160EV ... 250	OX6X130	
150	129...194		OX6X150	
161	140...205		OX6X161	
210	189...254		OX6X210	
290	269...334		OX6X290	

4

### Extended shafts 12mm



OX12X

Shaft diameter 12mm			Order Code		
166	146...226	OT315 ...400	OX12X166		
185	165...245		OX12X185		
250	230...310		OX12X250		
280	260...340		OX12X280		
325	305...385		OX12X325		
395	445...525		OX12X395		
495	439...519		OX12X465		
535	515...595		OX12X535		
250	230...345		OT630...800	OX12X250	
280	260...375			OX12X280	
325	305...420	OX12X325			
395	375...490	OX12X395			
465	445...560	OX12X465			
535	515...630	OX12X535			
250	221...350	OT1000...2500	OX12X250		
185	251...380		OX12X280		
250	296...425		OX12X325		
280	366...495		OX12X395		
325	436...565		OX12X465		
395	506...635		OX12X535		
325	340...535	OTEL3150	OX12X325		
395	410...605		OX12X395		
465	480...675		OX12X465		
535	550...745		OX12X535		



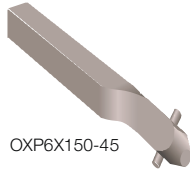
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# Switch disconnectors accessories

## Extended shafts

### Extended shafts

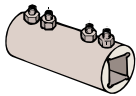
Twisted shafts for pistol type handles, the shaft position is rotated 45 degrees.



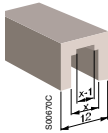
OXP6X150-45



OHZX10



OETLZX 95,  
OESAZX 167



OETL ZK 19  
(x = 6 mm)

4

Shaft length	H [mm]	Suitable for switches	Product Hierarchy 2200003	
			Order Code	Price
<b>Pistol type handle shaft diameter 6mm</b>				
150	see dimension drawings	OT16...125F	OXP6X150-45	
170			OXP6X170-45	
265			OXP6X265-45	
400			OXP6X400-45	
<b>Shaft diameter 6mm</b>				
130	109...174	OT160EV...250	OXP6X130-45	
150	129...194		OXP6X150-45	
210	189...254		OXP6X210-45	
290	269...334		OXP6X290-45	
<b>Shaft diameter 12mm</b>				
250	230...310	OT315...400	OXP12X250-45	
280	260...340		OXP12X280-45	
325	305...385		OXP12X325-45	
395	445...525		OXP12X395-45	
465	439...519		OXP12X465-45	
535	515...595		OXP12X535-45	
<b>Shaft diameter 12mm</b>				
250	226...355	OT1000...2500	OXP12X250-45	
280	256...385		OXP12X280-45	
325	301...430		OXP12X325-45	
395	371...500		OXP12X395-45	
465	441...570		OXP12X465-45	
535	511...640		OXP12X535-45	
<b>Shaft diameter 12mm</b>				
325	340...535	OETL3150	OXP12X325-45	
395	410...605		OXP12X395-45	
465	480...675		OXP12X465-45	
535	550...745		OXP12X535-45	

### Shaft alignment ring

Improves the handle operation if a handle and a shaft have been poorly aligned.

Type	Colour	Order Code	Price
For pistol type handle OH_45...275J5...12	Black	OHZX10	
For selector type handles OH_1...3		OHZX11	
For round padlockable handle OZG71P		OZG71	

### Shaft extension socket

For extending the shaft of combination attachment

Shaft Diameter [mm]	Order Code	Price
6	OESAZX167	
12	OETLZX95	

### Adapter for extension socket

The adapter can be placed inside the extension socket OETLZX95

Shaft Diameter [mm]	Order Code	Price
6	OETLZK19	



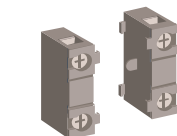
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# Switch disconnectors accessories

## Auxiliary contacts

### Auxiliary contact blocks, IP20

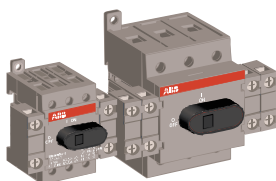
Contact numbering according to EN50013



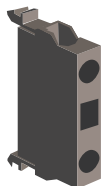
OA1G01



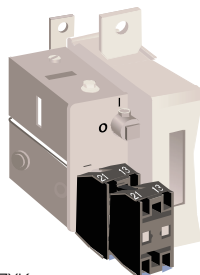
OA1G10



Auxiliary contacts - mounted on both sides of the switch



OBEA\_



OZXK\_

#### Product Hierarchy 2200001

Suitable for switches	Function	Order Code	Price
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#### Aux Contacts for snap-on mounting to the side of the switch OT 16...125F\_ , ET\_

$I_{th} = 16A$ , cable cross section max.  $2 \times 2.5 \text{ mm}^2$ . Early-break type OA1G10

Mountable on left side, max. 2 pcs

OT 16...125F_ , ET_	Function	Order Code	Price
	1NC	OA1G01	
	1NC	OA1G01AU <sup>1)</sup>	

#### Aux Contacts for mounting on the right side, max. 2 pcs OT 16...125F\_ , ET

OT 16...125F_ , ET_	Function	Order Code	Price
	1NO	OA1G10	
	1NO	OA1G10AU <sup>1)</sup>	

#### Aux Contacts for mounting on both sides OT 16...125F

OT 16...32: max. 2NO+2NC, OT45...125: max. 4NO+4NC<sup>3)</sup>

OT 16...125F_	Function	Order Code	Price
	1NO+1NC	OA2G11 <sup>2)</sup>	

#### Aux Contacts for mounting with adapter to the side of the switch OT16\_ , ET\_

$I_{th} = 16A$ , cable cross section max.  $2 \times 2.5 \text{ mm}^2$ . Mounting with the adapter OAZX1, max. 2 blocks/side.

OT160E_ , ET_	Function	Order Code	Price
	1NO+1NC	OA2G11	

#### Aux Contacts for mounting with adapter on top of the switch OT160E

$I_{th} = 10A$ . Cable cross section  $0.5 \text{ mm}^2 \dots 2 \times 2.5 \text{ mm}^2$ . Insulation voltage  $U_i 690V$ . Mounting with the adapter OEZNP1, max. 6 aux. blocks. Early break type.

OT160E_	Function	Order Code	Price
	1NO	OBEA10	
		OBEA10AU <sup>1)</sup>	
	1NC	OBEA01	
		OBEA01AU <sup>1)</sup>	

#### Aux Contacts for mounting on the left side of the switch OT160EV...2500

Max. 8 auxiliary contact blocks with the OEA28 module

OT160EV...2500	Function	Order Code	Price
	1NO	OA1G10	
		OA1G10AU	
	1NC	OA3G01	
		OA3G01AU <sup>1)</sup>	

#### Aux Contacts for mounting on the mechanism cover OETL3150

$I_{th} = 10A$ . Cable cross section  $0.5 \text{ mm}^2 \dots 2 \times 2.5 \text{ mm}^2$ . Insulation voltage  $U_i 690V$ . Early break type.

OETL3150	Function	Order Code	Price
	1NO+1NC	OZXK1	
	2NO+2NC	OZXK2	
	4NO+4NC	OZXK3 <sup>5)</sup>	
	2NO	OZXK4	
	4NO	OZXK5	
	8NO	OZXK6 <sup>6)</sup>	

<sup>1)</sup> Types \_AU are gold plated for extremely difficult circumstances and low voltages.

<sup>2)</sup> Not mountable on the same side as the fourth pole.

<sup>3)</sup> Contact numbering:

(83) (43) (53) 13                      21 (61) (31) (71)  
(84) (44) (54) 14                      22 (62) (32) (72)

<sup>4)</sup> Auxiliary contacts OA1G\_ are available in larger packing as well. A bulk package includes 50 switches. Type number: add a suffix: /B, e.g. OA1G01/B.

<sup>5)</sup> 8 NO + 8 NC auxiliary contacts = 2 x OZXK 3

<sup>6)</sup> 16 NO auxiliary contacts = 2 x OZXK 6

Early break type auxiliary contacts means that in the switches, the NO aux.contacts break before the main contacts open.





# Switch disconnectors accessories

## Auxiliary contacts

### Mounting Accessories for Auxiliary contacts

		Product Hierarchy 2200001	
		Order Code	Price
<b>Adapter for OA2G11 with OT160E</b> Max. two blocks/side. Mountable on either side of the switch.		OT160E_,ET_	OAZX1
<b>Adapter for OBEA_ with OT160E</b> Mountable on top of switch		OT160E	OEZNP1
<b>Numbering stickers for aux contact blocks OBEA</b> Required if several blocks are used.		OBEA10 1NO	OBEAZX10
		OBEA01 1NC	OBEAZX01
<b>Module for aux contacts for OT160EV...2500</b> Screw mounting on left side of switch		OT160EV...2500	OEA28

4

For OA1G_, OA2G_, OA3G_							For OBEA_ and OZKK_			
Ue/[V]	AC15 Ie/[A]	Ue/[V]	DC12 Ie/[A] P/[W]		DC13 Ie/[A] P/[W]		AC12 Ue/[V] Ie/[A]		DC12 Ue/[V] Ie/[A]	
230	6	24	10	240	2	50	120	8	125	1.1
400	4	72	4	290	0.8	60	240	6	250	0.55
415	4	125	2	250	0.55	70	400	4	440	0.31
690	2	250	0.55	140	0.27	70	415	4	500	0.27
		440	0.1	44			480	3	600	0.2
							500	3		
							690	2		



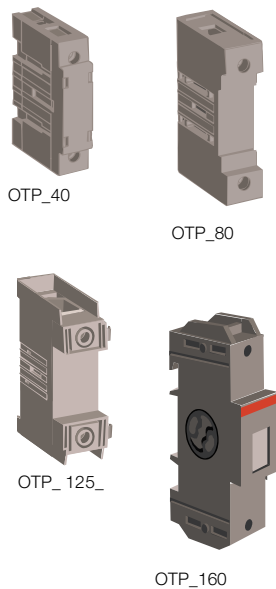
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# Switch disconnectors accessories

## 4th Poles, neutral & earth terminals

### Fourth poles

Mountable on the side of the switch.

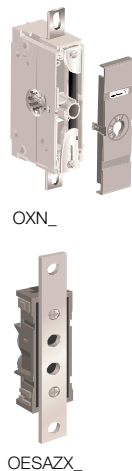


Suitable for switches	Function	Product Hierarchy 2200001	
		Order Code	Price
<b>Simultaneous function with the main contacts</b>			
OT16...40F3		OTPS40FPN1	
OT63...80F3		OTPS40FPN2	
OT100...125F3		OTPS80FP	
OT16...40FT3		OTPS125FP	
OT63...80FT3		OTPS40FDN1	
OT100...125FT3		OTPS40FDN2	
OT160E3, ET3		OTPS80FD	
OT160EV...250		OTPS125FD	
OT315...400		OTZNA1-160E4	
OT630...800		OTPS160EP	
OT1000...1250		OTZ250E	
OT1600		OTZ400E	
OT2000...2500		OTZ800E	
			OTZ1250E
		OTZ1600E	
		OTZ2500E	
<b>Late-break and early-make</b>			
OT16...40F3		OTPL40FP	
OT63...80F3		OTPL80FP	
OT100...125F3		OTPL125FP	
OT16...40F3		OTPL40FD	
OT63...80F3		OTPL80FD	
OT100...125F3		OTPL125FD	

4

### Neutral & earth terminals

Mountable on the side of the switch.



Suitable for switches	Function	Product Hierarchy 2200001	
		Order Code	Price
<b>Fixed neutral</b>			
OT16...40F3		OTPN40FP	
OT63...80F3		OTPN80FP	
OT100...125F3		OTPN125FP	
OT106E3, ET3		OTPN160EP	
OT16...40FT3		OTPN40FD	
OT63...80FT3		OTPN80FD	
OT 100...125ET3		OTPN125FD	
<b>Detachable neutral</b>			
OT16...40F3		OTPD40FP	
OT63...80F3		OTPD80FP	
OT100...125FT3		OTPD125FP	
OT63...80FT3		OTPD80FD	
<b>Protective earth</b>			
OT16...40F3		OTPE40FP	
OT63...80F3		OTPE80FP	
OT100...125F3		OTPE125FP	
OT 160E3, ET3		OTPE160EP	
OT16...40F3		OTPE40FD	
OT63...80F3		OTPE80FD	
OT100...125FT3		OTPE125FD	



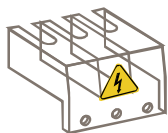
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# Switch disconnectors accessories

## Neutral links & terminal shrouds

### Neutral links

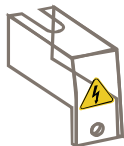
		Product Hierarchy 2200001	
Suitable for switches	$I_{th}$ [A]	Order Code	Price
Detachable, mountable separately to the base plate			
OT 160EV...250 / OTM 160...250	250	OXN250	
OT/OTM 315...400	400	OXN400	
OT/OTM 630...800	800	OXN800T	
OT/OTM 1000...1250	1250	OXN1250T	
Mountable separately to the base plate			
	200	OESAZX162	
	315	OESAZX164	
	400	OESAZX165	
	1000	OESAZX160	



OTS\_T3



OTS125T3L



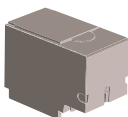
OTS\_T1



OTS160T1



OTS\_L



OTS\_S\_

### Terminal shrouds

Snap-on mounting, transparent

Suitable for switches	Order Code	Price
For 3-pole switches		
OT 16...40F3, -FT3	OTS40T3	
OT63...80F3, -FT3	OTS63T3	
OT 100...125F3, FT3	OTS125T3	
OT125FL	OTS125T3L	
OT160E3	OTS160T3	
OT100...125F3 with terminal clamps OZXL1 or OZXT1	OTS125T3P	
For 4-pole switches		
OT160E4	OTS160T4	

For 1 to 4-pole switches, shroud for single pole and for fourth pole

Suitable for switches	Order Code	Price
OTP_40F_	OTS40T1	
OTP_80F_	OTS63T1	
OTP_125F	OTS125T1P	
OT160E_	OTS160T1	
OT100...125E3 with terminal clamps OZXL1/1 or OZXT1	OTS125T1P	

Snap-on mounting, grey plastic

Suitable for switches	Description	Order Code	Price	Order Code	Price
		3-pole switches		4-pole switches	
OT160EV...250/OTM160...250	Long Type	OTS250G1L/3	20.87	OTS250G1L/4	
	Short Type	OTS250G1S/3	18.96	OTS250G1S/4	
OT/OTM315...400	Long Type	OTS400G1L/3	29.15	OTS400G1L/4	
	Short Type	OTS400G1S/3	23.32	OTS400G1S/4	
OT/OTM630...800	Long Type	OTS800G1L/3	52.19	OTS800G1L/4	
	Short Type	OTS800G1S/3	46.84	OTS800G1S/4	
OT/OTM1000...1600	Long Type	OTS1600G1L/3	35.17	OTS1600G1L/4	
	Short Type	OTS1600G1S/3	27.03	OTS1600G1S/4	
OT/OTM2000...2500	Long Type	OTS2500G1L/3	48.94	OTS2500G1L/4	
	Short Type	OTS2500G1S/3	35.95	OTS2500G1S/4	



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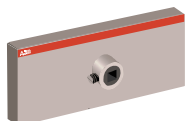
# Switch disconnectors accessories

## Conversion kits

### Conversion kits for front operated switch combinations

#### 6 & 8-pole switch mechanism

Parallel attachment for connecting two 3- or 4-pole switches. The switches work simultaneously. Mounting directly on the top of two switch-disconnectors, snap-on mounting. The switch size is printed on stickers for different switch sizes. The fourth pole or auxiliary contacts can be mounted on the outer side of the combination.



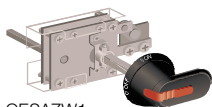
OWP6D80



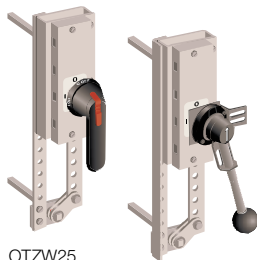
OTZW8



OESAZW2



OESAZW1



OTZW25  
OETLZW11, OETLZW12



OTZW26

OETLZW13

#### Product Hierarchy 2200001

Suitable for switches	Shaft distance [mm]	Product Hierarchy 2200001	
		Order Code	Price
OT16 - 40		OWP6D40	
OT63...80		OWP6D80	
OT100...125		OWP6D125	

Attachment levers provided with holes, enabling different shaft distances. The combination switches can be mounted either horizontally or vertically. Two 3 or 4-pole switches needed.

Suitable for switches	Shaft distance [mm]	Order Code	Price
OT16...40	45+(0 - 12)x15	OTZW8	
OT45...80	60+(0 - 11)x15		
OT100...125	75+(0 - 10)x15		
OT160E	45+(0 - 11)x15	OESAZW2	
OT160EV...250	45+(0 - 13)x15		
OT315...800	60+(0 - 19)x20	OETLZW9	

#### Change-over switch mechanism

Two switches connected with a mechanism operating into I-O-II positions. Two 3 or 4-pole switches needed.

Suitable for switches	Shaft distance [mm]	Order Code	Price
OT16...125	90+(0 - 10)x15	OESAZW1	
OT160EV...250	210+(0 - 18)x20	OTZW25	
OT315...400	210+(0 - 11)x20	OETLZW11	
OT630...800	210+(0 - 20)x20	OETLZW12	

#### By-pass switch mechanism

A combination of two switches in parallel with a third switch for change-over operation to by-pass, for example, a breaker for maintenance. The by-pass attachment can be used together with another combination attachment. Three 3 or 4-pole switches needed.

Suitable for switches	Shaft distance [mm]	Order Code	Price
OT16 - 125	Between 1 and 2: 90+(0...6)x15	OTZW17	
	Between 1 and 3: 90+(0...10)x15		
OT160EV - 250	Between 1 and 2: 210+(0...9)x20	OTZW26	
	Between 1 and 3: 250+(0...9)x20		
OT315 - 800	Between 1 and 2: 210+(0...18)x20	OETLZW13	
	Between 1 and 3: 250+(0...18)x20		

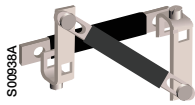


Full range of product and technical information place this part number in a search engine and download

1SCC301001C0201

# Switch disconnectors accessories

## Mechanical interlocks



OTZW24, 10



OETLZW 14, 3, 15

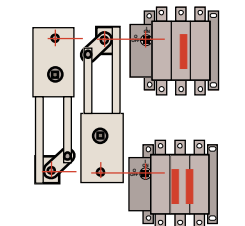
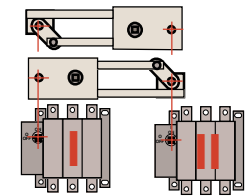
### Mechanical interlock mechanism

Prevents one switch from closing to ON-position, if the other is not in OFF-position. When mounted upside down, prevents one switch from opening to OFF-position, if the other is not in ON-position. (UPS-usage, make-before-break)

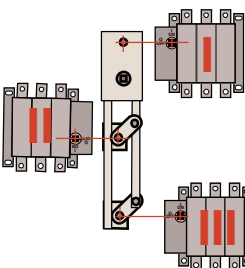
		Product Hierarchy 2200001	
Suitable for switches	Shaft distance [mm]	Order Code	Price
Two 3-pole switches needed			
OT16...125	100	OTZW24	
OT160...250	190	OTZW10	
OT315...400	250	OETLZW14	
OT315...800	300	OETLZW3	
OT 315...2500 and 3150	500	OETLZW15	

### The shafts and handles for conversion kits

Conversion kit type	To be ordered separately		Included in conversion kit delivery		The standard handle or shaft of one of the combined switches can be used	
	Shaft	Handle	Shaft	Handle	Shaft	Handle
6 and 8-pole switches						
OWP5D1	x (shaft dia 5 mm)	OHB1A_	-	-	-	-
OWP5D2	x (shaft dia 5 mm)	OHB1A_	-	-	-	-
OWP5D3	x (shaft dia 5 mm)	OHB1A_	-	-	-	-
OWP5D4	x (shaft dia 5 mm)	OHB1A_	-	-	-	-
OWP6D1	x (shaft dia 6 mm)	OHB45J6	-	-	-	-
OWP6D2	x (shaft dia 6 mm)	OHB45J6	-	-	-	-
OTZW8	x (shaft dia 5 mm)	OHB65J5	-	-	-	-
OESAZW2	-	-	x (2 pcs)	OHB145J12	-	-
OETLZW9 for OT	-	-	-	-	x	x
OETLZW9 for OETL	-	YASDA7 or 8	-	-	x	-
Change-over switches						
OTZW6	-	-	x (2 pcs)	OHB80J6E011	-	-
OTZW25	-	-	x (2 pcs)	OHB95J12E011	-	-
OETLZW11	-	-	x (2 pcs)	OHB145J12E011	-	-
OETLZW12	-	-	x (2 pcs)	YASDA21 (metallic)	-	-
By-pass switches						
OTZW17	-	-	x (3 pcs)	OHB80J6E011	-	-
OTZW26	-	-	x (3 pcs)	OHB95J12E011	-	-
OETLZW13	-	-	x (3 pcs)	YASDA 6	-	-
Mechanical interlock						
OTZW24	-	-	-	-	x	x
OTZW10	-	-	-	-	x	x
OETLZW14	-	-	-	-	x	x
OETLZW3	-	-	-	-	x	x
OETLZW15	-	-	-	-	x	x



Change-over switches

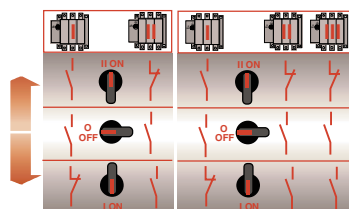


Change-over and by-pass switches

4



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Change-over switches

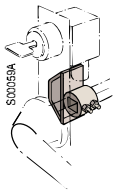
By-pass switches



Mechanical interlock

# Switch disconnectors accessories

## Locking & mounting accessories



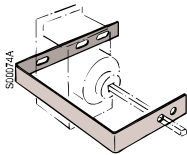
OETLZW 16



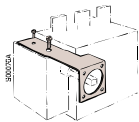
SA 1



OHZX4



OETLZX 58



OHZX 1, 3

### Locking accessories

#### Cam attachment for Castell, Lowe & Fletcher and Ronis interlock

Cam attachment for adopting the switches to the interlock system. The interlock is not included

Suitable for switches	Product Hierarchy 2200001	
	Order Code	Price
OT16...250	OETLZW16	
OT315...2500, OETL3150	OETLZW5	
<b>Padlocking adapter</b> For a padlock with a max. 3.5mm ball		
OT45...125E, OT160	SA1	

### Door interlock bracket

When this bracket is provided, the door interlock in handles can't be defeated.

For pistol type handles	Order Code	Price
OH_45...275	OHZX4	

### Mounting accessories

#### Shaft support for long shafts

Suitable for switches	Order Code	Price
OT16...125	OETLZX58	

#### Handle support bracket for direct mounting on the switch mechanism

OETL3150	OETLZX71	
----------	----------	--

#### 90° angle kit, a front operated switch can be converted to side operated switch

OETL3150	OETLZX108	
----------	-----------	--



Full range of product and technical information place this part number in a search engine and download

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# OT change-over and transfer switches 16 ... 2500 A 690V

## Manual operation



	OT16F	OT63F	OT100F
	OT25F	OT80F	OT125F
	OT40F		

$I_n$ / A	25	32	40	63	80	115	125
$I_n$ / AC-22A, $\leq 415V$	16	25	40	63	80	100	125
$I_n$ / AC-23A, $\leq 415V$	16	20	23	45	75	80	90

4

$I_n$ / A							
$I_n$ / AC-22A, $\leq 415V$							
$I_n$ / AC-23A, $\leq 415V$							
$I_n$ / AC-21B, $\leq 415V$							

## Motor operation



	OTM160E_C	OTM160E_WC	OTM315E_C
	OTM200E_C	OTM200E_WC	OTM400E_C
	OTM250E_C	OTM250E_WC	

$I_n$ / A	160	200	250	160	200	250	315	400
$I_n$ / AC-22A, $\leq 415V$	160	200	250	160	200	250	315	400
$I_n$ / AC-23A, $\leq 415V$	160	200	250	160	200	250	315	400
$I_n$ / AC-21B, $\leq 415V$								

## Automatic operation



	OTM160E_C_D	OTM160E_WC_D
	OTM200E_C_D	OTM200E_WC_D
	OTM250E_C_D	OTM250E_WC_D

$I_n$ / A	160	200	250	160	200	250
$I_n$ / AC-22A, $\leq 415V$	160	200	250	160	200	250
$I_n$ / AC-23A, $\leq 415V$	160	200	250	160	200	250



**Accessories**

Optional handles

Terminal shrouds

Extended shafts

Connecting accessories

Auxiliary contacts

Locking accessories



OT160E  
OT200E  
OT250E

OT160E\_W  
OT200E\_W  
OT250E\_W

OT315E  
OT400E

OT630E  
OT800E

160 200 250  
160 200 250  
160 200 250

160 200 250  
160 200 250  
160 200 250

315 400  
315 400  
315 400

630 800  
630 800  
630 800



OT1000E  
OT1250E

OT1600E

OT2000E  
OT2500E

1000 1250  
1000 1250  
1000 1250

1600  
1600  
1250

2000 2500  
2000 2500  
2000 2500



OTM630E\_C  
OTM800E\_C

OTM1000E\_C  
OTM1250E\_C

OTM1600E\_C

OTM2000E\_C  
OTM2500E\_C

630 800  
630 800  
630 800

1000 1250  
1000 1250  
1000 1250

1600  
1600  
1250

2000 2500  
2000 2500  
2000 2500



OTM315E\_C\_D  
OTM400E\_C\_D

OTM630E\_C\_D  
OTM800E\_C\_D

OTM1000E\_C\_D  
OTM1250E\_C\_D

OTM1600E\_C\_D

315 400  
315 400  
315 400

630 800  
630 800  
630 800

1000 1250  
1000 1250  
1000 1250

1600  
1600  
1250

# Growing importance of a secure power supply

As industrial processes and IT applications diversify, a secure power supply is becoming an increasingly important asset in the drive to cut production and maintenance costs. In emergency situations, the system logic of power distribution can become complex with mechanical devices looking after making, breaking, conducting and isolating power. Loads may sometimes need to be transferred from one supply to another — this will be the case when energy use is restricted or when the supply source is overloaded.

## High performance level

In change-over applications where the loaded switch may need to be operated remotely, adequate durability has been ensured by testing against the IEC 60947-6-1 standard in the specification of endurance requirements.

### Utilization categories:

- AC-31 for non-inductive or slightly inductive load
- AC-33 for motor loads or mixed loads including motors

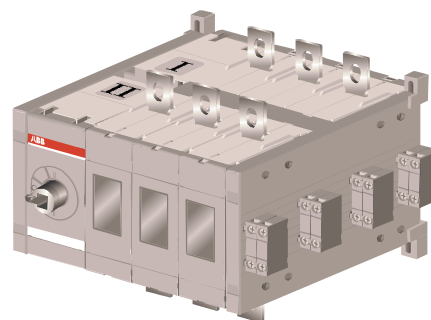
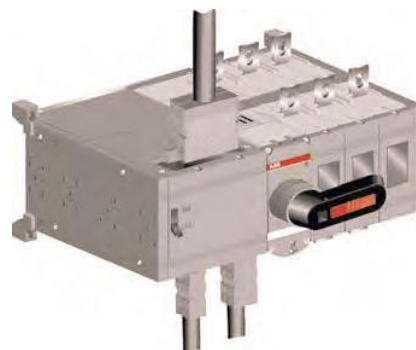
The motorized change-over switches have snap-on control wire connections. Auxiliary contacts can be snapped-on to the sides of the switches and the power terminals can be connected in parallel with bridging bars.

4

ABB change-over switches are rated according to IEC 60947-6-1 standard

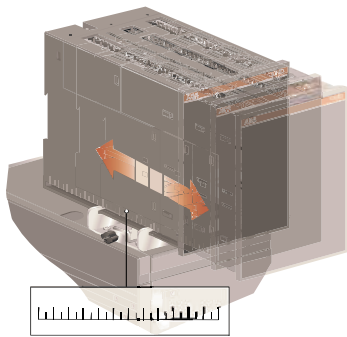
## Easy installation for local or remote control

ABB change-over switches are very easy to install: the manually operated switch is operated via a handle fixed directly on the switch or on the panel door. The 16 to 125 Ampere sizes can be snapped-on to a DIN rail and the front fits in the 45 mm consumer unit cut-out.



The automatic transfer switches feature the automatic control unit which can be adjusted according to the mounting depth of the panel. Voltage sensing kit is installed at the factory thus reducing the expensive and time consuming installation work.

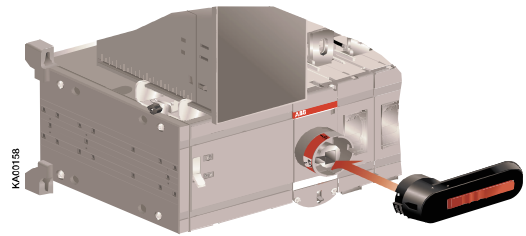
- ▶ Quick and easy installation  
– savings in time and expenses



#### Safe and reliable

ABB automatic transfer switches ensure service continuity with a number of built-in, integrated safety features. The change-over mechanism, for example, offers three stable positions which ensure isolation of the two asynchronous power supplies. This eliminates any risk of short-circuit between them, even in the presence of transient voltages. The automatic transfer switches are equipped with handle for manual operation in case of emergency.

- ▶ Inbuilt safety



#### Compact design

The design of ABB change-over switches is advanced and compact, allowing installation in confined spaces at considerable savings. Compact double layer construction.

- ▶ Minimizing the need for space

# Change-over switches

## Manual OT16...315

### Change-over switches, 3 & 4 pole, I-O-II -indication

Includes terminal clamps IP20. Handle and shaft has to be ordered separately.



OT 45...63 E3C



OT 125 E3C

4

Rated current / Rate Power			Number of Poles	Product Hierarchy 2200003	
AC-21A...AC-22A	AC-23A	Order Code		Price	
Up to 415V I[A]	400V S/[kVA]	400-415V I[A], P[kW]			
16	11	16/7.5	3	OT16F3C	
			4	OT16F4C	
25	17	20/9	3	OT25F3C	
			4	OT25F4C	
40	27	23/11	3	OT40F3C	
			4	OT40F4C	
63	43	45/22	3	OT63F3C	
			4	OT63F4C	
80	55	75/37	3	OT80F3C	
			4	OT80F4C	
100	70	80/37	3	OT100F3C	
			4	OT100F4C	
125	86	90/45	3	OT125F3C	
			4	OT125F4C	



OT160...250E03CP



OT315...400E03CP



OT630...800E03CP



OT160...250E03WCP

### Manual Change-over switches, 3 & 4 pole, I-O-II -indication

Including a black plastic IP65 I-O-II pistol type handle, padlockable in the O-position, door interlock in the I- & II-positions and when padlocked.

				Order Code	Price
160	110	160/90	3	OT160E03CP	
				OT160E12CP	
				OT160E03WCP	
			4	OT160E04CP	
				OT160E13CP	
				OT160E04WCP	
200	135	200/110	3	OT200E03CP	
				OT200E12CP	
				OT200E03WCP	
			4	OT200E04CP	
				OT200E13CP	
				OT200E04WCP	
250	170	250/140	3	OT250E03CP	
				OT250E12CP	
				OT250E03WCP	
			4	OT250E04CP	
				OT250E13CP	
				OT250E04WCP	
315	215	315/160	3	OT315E03CP	
				OT315E12CP	
				OT315E04CP	
			4	OT315E13CP	
				OT315E04WCP	
				OT315E13WCP	



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# Change-over switches

## Manual OT400...2500

### Manual Change-over switches, 3 & 4 pole, I-O-II - indication

Including a black plastic IP65 I-O-II pistol type handle, padlockable in the O-position, door interlock in the I- & II-positions and when padlocked.



OT160...250E03CP



OT315...400E03CP



OT630...800E03CP



OT1250E03CP



OT2500E03CP

				Product Hierarchy 2200003	
				Order Code	Price
400	275	400/220	3	OT400E03CP	
				OT400E12CP	
			4	OT400E04CP	
				OT400E13CP	
630	435	630/355	3	OT630E03CP	
				OT630E12CP	
			4	OT630E04CP	
				OT630E13CP	
800	550	800/450	3	OT800E03CP	
				OT800E12CP	
			4	OT800E13CP	
				OT800E04CP	
1000	680	1000/560	3	OT1000E03CP	
				OT1000E12CP	
			4	OT1000E04CP	
				OT1000E13CP	
				OT1000E22CP	
1250	850	1250/710	3	OT1250E03CP	
				OT1250E12CP	
			4	OT1250E04CP	
				OT1250E22CP	
				OT1250E13CP	
1600	1000	1250/710	3	OT1600E03CP	
				OT1600E12CP	
			4	OT1600E04CP	
				OT1600E13CP	
				OT1600E22CP	
2000	1350	-	3	OT2000E03CP	
				OT2000E12CP	
			4	OT2000E04CP	
				OT2000E13CP	
				OT2000E22CP	
2500	1700	-	3	OT2500E03CP	
				OT2500E12CP	
			4	OT2500E04CP	
				OT2500E13CP	
				OT2500E22CP	

4



Full range of product and technical information place this part number in a search engine and download  
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# Change-over switches

## Manual fast transition OT160...800

### Manual Change-over switches, 3 & 4 pole, I-O-II -indication

Including a black plastic IP65 I-O-II pistol type handle, shaft and bolt set for the cable connection. Handle not padlockable and no door interlocking. Operating angle 90° to achieve fast switching. Minimum OFF-time between transfer from I-II or II-I is 20ms.

4



OT250E03CFP



OT315E13CFP



OT630-800E03CFP



OT630-800E04CFP

				Product Hierarchy 2200003	
				Order Code	Price
160	110	160/90	3	OT160E03CFP	
				OT160E12CFP	
				OT160E03WCFP	
			4	OT160E04CFP	
				OT160E13CFP	
				OT160E04WCFP	
200	135	200/110	3	OT200E03CFP	
				OT200E12CFP	
				OT200E03WCFP	
			4	OT200E04CFP	
				OT200E13CFP	
				OT200E04WCFP	
250	170	250/140	3	OT250E03CFP	
				OT250E12CFP	
				OT250E03WCFP	
			4	OT250E04CFP	
				OT250E13CFP	
				OT250E04WCFP	
315	215	315/160	3	OT315E03CFP	
				OT315E12CFP	
				OT315E04CFP	
			4	OT315E13CFP	
				OT400E03CFP	
				OT400E12CFP	
400	275	400/220	3	OT400E03CFP	
				OT400E12CFP	
				OT400E04CFP	
			4	OT400E13CFP	
				OT630E03CFP	
				OT630E12CFP	
630	435	630/355	3	OT630E03CFP	
				OT630E12CFP	
				OT630E04CFP	
			4	OT630E13CFP	
				OT800E03CFP	
				OT800E12CFP	
800	550	800/450	3	OT800E03CFP	
				OT800E12CFP	
				OT800E04CFP	
			4	OT800E13CFP	

### Shafts, handle and bolt kits included as standard

Suitable for switches	Shaft	Handle	Bolt kit
OT160...250_C	XP6x161	OHB65J6E011	M8x25
OT315...400_C	XP12x166	OHB95J12E011	M10x30
OT630...800_C	XP12x185	OHB125J12E011	M12x40
OT1000...2500_C		OHB200J12PE011	M12x60
OT160...250_CF	XP6x161	OHB65J6E69	M8x25
OT315...400_CF	XP12x166	OHB95J12E69	M10x30
OT630...800_CF	XP12x185	OHB145J12E69	M12x40

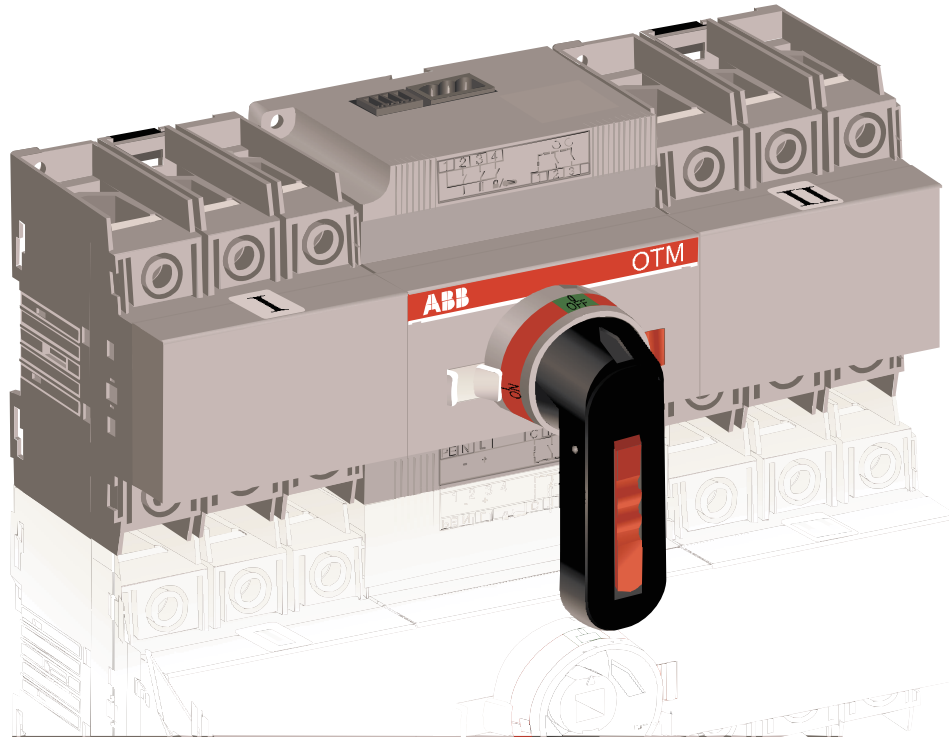


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# OTM40...125\_C

## Improves your performance



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### Assembly made easy

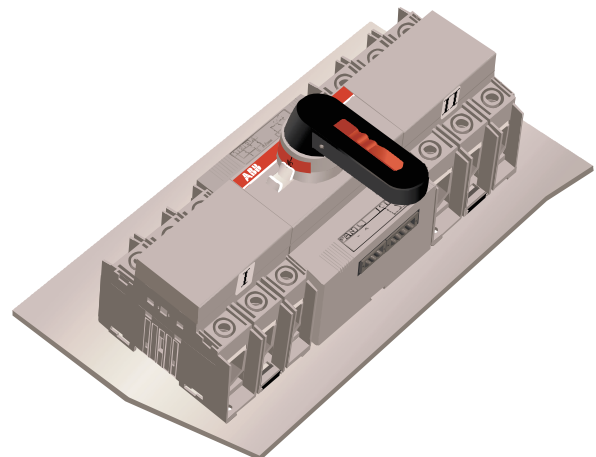
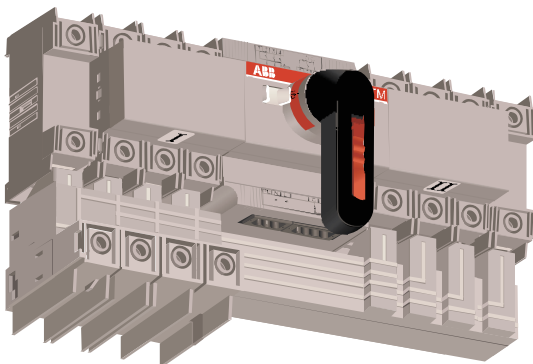
- Bridging bars for quick wiring
- Tunnel terminals ensure a tight and good connection every time
- Snap on accessories are easy to install
- Mounting in any direction

- ▶ Fast and reliable installation every time

### Most compact solution

- The very small footprint area of OTM allows it to be installed in confined spaces

- ▶ Reduced size means savings in costs





Effortless assembly, safety features, optimized performance and small size enable OTM40...125\_C motorized change-over switches to improve the performance of your application!

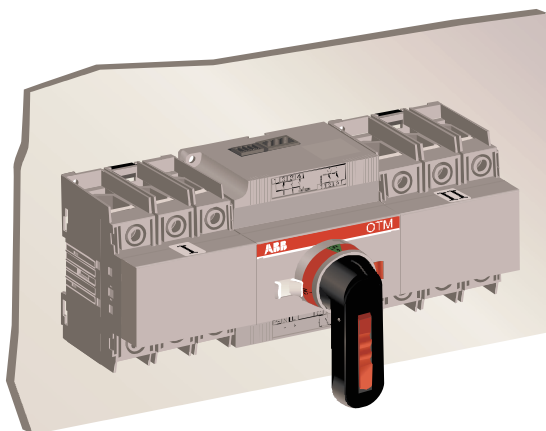
ABB offers a wide range of components for change-over applications. Meaning that all components can be sourced from one supplier.

4

#### Performance that meets your needs

- Tested according to IEC 60947-3 and IEC 60947-6-1
- Full ratings according to utilization categories AC22A/32B which are the typical categories in GenSet applications
- A wide supply voltage range provides enhanced logistics and effortless design work
- 3- and 4-pole switches as standard

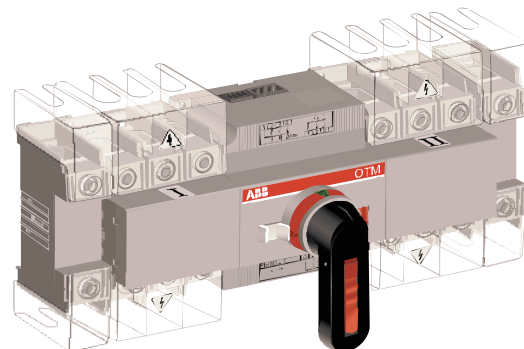
- ▶ Designed for your application



#### Safe to use

- OTM is not only a transfer device, it is also an isolator providing safe maintenance work
- Reliable position indication is always guaranteed
- Finger-safe construction prevents contact with live parts
- Mechanical and electrical locking options - safety is always considered

- ▶ Safe and reliable operation and maintenance





# Change-over switches

## Motorised OTM40...125\_C



Change-over switches, motor operation, I-O-II operation, open transition  
OTM40...125\_C

Including handle for manual operation, a handle storage clip and male connectors for control circuits. Cable cross section for OTM40 is 2.5...25mm<sup>2</sup> or 2 x 2.5...16mm<sup>2</sup> and for OTM63...125 is 10...70mm<sup>2</sup>

OTM40...125F3C\_



OTM40...125F4C\_



Motor voltage U<sub>e</sub> 110-240 V AC/DC

No of Poles	Rated Current AC21A .. AC22A 415V [A]	Rated Power 400V [kVA]	Rated Current AC31B / AC33B 415V [A]	Part Number	Product Hierarchy 2200003	
					Order Code	Price
3	40	27	40/40	OTM40F3CMA230V	OTM40F3CMA230V	
4				OTM40F4CMA230V	OTM40F4CMA230V	
3	63	43	63/63	OTM63F3CMA230V	OTM63F3CMA230V	
4				OTM63F4CMA230V	OTM63F4CMA230V	
3	80	55	80/80	OTM80F3CMA230V	OTM80F3CMA230V	
4				OTM80F4CMA230V	OTM80F4CMA230V	
3	100	70	100/80	OTM100F3CMA230V	OTM100F3CMA230V	
4				OTM100F4CMA230V	OTM100F4CMA230V	
3	125	86	125/80	OTM125F3CMA230V	OTM125F3CMA230V	
4				OTM125F4CMA230V	OTM125F4CMA230V	



Full range of product and technical information place this part number in a search engine and download  
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# Change-over switches

## Motorised OTM160...200

### Motorised Change-over switches, 3 & 4 pole, I-O-II -indication

Including a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160-2500E\_ include a clamp for the handle and spare fuses. Types OTM160-250E\_W are equipped with extended phase distance.



OTM160...250E3\_



OTM160...250E4\_



OTM160...250E3W\_

4

Rated Current AC-21A... AC-22A Up to 415V I[A]	Rated Power S/[kVA]	Rated Current AC-31B AC-33B 415V I[A]	Number of Poles	Motor voltage Ue	Product Hierarchy 2200003	
					Order Code	Price
160	110	160/160	3	220-240v AC	OTM160E3CM230C	
				110-125v AC/DC	OTM160E3CM110C	
				48v DC	OTM160E3CM48D	
				24v DC	OTM160E3CM24D	
				220-240v AC	OTM160E3WCM230C	
				110-125v AC/DC	OTM160E3WCM110C	
				48v DC	OTM160E3WCM48D	
				24v DC	OTM160E3WCM24D	
			4	220-240v AC	OTM160E4CM230C	
				110-125v AC/DC	OTM160E4CM110C	
				48v DC	OTM160E4CM48D	
				24v DC	OTM160E4CM24D	
				220-240v AC	OTM160E4WCM230C	
				110-125v AC/DC	OTM160E4WCM110C	
				48v DC	OTM160E4WCM48D	
				24v DC	OTM160E4WCM24D	
200	135	200/200	3	220-240v AC	OTM200E3CM230C	
				110-125v AC/DC	OTM200E3CM110C	
				48v DC	OTM200E3CM48D	
				24v DC	OTM200E3CM24D	
				220-240v AC	OTM200E3WCM230C	
				110-125v AC/DC	OTM200E3WCM110C	
				48v DC	OTM200E3WCM48D	
				24v DC	OTM200E3WCM24D	
			4	220-240v AC	OTM200E4CM230C	
				110-125v AC/DC	OTM200E4CM110C	
				48v DC	OTM200E4CM48D	
				24v DC	OTM200E4CM24D	
				220-240v AC	OTM200E4WCM230C	
				110-125v AC/DC	OTM200E4WCM110C	
				48v DC	OTM200E4WCM48D	
				24v DC	OTM200E4WCM24D	



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# Change-over switches

## Motorised OTM250...630

### Motorised Change-over switches, 3 & 4 pole, I-O-II -indication

Including a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160-2500E\_ include a clamp for the handle and spare fuses. Types OTM160-250E\_W are equipped with extended phase distance.



OTM250E4CM230C



OTM315...400E3\_



OTM315...400E4\_

Rated Current AC-21A... AC-22A Up to 415V I/[A]	Rated Power 400V S/[kVA]	Rated Current AC-31B AC-33B 415V I/[A]	Number of Poles	Motor voltage Ue	Product Hierarchy 2200003	
					Order Code	Price
250	170	250/250	3	220-240v AC	OTM250E3CM230C	
				110-125v AC/DC	OTM250E3CM110C	
				48v DC	OTM250E3CM48D	
				24v DC	OTM250E3CM24D	
				220-240v AC	OTM250E3WCM230C	
				110-125v AC/DC	OTM250E3WCM110C	
			4	48v DC	OTM250E3WCM48D	
				24v DC	OTM250E3WCM24D	
				220-240v AC	OTM250E4CM230C	
				110-125v AC/DC	OTM250E4CM110C	
				48v DC	OTM250E4CM48D	
				24v DC	OTM250E4CM24D	
315	215	315/315	3	220-240v AC	OTM315E3CM230C	
				110-125v AC/DC	OTM315E3CM110C	
				48v DC	OTM315E3CM48D	
				24v DC	OTM315E3CM24D	
			4	220-240v AC	OTM315E4CM230C	
				110-125v AC/DC	OTM315E4CM110C	
				48v DC	OTM315E4CM48D	
				24v DC	OTM315E4CM24D	
400	275	400/400	3	220-240v AC	OTM400E3CM230C	
				110-125v AC/DC	OTM400E3CM110C	
				48v DC	OTM400E3CM48D	
				24v DC	OTM400E3CM24D	
			4	220-240v AC	OTM400E4CM230C	
				110-125v AC/DC	OTM400E4CM110C	
				48v DC	OTM400E4CM48D	
				24v DC	OTM400E4CM24D	
400	275	400/400	3	220-240v AC	OTM630E3CM230C	
				110-125v AC/DC	OTM630E3CM110C	
				48v DC	OTM630E3CM48D	
				24v DC	OTM630E3CM24D	
			4	220-240v AC	OTM630E4CM230C	
				110-125v AC/DC	OTM630E4CM110C	
				48v DC	OTM630E4CM48D	
				24v DC	OTM630E4CM24D	



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# Change-over switches

## Motorised OTM800...1600

### Motorised Change-over switches, 3 & 4 pole, I-O-II -indication

Including a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160-2500E\_ include a clamp for the handle and spare fuses. Types OTM160-250E\_W are equipped with extended phase distance.

4



OTM1250E3CM230C



OTM1600E3CM230C

Rated Current	Rated Power S/[kVA]	Rated Current I[A]	Number of Poles	Motor voltage Ue	Product Hierarchy 2200003	
					Order Code	Price
AC-21A... AC-22A Up to 415V I[A]	400V	AC-31B AC-33B 415V I[A]	3	220-240v AC	OTM800E3CM230C	
				110-125v AC/DC	OTM800E3CM110C	
				48v DC	OTM800E3CM48D	
				24v DC	OTM800E3CM24D	
			4	220-240v AC	OTM800E4CM230C	
				110-125v AC/DC	OTM800E4CM110C	
				48v DC	OTM800E4CM48D	
				24v DC	OTM800E4CM24D	
800	550	720/650	3	220-240v AC	OTM1000E3CM230C	
				110-125v AC/DC	OTM1000E3CM110C	
				48v DC	OTM1000E3CM48D	
				24v DC	OTM1000E3CM24D	
			4	220-240v AC	OTM1000E4CM230C	
				110-125v AC/DC	OTM1000E4CM110C	
				48v DC	OTM1000E4CM48D	
				24v DC	OTM1000E4CM24D	
1000	680	1000/1000	3	220-240v AC	OTM1250E3CM230C	
				110-125v AC/DC	OTM1250E3CM110C	
				48v DC	OTM1250E3CM48D	
				24v DC	OTM1250E3CM24D	
			4	220-240v AC	OTM1250E4CM230C	
				110-125v AC/DC	OTM1250E4CM110C	
				48v DC	OTM1250E4CM48D	
				24v DC	OTM1250E4CM24D	
1250	850	1250/1000	3	220-240v AC	OTM1600E3CM230C	
				110-125v AC/DC	OTM1600E3CM110C	
				48v DC	OTM1600E3CM48D	
				24v DC	OTM1600E3CM24D	
			4	220-240v AC	OTM1600E4CM230C	
				110-125v AC/DC	OTM1600E4CM110C	
				48v DC	OTM1600E4CM48D	
				24v DC	OTM1600E4CM24D	
1600	100	-	3	220-240v AC	OTM1600E3CM230C	
				110-125v AC/DC	OTM1600E3CM110C	
				48v DC	OTM1600E3CM48D	
				24v DC	OTM1600E3CM24D	
			4	220-240v AC	OTM1600E4CM230C	
				110-125v AC/DC	OTM1600E4CM110C	
				48v DC	OTM1600E4CM48D	
				24v DC	OTM1600E4CM24D	



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# Change-over switches

## Motorised OTM2000...2500

### Motorised Change-over switches, 3 & 4 pole, I-O-II -indication

Including a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160-2500E\_ include a clamp for the handle and spare fuses. Types OTM160-250E\_W are equipped with extended phase distance.



OTM2500E3CM230C

Rated Current	Rated Power	Rated Current	Number of Poles	Motor voltage Ue	Product Hierarchy 2200003	
					Order Code	Price
AC-21A... AC-22A Up to 415V I/[A]	400V S/[kVA]	AC-31B AC-33B 415V I/[A]	3	220-240v AC	OTM2000E3CM230C	
				110-125v AC/DC	OTM2000E3CM110C	
				48v DC	OTM2000E3CM48D	
				24v DC	OTM2000E3CM24D	
			4	220-240v AC	OTM2000E4CM230C	
				110-125v AC/DC	OTM2000E4CM110C	
				48v DC	OTM2000E4CM48D	
				24v DC	OTM2000E4CM24D	
2000	1350	-	3	220-240v AC	OTM2500E3CM230C	
				110-125v AC/DC	OTM2500E3CM110C	
				48v DC	OTM2500E3CM48D	
				24v DC	OTM2500E3CM24D	
			4	220-240v AC	OTM2500E4CM230C	
				110-125v AC/DC	OTM2500E4CM110C	
				48v DC	OTM2500E4CM48D	
				24v DC	OTM2500E4CM24D	
2500	1700	-	3	220-240v AC	OTM2500E3CM230C	
				110-125v AC/DC	OTM2500E3CM110C	
				48v DC	OTM2500E3CM48D	
				24v DC	OTM2500E3CM24D	
			4	220-240v AC	OTM2500E4CM230C	
				110-125v AC/DC	OTM2500E4CM110C	
				48v DC	OTM2500E4CM48D	
				24v DC	OTM2500E4CM24D	

4

### Shafts, handle and bolt kits included as standard

Suitable for switches	Handle	Bolt kit
OTM160...250	OTV250ECMK	M8x25
OTM315...400	OTV400ECMK	M10x30
OTM630...800	OTV800ECMK	M12x40
OTM1000...2500	OTV1000ECMK	M12x60



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# Change-over switches

## Automatic transfer switches OTM160...1600

### Automatic transfer switches, I-O-II operation, open transition OTM\_C3D\_ types, voltage sensing on the top

Including a handle for manual operation, PCB connectors, bolt kit with nut and washers for all terminals.  
Types OTM160...1600\_C\_D, including a voltage sensing kit on the bottom of the switch, available on request, please add the letter "B" to the type code. Types OTM160-1600E include a clamp for the handle and spare fuses.  
Types OTM160...250\_WC\_D\_ are equipped with extended phase distance.

Automatic operation, OTM\_C3D\_ types, voltage sensing on the top. Including dual power source for the motor operator.  
Motor operator voltage  $U_e = 220-240\text{v AC}$



OTM400E4C3D230C



OTM800E4C3D230C



OTM1600E4WC3D230C



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Rated Current AC-21A... AC-22A Up to 415V I[A]	Rated Power S/[kVA]	Rated Current AC-31B AC-33B 415V I[A]	Number of Poles	Product Hierarchy 2200003	
				Order Code	Price
160	110	160/160	4	OTM160E4C3D230C	
				OTM160E4WC3D230C	
				OTM200E4C3D230C	
				OTM200E4WC3D230C	
				OTM250E4C3D230C	
				OTM250E4WC3D230C	
				OTM315E4C3D230C	
				OTM400E4C3D230C	
				OTM630E4C3D230C	
				OTM800E4C3D230C	
				OTM1000E4WC3D230C	
				OTM1250E4WC3D230C	
OTM1600E4WC3D230C					

Automatic operation, OTM\_C3D\_ types, voltage sensing on the top. Motor operator voltage  $U_e = 220-240\text{v AC}$

Rated Current AC-21A... AC-22A Up to 415V I[A]	Rated Power S/[kVA]	Rated Current AC-31B AC-33B 415V I[A]	Number of Poles	Product Hierarchy 2200003	
				Order Code	Price
160	110	160/160	3	OTM160E3C8D230C	
			4	OTM160E4C8D230C	
200	135	200/200	3	OTM200E3C8D230C	
			4	OTM200E4C8D230C	
250	170	250/250	3	OTM250E3C8D230C	
			4	OTM250E4C8D230C	
315	215	315/315	3	OTM315E3C8D230C	
			4	OTM315E4C8D230C	
400	275	400/400	3	OTM400E3C8D230C	
			4	OTM400E4C8D230C	
630	435	650/650	3	OTM630E3C8D230C	
			4	OTM630E4C8D230C	
800	550	720/650	3	OTM800E3C8D230C	
			4	OTM800E4C8D230C	
1000	680	1000/1000	3	OTM1000E3C8D230C	
			4	OTM1000E4C8D230C	
1200	850	1250/1000	3	OTM1200E3C8D230C	
			4	OTM1200E4C8D230C	
1600	1000	1600/1000	3	OTM1600E3C8D230C	
			4	OTM1600E4C8D230C	

# Change-over switches

## Manual change-over switches OTM160...315

### Manual change-over switches, I - I+II - II -operation, closed transition

Including dual power source for the motor operator.  
Motor operator voltage  $U_e = 220-240\text{V AC}$

Including a handle for manual operation, PCB connectors, bolt kit with nut and washers for all terminals.  
Types OTM160...1600\_C\_D. including a voltage sensing kit on the bottom of the switch, available on request, please add the letter "B" to the type code. Types OTM160-1600E include a clamp for the handle and spare fuses.  
Types OTM160...250\_WC\_D\_ are equipped with extended phase distance.



OTM160E03CLP



OTM250E03CLP



OTM315E03CLP

Rated Current AC-21A... AC-22A Up to 415V I[A]	Rated Power 400V S/[kVA]	Rated Current AC-31B AC-33B 415V I[A]	Number of Poles	Product Hierarchy 2200003	
				Order Code	Price
160	110	160/160	3	OTM160E03CLP	
				OTM160E12CLP	
				OTM160E03WCLP	
			4	OTM160E04CLP	
				OTM160E13CLP	
				OTM160E04WCLP	
200	135	200/200	3	OTM200E03CLP	
				OTM200E12CLP	
			4	OTM200E03WCLP	
				OTM200E04CLP	
				OTM200E13CLP	
				OTM200E04WCLP	
250	170	250/250	3	OTM250E03CLP	
				OTM250E12CLP	
				OTM250E03WCLP	
			4	OTM250E04CLP	
				OTM250E13CLP	
				OTM250E04WCLP	
315	215	315/315	3	OTM315E03CLP	
				OTM315E12CLP	
			4	OTM315E04CLP	
				OTM315E13CLP	

4



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# Change-over switches

## Manual change-over switches OT400...1600

### Manual change-over switches, I - I+II - II -operation, closed transition

Including dual power source for the motor operator.  
Motor operator voltage  $U_e = 220-240\text{V AC}$

Including a handle for manual operation, PCB connectors, bolt kit with nut and washers for all terminals.  
Types OTM160...1600\_C\_D, including a voltage sensing kit on the bottom of the switch, available on request, please add the letter "B" to the type code. Types OTM160-1600E include a clamp for the handle and spare fuses.  
Types OTM160...250\_WC\_D\_ are equipped with extended phase distance.

4



OTM630E13CLP



OTM1250E03CLP

Rated Current	Rated Power	Rated Current	Number of Poles	Product Hierarchy 2200003	
				Order Code	Price
AC-21A... AC-22A Up to 415V I[A]	400V S/[kVA]	AC-31B AC-33B 415V I[A]			
400	275	400/400	3	OTM400E03CLP	
				OTM400E12CLP	
			4	OTM400E04CLP	
				OTM400E13CLP	
630	435	650/650	3	OTM630E03CLP	
				OTM630E12CLP	
			4	OTM630E04CLP	
				OTM630E13CLP	
800	550	720/650	3	OTM800E03CLP	
				OTM800E12CLP	
			4	OTM800E04CLP	
				OTM800E13CLP	
1000	680	1000/1000	3	OTM1000E03CLP	
				OTM1000E12CLP	
			4	OTM1000E04CLP	
				OTM1000E13CLP	
1250	850	1250/1000	3	OTM1250E03CLP	
				OTM1250E12CLP	
			4	OTM1250E04CLP	
				OTM1250E13CLP	
1600	1000	1600/1000	3	OTM1600E03CLP	
				OTM1600E12CLP	
			4	OTM1600E04CLP	
				OTM1600E13CLP	

### Shafts, handle and bolt kits included as standard

Suitable for switches	Handle	Bolt kit
OTM160...250	OTV250ECMK	M8x25
OTM315...400	OTV400ECMK	M10x30
OTM630...800	OTV800ECMK	M12x40
OTM1000...2500	OTV1000ECMK	M12x60



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# Change-over switches

## Operating handles

### Handles

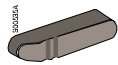
Handle knobs, mounting directly to the switch, no shaft needed



OHRS 2



OHRS 3



OHBS 9



OHBS2\_

Colour	Non Padlockable	Padlockable in O-position	Suitable for switch	Product Hierarchy 2200003	
				Order Code	Price
Black	-	X	OT16...80F_C	OHBS2	
Red				OHR2	
Black	X	-		OHR3	
Red				OHR3	
Black	-	X		OHR1	
Red				OHR1	
Black	X	-	OT100...125F_C	OHR9	
Red				OHR9	
Black	-	X		OHR11	
				OHR11	
Black		X	OTM40...125F_C	OHB65D6CM	

### External handles

Selector handle IP65, Nema type 1, 3R, 12 indication I-O-II. Padlockable in O-position with maximum of three padlocks with ball diameter 5...8mm (two lower holes) and 5...6.3mm (the upper hole). Door interlocked in I- and II-position and when padlocked in the O-position.

Colour	Shaft diameter	Suitable for switch	Product Hierarchy 2200003	
			Order Code	Price
Black	6	OT16...125F	OHBS2AJE011	
Yellow/Red			OHYS2AJE011	

Pistol type handle IP65, Nema type 1, 3R, 12 indication I-O-II. Padlockable with maximum of three padlocks with ball diameter 5...10mm. Door interlocked in I- and II-position and when padlocked.

#### Padlockable in all positions

Black	6	OT16...125F_C	OHB45J6E311	
Yellow/Red			OHY45J6E311	
Black	6	OT160...250E_C	OHB65J6E311	
			OT315...400E_C	OHB95J12E311
	12	OT630...800E_C	OHB125J12E311	
			OT1000...2500E_C	OHB200J12E311

#### Padlockable in O-position

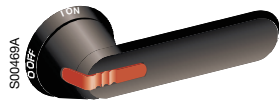
Black	6	OT16...125F_C	OHB45J6E011	
Yellow/Red			OHY45J6E011	
Black	6	OT160...250E_C	OHB65J6E011	
Yellow/Red			OHY65J6E011	
Black	12	OT315...400E_C	OHB95J12E011	
Yellow/Red			OHY95J12E011	
Black	12	OT630...800E_C	OHB125J12E011	
Yellow/Red			OHY125J12E011	
Black	12	OT1000...2500E_C	OHB200J12E011	
Yellow/Red			OHY200J12E011	

Metallic handles IP65, Nema type 1, 3R, 4, 4X, 12 indication I-O-II. Padlockable with maximum of three padlocks in OFF-position, door interlocked in I- and II-position.

Colour	Shaft diameter	Handle length (mm)	Order Code	Price
Metal	12	220	YASDA21	
		320	YASDA6	



OHY\_



OHB\_



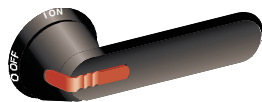
OHB\_



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# Change-over switches

## Operating handles



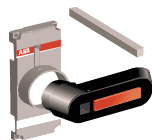
OHB\_

### Pistol handles

Plastic IP65, operating angle 90°, handle not padlockable or door interlocked.

Colour	Suitable for switch	Product Hierarchy 2200003	
		Order Code	Price
<b>Indication I - O - II</b>			
Black	OT160...250_CF	OHB65J6E69	
	OT315...400_CF	OHB65J12E69	
	OT630...800_CF	OHB145J12E69	
<b>Indication I - I+II - II</b>			
Black	OT160...250_CL	OHB65J6E65	
	OT315...400_CL	OHB65J12E65	
	OT630...800_CL	OHB145J12E65	
	OT1000...2500_CL	OHB200J12E65	

4



OTV\_

### Handles, direct mounting

Plastic handle with 3 padlocks in O-position. Includes a shaft and a mechanism cover. Types -ECMK include also microswitches. Shaft included.

Colour	Suitable for switch	Order Code	Price
<b>Indication I - O - II</b>			
Black		OTV250ECK	
		OTV400ECK	
		OTV800ECK	
		OTV1000ECK	
Black		OTV250ECMK	
		OTV400ECMK	
		OTV800ECMK	
		OTV1000ECMK	
Plastic handle operating angle 90°, handle not padlockable. Includes a shaft and a mechanism cover.			
<b>Indication I - O - II</b>			
Black	OT160...250_CF	OTV250ECFK	
	OT315...400_CF	OTV400ECFK	
	OT630...800_CF	OTV800ECFK	
Plastic handle operating angle 90°, handle not padlockable. Includes a shaft and a mechanism cover.			
<b>Indication I - I+II - II</b>			
Black	OT160...250_CL	OTV250ECLK	
	OT315...400_CL	OTV400ECLK	
	OT630...800_CL	OTV800ECLK	
	OT1000...2500CL	OTV1000ECLK	

### Accessories

Description	Suitable for switch	Part No	Order Code	Price
Handle storage clip	OTM40...125F	OTVS0	1SCA117524R1001	
Handle and spare fuse storage clip	OTM160...250E_	-	OTVS1	
	OTM315...2500E_	-	OTVS2	

### Connection kits

Suitable for switch	Cable cross section [mm²]	Part No	Order Code	Price
OTM40...125F3C_	10 ... 70	OMZC03	OMZC03	
OTM40...125F4C_		OMZC04	OMZC04	

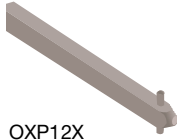


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# Change-over switches

## Extended shafts



OXP12X

### Shafts for selector type handles 6mm

Shaft length	H [mm]	Suitable for switches	Product Hierarchy 2200003	
			Order Code	Price
85	103...114	OT16...40	OXS6x85	
105	123...134		OXS6x105	
120	138...149		OXS6x120	
130	148...159		OXS6x130	
85	121...131	OT63...80	OXS6x85	
105	141...151		OXS6x105	
120	156...166		OXS6x120	
130	166...176		OXS6x130	
85	120...130	OT100...125	OXS6x85	
105	140...150		OXS6x105	
120	155...165		OXS6x120	
130	165...175		OXS6x130	

### Shafts for pistol type handles 6mm

150	164...175	OT16...40	OXP6x150	
170	184...195		OXP6x170	
265	279...290		OXP6x265	
400	414...425		OXP6x400	
150	183...194	OT63...80	OXP6x150	
170	203...214		OXP6x170	
265	298...309		OXP6x265	
400	433...444		OXP6x400	
150	192...206	OT100...125	OXP6x150	
170	212...226		OXP6x170	
265	307...321		OXP6x265	
400	442...456		OXP6x400	
90	166...214	OT160...250E_C	OXP6x90	
130	209...254		OXP6x130	
161	240...285		OXP6x161	
210	289...334		OXP6x210	
290	369...414		OXP6x290	
360	439...484		OXP6x360	

4

### Shafts for pistol type handles 12mm

107	209...266	OT160...250E_C	OXP12x107	
148	243...307		OXP12x148	
166	261...325		OXP12x166	
185	280...344		OXP12x185	
250	345...409		OXP12x250	
280	375...439		OXP12x280	
325	420...484		OXP12x325	
395	490...554		OXP12x395	
465	560...624	OXP12x465		
148	287...355	OT630...800E_C	OXP12x148	
185	324...422		OXP12x185	
250	389...487		OXP12x250	
325	464...562		OXP12x325	
395	534...632		OXP12x395	
465	604...702	OXP12x465		
166	339...425	OT1000...2500E_C	OXP12x166	
250	423...509		OXP12x250	
325	498...584		OXP12x325	
395	568...654		OXP12x395	
465	638...724		OXP12x465	



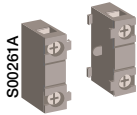
Full range of product and technical information place this part number in a search engine and download  
1SCC303003C0201

# Change-over switches

## Auxiliary contacts, 4th poles, terminal shrouds

### Auxiliary contact blocks, IP20

Contact numbering according to EN50013



OA1G\_  
OA3G01



OA2G11

Suitable for switches	Installation side	Function	Product Hierarchy 2200001	
			Order Code	Price
<b>Aux Contacts for snap-on mounting to the side of the switch IP20.</b>				
$I_m = 16A$ , cable cross section max. $2 \times 2.5 \text{ mm}^2$ .				
OT16...125F_C	Right	1NO	OA1G10	
		1NC	OA18G01	
	Left	1NO	OA7G10	
		1NC	OA1G01	
OT63...125F3C	Either	1NO/1NC	OA2G11	
<b>Aux Contacts mounting on the side of the switch maximum 8 blocks IP20.</b>				
OT160...2500E_C_	Right	1NO	OA1G10	
		1NC	OA2G11	

### Fourth poles

Mountable on the side of the switch.

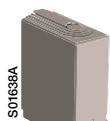


OTP\_63\_

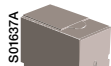
Suitable for switches	Rated current/ up to 415v I[A]		Product Hierarchy 2200001	
	AC-21A/AC-22A	AC-23A	Order Code	Price
Simultaneous function with the main contacts				
OT16...40	40	23	OTPS40FPN1	
			OTPS40FPN2	
OT63...80	80	75	OTPS80FP	
OT100...125	125	90	OTPS125FP	

### Terminal shrouds

Snap-on mounting, transparent



OTS\_L\_



OTS\_S\_

Suitable for switches	Order Code	Price
<b>For 3-pole switches</b>		
OT 16...40	OTS40T3	
OT63...80	OTS63T3	
OT 100...125	OTS125T3	
<b>For 4th pole</b>		
OTPS40FPN1	OTS40T1	
OTPS40FPN2		
OTPS80FP	OTS63T1	
OTPS125FP	OTS125T1	



Full range of product and technical information place this part number in a search engine and download

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# Change-over switches

## Connection kits

### Parallel connection kits

Suitable for switches	Max cable size [mm <sup>2</sup> ]	Product Hierarchy 2200001	
		Order Code	Price
OT16...40F3C	6 (fine stranded), 10 (stranded)	OZXA33	
OT16...40F4C		OZXA32	
OT63...80F3C	25	OZXA38	
OT63...80F4C		OZXA39	
OT100...125F3C	50	OZXA40	
OT100...125F4C		OZXA41	

### Bridging Bars

Suitable for switches	Number of poles	Order Code	Price
OT_160...250E_C	3	OTZC13	
	4	OTZC14	
OT_315...400E_C	3	OTZC23	
	4	OTZC24	
OT_600...800E_C	3	OTZC33	
	4	OTZC34	
OT_1000...1250E_C	3	OTZC43	
	4	OTZC44	
OT_1600E_C	3	OTZC53	
	4	OTZC54	
OT_2000...2500E_C	3	OTZC63	
	4	OTZC64	

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### Reversing Bars

Suitable for switches	Order Code	Price
OT_160...250E_C	OTZR1	
OT_315...400E_C	OTZR2	
OT_600...800E_C	OTZR3	



Full range of product and technical information place this part number in a search engine and download

1SCC303003C0201

# OS switch fuses

## 16...1250 A 690V

### Manual operation



DIN	OS16FD	OS40FD	OS32GD	OS125GD
	OS35FD		OS63GD	OS160GD
BS	OS20FB		OS32GB	OS100GB
	OS32FB		OS63GB	OS125GB
				OS160GB
NFC	OS25FF		OS50GF	OS125GF
	OS32FF			
UL/CSA	OS30FACC		OS60GJ	OS100GJ
	OS30FAJ			

4

	OS Mini							OS						
Switch size [A]	16	20	25	30	32	35	40	32	50	60	63	100	125	160
AC23/400 V [kW]	7.5	11		15	15	18,5		15	22	30			55	75
AC23/415 V [kW]	7.5			15				15		30			55	55 75
480 V [HP]				15						30			60	
600 V [HP]				20						50			75	

### Motor operation



DIN	OSM32GD	OSM125GD
	OSM63GD	OSM160GD
BS	OSM32GB	OSM100GB
	OSM63GB	OSM125GB
		OSM160GB
NFC	OSM50GF	OSM125GF

	OSM					
Switch size [A]	32	50	63	100	125	160

Accessories

Optional handles

Extended shafts

Auxiliary contacts

Fourth poles

N & PE terminals

Solid links

Terminal shrouds

Connecting accessories

Conversion kits

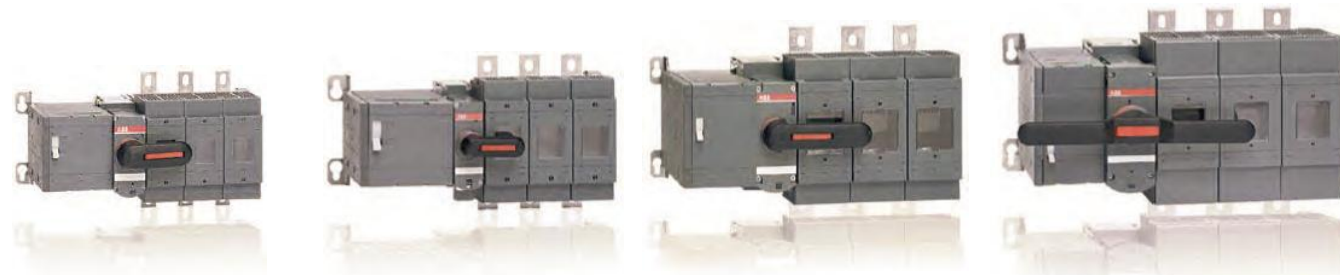
Blown fuse indicators

Locking accessories



OS200D	OS400D	OS630D	OS1250D
OS250D		OS800D	
OS200B	OS315B	OS630B	OS1250B
OS250B	OS400B	OS800B	
OS200J	OS400J	OS600J	OS1200L
		OS800L	

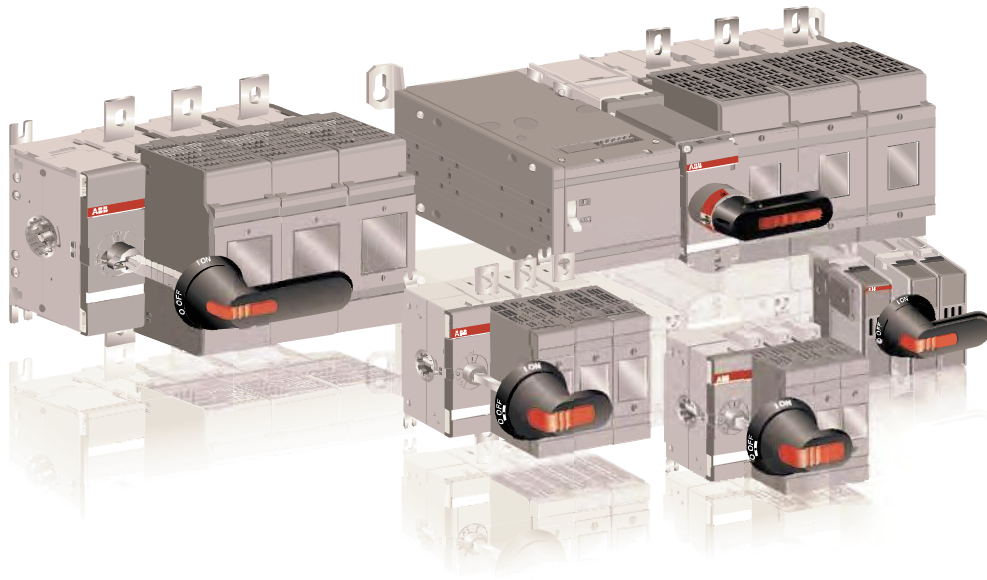
200 250	315 400	600 630 800	1200 1250
110 140	220	355 450	560
110 145	180 230	355 450	560
150	250	400 500	-
200	350	500 600	-



OSM200D	OSM400D	OSM630D	OSM1250D
OSM250D		OSM800D	
OSM200B	OSM315B	OSM630B	OSM1250B
OSM250B	OSM400B	OSM800B	

200 250	315 400	630 800	1250
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# Features of OS switch fuses 16 ... 1250 A 690V

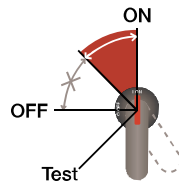
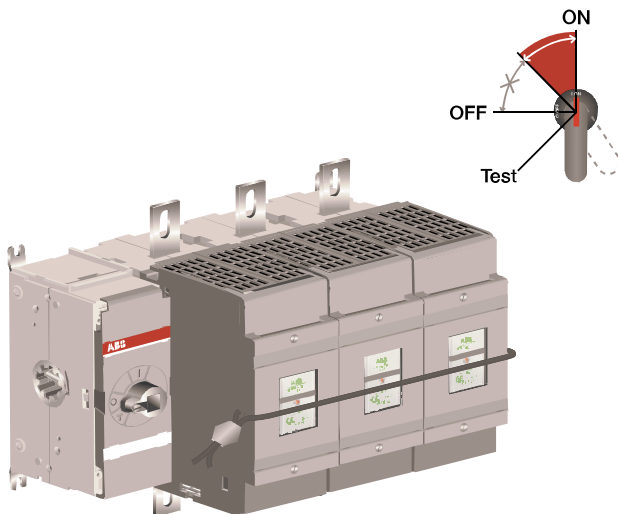


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## Features within the range of ABB switch fuses include single pole to four pole versions.

The switch fuse mechanism located in any position, increasing the ease of installation and adaptability to different types of cubicle designs (OS32G...1250).

A wide selection of accessories improve the usability of the switch fuses; 6 and 8- pole, changeover, by-pass and mechanically interlocked switch combinations can be built up by means of conversion kits.



The switch fuses are available for all types of fuse links, DIN, BS, NFC, UL, CSA. Switch fuses are also suitable for remote control by the motorized OSM versions.

## Designed for safety

The switch fuse ensures safe operation, protecting both people and equipment.

Designed and based on substantial experience of electrical safety, the switch fuse eliminates the risk of electrical accidents:

- The fuse covers cannot be opened while the switch fuse is in the ON-position and can be sealed in the closed position.
- The double insulated external operating handle eliminates the risk of touching live parts outside the box.
- The handle indicates the position of the contacts with complete reliability in all situations.
- The frame is made of robust plastic with excellent mechanical and thermal properties.
- Voltage output pins (as standard)
- Pole markings as standard

● You take no risks with OS16...1250 switch fuses

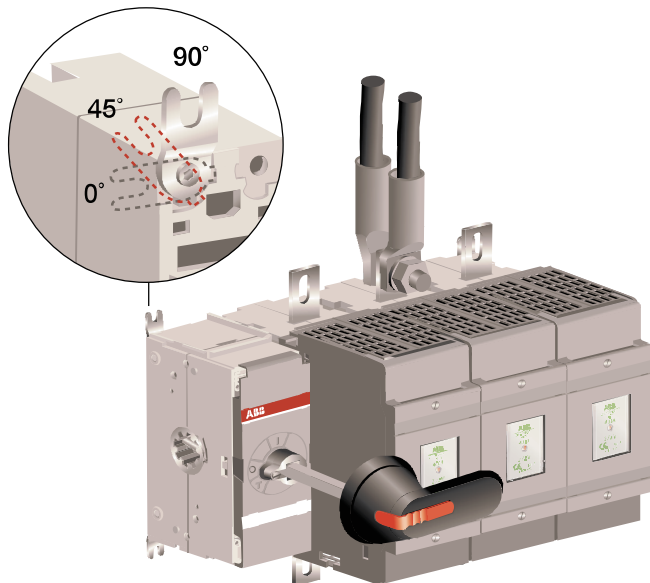


Switch fuses for extreme conditions - Numerous applications require switch fuses that can withstand extreme conditions. High voltages and high short circuit currents create a demand for superior performance without neglecting safety.

#### Easy, flexible installation

The OS 32...1250 switch fuse is easy to use and a snap to install according to your choice: the adjustable mounting feet allow both top and side mounting of the switch fuse.

The OS switch fuse offers you flexible cabling options. The high terminal positioning with space to the back plate simplifies the mounting of cables. It's also ideal for double cabling, which in turn saves on space.



#### Superior performance

- High CTI in supporting parts, resulting high  $U_i$  ratings
- The contact constructions are optimal, regardless of fuse type, DIN, BS, NFC or UL-type
- Meets the requirements for installation close to the main transformer up to 100 kA in heavy industry and in ships

- High performance level and smart design makes OS switch fuses suitable for all applications in low voltage networks.

#### Compact construction

- Intelligent construction in combination with a small number of components results in a very compact mechanism design
- Very small footprint area

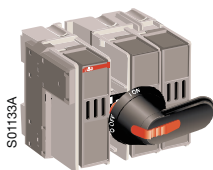
- Space savings mean cost reduction!

# Switch fuses

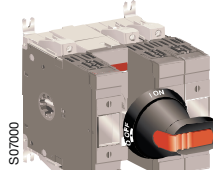
## OS20...160 BS -type

### Front operated switch fuses

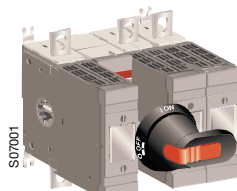
Including terminal bolt kit (OS100...160), a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.



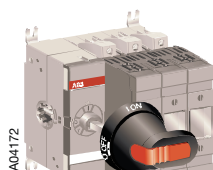
(OS Mini)  
OS20...32FB12A1  
OS32FB12A2  
OS32FB12F1



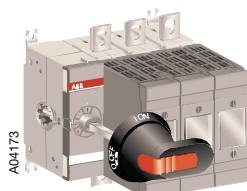
OS32G...63GB12P



OS100G...160GB12P



OS32G...63GB03P



OS100G...160GB03P



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Rated current AC-20...23 ≤ 690V [A]	Rated Power AC-23 400/500/690V [kW]	Fuse Size	No. of poles	Product Hierarchy 2100002	
				Order Code	Price

#### Mechanism between the poles - protected tunnel terminals, IP20

20	7.5/11/15	A1	3	OS20FB12A1-2	
			4	OS20FB22A1N1	
32	15/18/25	A1	3	OS32FB12A1	
			4	OS32FB22A1N1	
	15/18.5/22	A2	3	OS32FB12A2	
			4	OS32FB12A2N1	
32	15/18.5/22	A2, A3	2	OS32GB11P	
			3	OS32GB12P	
			4	OS32GB22N1P	
63	30/37/55	A2, A3	2	OS63GB11P	
			3	OS63GB12P	
			4	OS63GB22N1P	

#### Terminal bolt kit

100	55/55/90	A2, A3, A4 <sup>1)</sup>	2	OS100GB11P	
			3	OS100GB12P	
			4	OS100GB22N1P	
125	55/75/110	A2, A3, A4 <sup>1)</sup>	2	OS125GB11P	
			3	OS125GB12P	
			4	OS125GB22N1P	
160	75/90/132	A2, A3, A4 <sup>1)</sup>	2	OS160GB11P	
			3	OS160GB12P	
			4	OS160GB22N1P	

#### Mechanism at the end of the switch, protected tunnel terminals, IP20

32	15/18.5/22	A2, A3	2	OS32GB02P	
			3	OS32GB03P	
			4	OS32GB04N1P	
63	30/37/55	A2, A3	2	OS63GB02P	
			3	OS63GB03P	
			4	OS63GB04N1P	

#### Terminal Bolt Kit

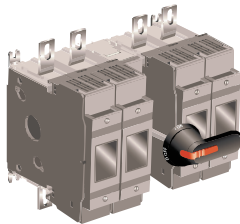
100	55/55/90	A2, A3, A4 <sup>1)</sup>	2	OS100GB02P	
			3	OS100GB03P	
			4	OS100GB04N1P	
125	55/75/110	A2, A3, A4 <sup>1)</sup>	2	OS125GB02P	
			3	OS125GB03P	
			4	OS125GB04N1P	
160	75/90/132	A2, A3, A4 <sup>1)</sup>	2	OS160GB02P	
			3	OS160GB03P	
			4	OS160GB04N1P	

# Switch fuses

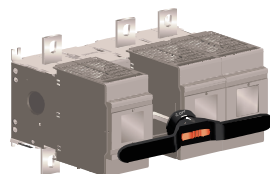
## OS200...1250 BS -type

### Front operated switch fuses - Mechanism between the poles

Including terminal bolt kit, a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.



OS250B22N2P



OS1250B12P

Rated current AC-20...23 ≤ 690V [A]	Rated Power AC-23 400/500/690V [kW]	Fuse Size	No. of poles	Product Hierarchy 2100002	
				Order Code	Price
200	110/132/200			OS200B12P	
				OS200B22N2P	
250	140/170/250	B1-B3	3	OS250B12P	
			4	OS250B22N2P	
315	160/220/220	B1-B4	3	OS315B12P	
			4	OS315B22N2P	
400	220/280/400	B1-B4	3	OS400B12P	
			4	OS400B22N2P	
630	355/450/630	C1-C2	3	OS630B12P	
			4	OS630B22N2P	
800	450/560/710	C1-C2	3	OS800B12P	
			4	OS800B22N2P	
1250 <sup>1)</sup> 1000 <sup>2)</sup>	560/710/1000	D1	3	OS1250B12P	
			4	OS1250B22N2P	

4

### Shafts, handles & bolt kits included as standard

Suitable for switches	Included shaft	Included handle	Included terminal bolts
OS20...32FB (OS Mini)	OXp6X150	OHB65J6	-
OS32...63G_P	OXp6X161	OHB45J6	-
OS100...160G_P	OXp6X161	OHB65J6	M8x25
OS200_P	OXp6X210	OHB65J6	M8x25
OS250_P	OXp6X210	OHB65J6	M10x30
OS315...400_P	OXp12X250	OHB95J12	M10x30
OS630...800_P	OXp12X280	OHB145J12	M12x40
OS1250_P	OXp12X395	OHB200J12	M12x50

#### OS20...160

N1 = Non-fused switched neutral on left side  
N2 = Non-fused switched neutral on the right side

<sup>1)</sup> AC-20...22  
<sup>2)</sup> AC-23  
<sup>3)</sup> Include a detachable neutral link integrated into the mechanism

#### OS200...125 0

N1 = Non-fused switched neutral on left side  
N2 = Non-fused switched neutral on the right side

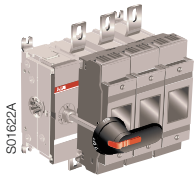
<sup>1)</sup> AC-20...22  
<sup>2)</sup> AC-23  
<sup>3)</sup> Include a detachable neutral link integrated into the mechanism



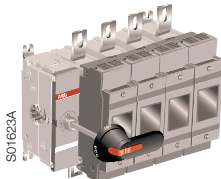
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# Switch fuses

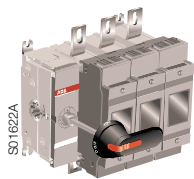
## OS200...1250 BS -type



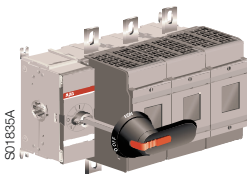
OS200B03P



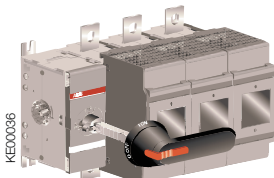
OS200B04P



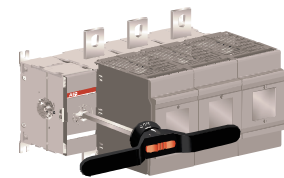
OS250B03P



OS400B03P



OS800B03P



OS1250B03P

### Front operated switch fuses - Mechanism at the end of the switch

Including terminal bolt kit, a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.

Rated current AC-20...23 ≤ 690V [A]	Rated Power AC-23 400/500/690V [kW]	Fuse Size	No. of poles	Product Hierarchy 2100002	
				Order Code	Price
200	110/132/200	B1-B2	2	OS200B02P	
			3	OS200B03P	
			3+N <sup>3)</sup>	OS200B03N3P	
			4	OS200B04N2P	
250	140/170/250	B1-B3	2	OS250B02P	
			3	OS250B03P	
			3+N <sup>3)</sup>	OS250B03N3P	
			4	OS250B04N2P	
315	160/220/220	B1-B4	2	OS315B02P	
			3	OS315B03P	
			3+N <sup>3)</sup>	OS315B03N3P	
			4	OS315B04N2P	
400	220/280/400	B1-B4	2	OS400B02P	
			3	OS400B03P	
			3+N <sup>3)</sup>	OS400B03N3P	
			4	OS400B04N2P	
630	355/450/630	C1-C2	2	OS630B02P	
			3	OS630B03P	
			3+N <sup>3)</sup>	OS630B03N3P	
			4	OS630B04N2P	
800	450/560/710	C1-C3	2	OS800B02P	
			3	OS800B03P	
			3+N <sup>3)</sup>	OS800B03N3P	
			4	OS800B04N2P	
1250 <sup>1)</sup> 1000 <sup>2)</sup>	560/710/1000	D1	2	OS1250B02P	
			3	OS1250B03P	
			3+N <sup>3)</sup>	OS1250B03N3P	
			4	OS1250B04N2P	

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Full range of product and technical information place this part number in a search engine and download  
**1SCC301001C0201**

N2 = Non-fused switched neutral on the right side  
 N3 = Include a detachable neutral link integrated into the mechanism

<sup>1)</sup> Max. fuse diameter 32 mm

<sup>2)</sup> AC-23

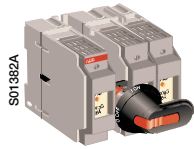
<sup>3)</sup> Include a detachable neutral link integrated into the mechanism

# Switch fuses

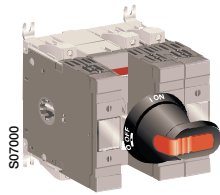
## OS40 ...160 DIN -type

### Front operated switch fuses

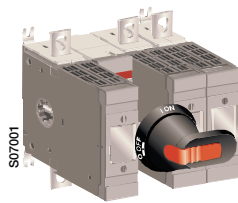
Including terminal bolt kit in OS125G...160G, a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.



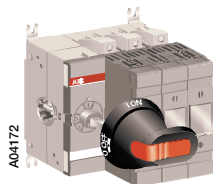
OS40FD12000 (OS Mini)



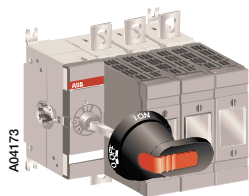
OS32G...63GD12P



OS125G...160GD12P



OS32G...63GD03P



OS125G...160GD03P

Rated current AC-20...23 ≤ 690V [A]	Rated Power AC-23 400/500/690V [kW]	Fuse Size	No. of poles	Product Hierarchy 2100002	
				Order Code	Price

#### Mechanism between the poles

Protected tunnel terminals, IP20

40	18.5/22/30	000	3	OS40FD12000	
			4	OS40FD22000N1	
32	15/18.5/22	000	3	OS32GD12P	
			4	OS32GD22N2P	
			4	OS32GD22FP	
63	30/37/55	000	3	OS63GD12P	
			4	OS63GD22N2P	
			4	OS63GD22FP	

#### Terminal bolt kit

125	55/75/110	000, 00	3	OS125GD12P	
			4	OS125GD22N2P	
			4	OS125GD22FP	
160	75/90/132	000, 00	3	OS160GD12P	
			4	OS160GD22N2P	
			4	OS160GD22FP	

#### Mechanism at the end of the switch,

Protected tunnel terminals, IP20

32	15/18.5/22	000	3	OS32GD03P	
			4	OS32GD04N2P	
			4	OS32GD04FP	
63	30/37/55	000	3	OS63GD03P	
			4	OS63GD04N2P	
			4	OS63GD04FP	

#### Terminal Bolt Kit

125	55/75/110	000, 00	3	OS125GD03P	
			4	OS125GD04N2P	
			4	OS125GD04FP	
160	75/90/132	000, 00	3	OS160GD03P	
			4	OS160GD04N2P	
			4	OS160GD04FP	

### Shafts, handles included as standard

Suitable for switches	Included shaft	Included handle	Included terminal bolts
OS40	OXp6X150	OHB65J6	-
OS32_...63G_	OXp6X161	OHB45J6	-
OS125_...160G_	OXp6X161	OHB65J6	M8x25



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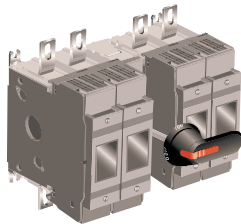
F = Fused switched neutral  
N1 = Non-fused switched neutral on the left side  
N2 = Non-fused switched neutral on the right side

# Switch fuses

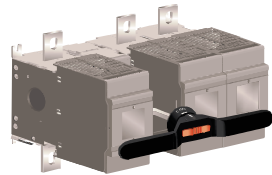
## OS200 ...1250 DIN -type

### Front operated switch fuses - Mechanism between the poles

Including terminal bolt kit, a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths. OS1250DA: a fuse replacement tool is integrated in the fuse cover.



OS250D22N2P



OS1250D12P

4

Rated current AC-20...23 ≤ 690V [A]	Rated Power AC-23 400/500/690V [kW]	Fuse Size	No. of poles	Product Hierarchy 2100002	
				Order Code	Price
<b>Protected tunnel terminals, IP20</b>					
200	110/132/200	00	3	OS200DZ12P	
			2	OS200D11P	
			3	OS200D12P	
200	110/132/200	0	4	OS200D22N2P	
			2	OS250D11P	
			3	OS250D12P	
250	145/170/250	0-1	4	OS250D22N2P	
			2	OS400D11P	
			3	OS400D12P	
400	230/280/400	0-2	4	OS400D22N2P	
			2	OS630D11P	
			3	OS630D12P	
630	355/450/630	3	4	OS630D22N2P	
			2	OS800D11P	
			3	OS800D12P	
800	450/560/710	3	4	OS800D22N2P	
			3	OS1250D11P	
			4	OS1250D12P	
1250 <sup>1)</sup> 1000 <sup>2)</sup>	560/710/1000	4	3	OS1250DA11P	
			4	OS1250DA12P	
		4a	3	OS1250DA11P	
			4	OS1250DA12P	

### Shafts, handles included as standard

Suitable for switches	Included shaft	Included handle	Included terminal bolts
OS200_P	OXp6X210	OHB65J6	M8x25
OS250_P	OXp6X210	OHB45J6	M10x30
OS400_P	OXp12X250	OHB95J12	M10x30
OS630...800_P	OXp12X280	OHB145J12	M12x40
OS1250_P	OXp12X395	OHB200J12	M12x50



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F = Fused switched neutral  
N2 = Non-fused switched neutral on the right side  
N3 = Include a detachable neutral link integrated into the mechanism

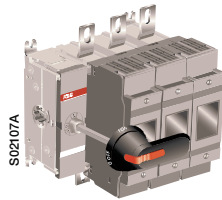
<sup>1)</sup> AC-20...22  
<sup>2)</sup> AC-23  
<sup>3)</sup> Max. fuse diameter 32 mm

# Switch fuses

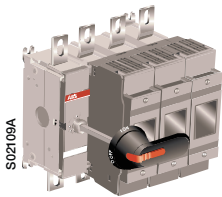
## OS200 ...1250 DIN -type

### Front operated switch fuses - Mechanism at the end of the switch

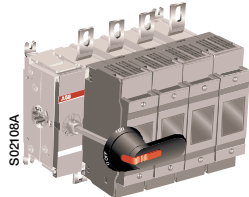
Including terminal bolt kit, a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths. OS1250DA: a fuse replacement tool is integrated in the fuse cover.



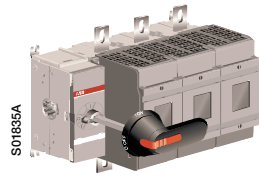
OS200D03P



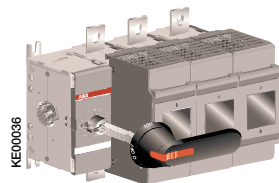
OS250D03N3P



OS250D04P



OS400D03P



OS630D03P



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Rated current AC-20...23 ≤ 690V [A]	Rated Power AC-23 400/500/690V [kW]	Fuse Size	No. of poles	Product Hierarchy 2100002	
				Order Code	Price
Protected tunnel terminals, IP20					
200	110/132/200	00	3	OS200DZ03P	
			4	OS200DZ04N2P	
200	110/132/200	0	2	OS200D02P	
			3	OS200D03P	
			3+N	OS200D03N3P	
			4	OS200D04N2P	
			4	OS200D04FP	
250	145/170/250	0-1	2	OS250D02P	
			3	OS250D03P	
			3+N	OS250D03N3P	
			4	OS250D04N2P	
			4	OS250D04FP	
400	230/280/400	0-2	2	OS400D02P	
			3	OS400D03P	
			3+N	OS400D03N3P	
			4	OS400D04N2P	
			4	OS400D04FP	
630	355/450/630	3	2	OS630D02P	
			3	OS630D03P	
			3+N	OS630D03N3P	
			4	OS630D04N2P	
			4	OS630D04FP	
800	450/560/710	3	2	OS800D02P	
			3	OS800D03P	
			3+N	OS800D03N3P	
			4	OS800D04N2P	
			4	OS800D04FP	
1250 <sup>1)</sup> 1000 <sup>2)</sup>	560/710/1000	4	2	OS1250D02P	
			3	OS1250D03P	
			3+N	OS1250D03N3P	
			4	OS1250D04N2P	
1250 <sup>1)</sup> 1000 <sup>2)</sup>	560/710/1000	4a	4	OS1250D04FP	
			2	OS1250DA02P	
			3	OS1250DA03P	
			3+N	OS1250DA03N3P	
			4	OS1250DA04N2P	
4	OS1250DA04FP				

4

F = Fused switched neutral  
 N2 = Non-fused switched neutral on the right side  
 N3 = Include a detachable neutral link integrated into the mechanism

<sup>1)</sup> AC-20...22

<sup>2)</sup> AC-23

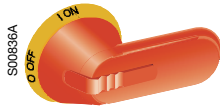
<sup>3)</sup> Max. fuse diameter 32 mm

# Switch fuses accessories

## Operating handles

### For front operated switch fuses

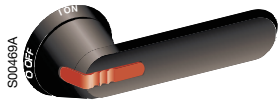
OH\_handles: IP65, NEMA 1, 3R, 12, padlockable with three padlocks in OFF-position, door interlock in ON-position. Screw fixing from the back side of the handle. No screws on the front ensures double insulation. Excluding metallic handles.



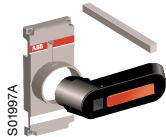
OHY\_



OHB\_



OHB\_



OTV\_



OHB\_

4

			Product Hierarchy 2200003		
Colour	Handle Length [mm]	Suitable for switches	Order Code	Price	
<b>For shaft diameter 6mm</b>					
Black and red-yellow: I-O/ON-OFF, grey: I/O					
Black	45	OS Mini ... 250	OHB65J6		
Yellow-Red			OHY45J6		
Grey			OHG45J6		
Black	65		OHB65J6		
Yellow-Red			OHY65J6		
Grey			OHG65J6		
Black	80		OHB80J6		
Plastic handles, black and red/yellow: Test/I-O/ON-OFF, grey: Test/I-O					
Black	45		OS Mini ... 250	OHB45J6T	
Yellow-Red	65	OHB65J6T			
Grey		OHY65J6T			
Black	80	OHG65J6T			
		OHB80J6T			
Stainless steel handles: I-O/ON-OFF, padlockable with 3 padlocks in the OFF position, door interlock in the ON position, IP66 (NEMA 4X)					
Metallic	65	OS Mini ... 250	OHM65L6		
<b>For shaft diameter 12mm</b>					
Plastic handles, black and red/yellow: I-O/ON-OFF, grey: I-O					
Black	95	OT315...400	OHB95J12		
Yellow-Red			OHY95J12		
Grey			OHG95J12		
Indication: Test-OFF-ON/Test-O-I, padlockable with 3 padlocks in the OFF position, door interlock in the ON position, IP66 (NEMA 4X)					
Black	95	OT315...400	OHB95J12T		
Yellow-Red			OHY95J12T		
Plastic handles, black and red/yellow: I-O/ON-OFF, grey: I-O					
Black	125	OT630...800	OHB125J12		
Yellow-Red			OHY125J12		
Grey			OHG125J12		
Black	145		OHB145J12		
Yellow-Red			OHY145J12		
Grey			OHG145J12		
Black	175		OHB175J12		
Yellow-Red			OHY175J12		
Grey			OHG175J12		
Indication: Test-OFF-ON/Test-O-I					
Black	125		OT630...800	OHB125J12T	
Yellow-Red				OHY125J12T	
Black	145	OHB145J12T			
Yellow-Red		OHY145J12T			
Black	175	OHB175J12P			
Plastic handles, black and red/yellow: I-O/ON-OFF					
Black	2x150	OT1200...1250	OHB150J12P		
Yellow-Red			OHY150J12P		
Black	2x200		OHB200J12P		
Yellow-Red			OHY200J12P		
Indication: Test-OFF-ON/Test-O-I					
Black	2x200	OT1200...1250	OHB200J12PT		
Yellow-Red			OHY200J12PT		



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# Switch fuses accessories

## Operating handles

Product Hierarchy 2200003				
Colour	Handle Length [mm]	Suitable for switches	Order Code	Price
<b>For shaft diameter 12mm</b>				
Stainless steel handles: I-O/ON-OFF, padlockable with 3 padlocks in the OFF position, door interlock in the ON position, IP66 (NEMA 4X)				
Metallic	125	OT1200...1250	OHM125J12	
	175		OHM175J12	
	275		OHM275J12	
Metallic handles: padlockable with 3 padlocks in the OFF position, door interlock in the ON position.				
Black 1-O	220	OT1200...1250	YASDA7	
Black ON-OFF			YASDA8	
Black I-O			320	YASDA35

Door interlocking in ON-position means that the door cannot be opened, when the handle is in the ON-position. This can be defeated in IP65 types to allow authorised personnel access for inspection

### Direct mounted handles

Plastic handles, panel board handle, can be padlocked in the OFF-position. Includes a special shaft. The handle can also be used with a standard shaft as padlocking device.

#### For front operated OS Mini

Indication I-O/ON-OFF/TEST. Handle padlockable with 2 padlocks in the OFF- and Test-positions when the door is open. Max. bail dia 8 mm.

Colour	Order Code	Price
Black	OHBS5	

#### For side operated OS Mini

Padlockable with three padlocks in the OFF- position when the door is open. Max. bail dia 6 mm.

Colour	Order Code	Price
Black	OHB4	

#### For front operated OS 32G...1250

Test OFF-ON/Test O-I indication  
Padlockable with three padlocks in the OFF-position, optionally also in the ON-position.  
Includes shaft and mechanism cover.

Suitable for switches	Colour	Order Code	Price
OS32G...160G,	Black	OSV200BK	
OS200B/J_K	Yellow-red	OSVY200BK	
OS200D...250D/B_K	Black	OSV250DK	
	Yellow-red	OSVY250DK	
OS400D_K	Black	OSV400DK	
	Yellow-red	OSVY400DK	
OS315...400B/J_K	Black	OSV400BK	
	Yellow-red	OSVY400BK	
OS600...800_K	Black	OSV800DK	
OS1200...OS1250_K	Black	OSV1250DK	

#### Fuse replacement handles

DIN fuse sizes	Description	Order Code	Price
000,00,1,2,3	Compact	OFAE 504	
	690 V	OFAE 505	

#### Extension ring for pistol type handles

Colour	Suitable for handles	Order Code	Price
Black	OHB_	OHZX14	



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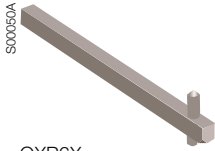
# Switch fuses accessories

## Extended shafts

### Extended shafts

Product Hierarchy 2200003

Shaft (mm)	Front operated H / mm	Side operated H / mm	Order Code	Price
<b>For OS 16...35 (Mini) <sup>2)</sup>, shaft diameter 6 mm</b>				
150	135...210	154...166	OSP6X150 <sup>5)</sup>	
170	155...230	174...186	OSP6X170	
265	250...325	269...281	OSP6X265	
400	385...460	404...416	OSP6X400	
150	135...210	154...166	OSP6X150-45 <sup>1)</sup>	
170	155...230	174...186	OSP6X170-45 <sup>1)</sup>	
265	380...460	269...281	OSP6X265-45 <sup>1)</sup>	
400	380...460	404...416	OSP6X400-45 <sup>1)</sup>	
<b>For OS 40 (Mini) <sup>2)</sup>, shaft diameter 6 mm</b>				
150	135...210	235...243	OSP6X150 <sup>5)</sup>	
170	155...230	255...363	OSP6X170	
265	250...325	352...360	OSP6X265	
400	385...460	487...495	OSP6X400	
150	135...210	235...243	OSP6X150-45 <sup>1)</sup>	
170	155...230	255...363	OSP6X170-45 <sup>1)</sup>	
265	250...325	352...360	OSP6X265-45 <sup>1)</sup>	
400	385...460	487...495	OSP6X400-45 <sup>1)</sup>	
<b>For OS 32G...63G <sup>4)</sup>, shaft diameter 6 mm</b>				
63		161...167	OSP6X63	
90		223 ... 229	OSP6X90	
130	137 ... 174 <sup>7)</sup>	263 ... 263	OSP6X130	
161	138 ... 205		OSP6X161 <sup>3)</sup>	
210	187 ... 254		OSP6X210	
290	267 ... 334		OSP6X290	
360	337 ... 404		OSP6X360	
430	407 ... 474		OSP6X430	
210	187 ... 254		OSP6X210-45 <sup>1)</sup>	
290	267 ... 334		OSP6X290-45 <sup>1)</sup>	
360	337 ... 404		OSP6X360-45 <sup>1)</sup>	
<b>For OS 200...250 DIN-type, shaft diameter 6 mm</b>				
161	160 ... 205		OSP6X161	
210	189 ... 254		OSP6X210 <sup>3)</sup>	
290	269 ... 334		OSP6X290	
<b>For OS 200...250 BS-type, shaft diameter 6 mm</b>				
161	140 ... 205		OSP6X161	
210	189 ... 254		OSP6X161	
290	269 ... 334		OSP6X290	



OSP6X\_



OSP\_X\_-45

4



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<sup>1)</sup> The shaft position is rotated 45 degrees

<sup>2)</sup> Side operated, 4-pole: add 36 mm

<sup>3)</sup> Included as standard in P-types

<sup>4)</sup> Side operated 3-pole OS60GJ: add 33mm, 4-pole types: OS32...63GD/GB: add 23.5 mm, OS60GJ: add 68mm

<sup>5)</sup> Included as standard in front operated types

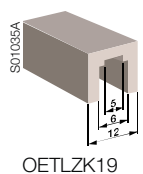
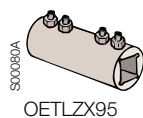
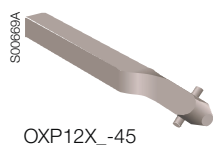
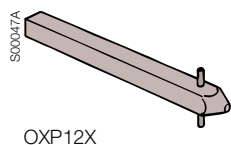
<sup>6)</sup> OS32...63GB/GF: 115...174

<sup>7)</sup> OS100GJ: 113...174, OS100GB...160GB: 121...174

<sup>8)</sup> Side operated 4-pole types: add 35mm

# Switch fuses accessories

## Extended shafts



### Extended shafts

Product Hierarchy 2200003

Shaft (mm)	Front operated H / mm	Order Code	Price
<b>For OS 315...400, shaft diameter 12 mm</b>			
250	230...325	EXP12X250 <sup>2)</sup>	
280	260...355	EXP12X280	
325	305...400	EXP12X325	
395	375...470	EXP12X395	
465	445...540	EXP12X465	
535	515...610	EXP12X535	
<b>For OS 630...800, shaft diameter 12 mm</b>			
280	258...382	EXP12X280 <sup>2)</sup>	
325	303...427	EXP12X325	
395	373...497	EXP12X395	
465	443...567	EXP12X465	
535	513...637	EXP12X535	
280	258...382	EXP12X280-45 <sup>1)</sup>	
325	303...427	EXP12X325-45 <sup>1)</sup>	
<b>For OS 1200...1250, shaft diameter 12 mm</b>			
395	371...500	EXP12X395	
465	441...570	EXP12X465	
535	511...640	EXP12X535	
<b>Shaft extension socket - for extending the shaft of combination attachment.</b>			
12 diameter		OETLZX95	
<b>Adapters for extension socket - adapters to place inside of OETLZX 95 to connect shafts of different sizes.</b>			
6/6, 6/12		OETLZK19	

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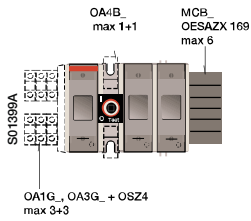


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# Switch fuses accessories

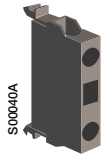
## Auxiliary contacts



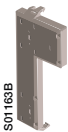
OS Mini



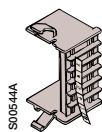
OA\_G



MCB\_



OSZ4



OESAZX169

4

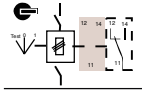
### Auxiliary contacts

#### OS Mini

#### Auxiliary contacts for OS Mini

Mounting to the switch mechanism, auxiliary/test contacts. Max. two change over contacts.

#### Change-over contacts



Handle position	Main contacts		Aux. / Test contacts N.O.		Order Code	Price
	Test gap	open closed	open closed	open closed		
Single pole contacts > 3mm contact gap	0	open closed	open closed	open closed	OA4B1C	
1NO					OA4B10	
1NC					OA4B01	
Mounting on the side of the switch with aux. frame OESAZX169						
1NO					MCB-10	
1NC					MCB-01	
Snap-on mounting on the switch, by using a frame OSZ4. IP20. NO contacts are provided with a positive opening feature. Units/type = 1 piece. Types _AU have gold plated contacts for harsh environments and low operating voltages.						
1NO					OA1G10	
1NC					OA3G01	
1NO					OA1G10AU	
1NC					OA3G01AU	

#### Mounting frames for auxiliary contacts of OS Mini

Description	Order Code	Price
Frame for auxiliary contacts OA1G10 & OA3F01 & for fuse monitor. Max. 6 auxiliary contacts can be fitted.		
Mounting on the left side of the switch	OSZ4	
Frame for MCB_ auxiliary contacts. Not suitable for side operated switches. Max. 6 auxiliary contacts can be fitted.		
Mounting on the right side of the switch	OESAZX169	



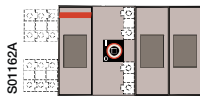
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# Switch fuses accessories

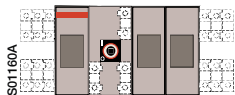
## Auxiliary contacts

### Auxiliary contacts for OS32G ... 1250

The "test" contacts operate in ON- and OFF-positions as well as when the handle is turned to TEST position = 45 degrees over the OFF-position. The "test indication" contacts operate only when the handle is turned to TEST-position. See the function table below. The OA1G10 (N.O.) or OA3G01 (N.C.) auxiliary contact blocks can be used as standard auxiliary contacts, "test" or "test indication" contacts. The desired functions are achieved when an auxiliary contact block is installed in a specific place shown in the mounting instruction. In order to activate the "test" and "test indication" features a handle with test function is required.



OS 30...60



OS 100...200

Handle position	Main contacts	Aux./Test contacts N.O.	Test indication contacts N.O.
Test	open	closed	closed
0	open	open	open
I	closed	closed	open

Maximum number of contact blocks, "Aux./test" contacts and "test indication" contacts, see the table below. Standard versions include all except for N3-types which are equipped with integrated neutral through the mechanism.

Maximum number of auxiliary contacts under the mechanism cover

Pole version	Standard	N3	Standard	N3	Standard	N3
Maximum number of contact blocks	4	0	8	4	12	8
Aux./Test contacts	4	0	4	2	8 <sup>1)</sup>	6 <sup>2)</sup>
Test indication contacts	2	0	4	2	4	2

### Auxiliary contacts for OS32G ... 1250

Mounting on the left side of the switch: Max. 8 auxiliary contact blocks with the OEA28 module.

Mounting under the mechanism cover: - OS200...250: Max 4 test contacts or 2 test contacts + 2 test indication contacts.

- OS315...400: Max 4 test contacts and 4 test indication contacts. The test contacts can be used as standard auxiliary contacts as well. Auxiliary contacts for 3 + N types only with the OEA28 module.



OEA28

OA\_G\_

Description	Product Hierarchy 2100004	
	Order Code	Price
Module for auxiliary contacts screw mounting to the left side of the switch	OEA28	
1 NO contact block	OA1G10	
1 NC contact block	OA3G01	

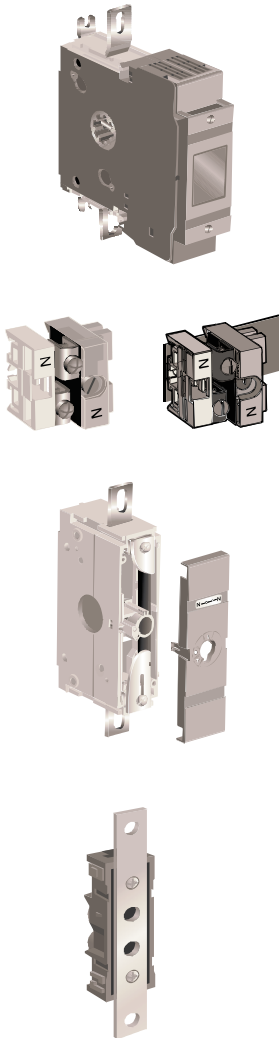


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# Switch fuses accessories

## 4th poles

4



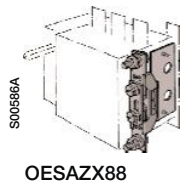
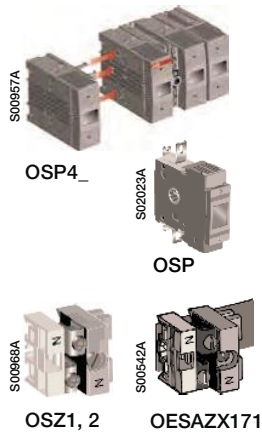
4th poles		Product Hierarchy 2200003	
Suitable for switches	Mounting side	Order Code	Price
<b>Fusible 4 poles</b>			
OS100GB ... 160GB	Left/right	OSP160GB	
OS125GD ... 160GD		OSP160GD	
OS200B		OSP200B	
OS200D		OSP200D	
OS250B		OSP250B	
OS250D		OSP250D	
OS315B ... 400B		OSP400B	
OS400D		OSP400D	
OS630 ... 800D		OSP800B	
OS630 ... 800B		OSP800D	
OS1250D		OSP1250D	
OS1250DA		OSP1250DA	
OS1250B		OSP1250DB	
<b>Switched 4 poles</b>			
OS100G ... 160G	Left/right	OSP160GN	
OS200_		OSP200N	
OS250_		OSP250N	
OS400_		OSP400N	
OS630 ... 800		OSP800N	
OS1200 ... 1250		OSP1250N	
<b>For OS 200...250 DIN-type, shaft diameter 6 mm</b>			
161	160 ... 205		
210	189 ... 254		
290	269 ... 334		
<b>For OS 200...250 BS-type, shaft diameter 6 mm</b>			
161	140 ... 205		
210	189 ... 254		
290	269 ... 334		



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# Switch fuses accessories

## Neutral links



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1SCC311013C0201

### Neutral links

			Product Hierarchy 2100004	
Max. wire	H/W/D [mm]	Mounting holes	Order Code	Price
<b>For OS Mini</b> Detachable, mounting on the side of the switch, on the mounting plate or DIN-rail.				
16mm <sup>2</sup> Cu	39/41/40	ø 4.2, distance 32	OESAZX171	
<b>For OS/OSM 32G ... 160G</b> Detachable, mounting onto the base plate or DIN-rail.				
16mm <sup>2</sup> Cu	39/41/40	ø 4.2, distance 32	OSZ1	
35mm <sup>2</sup> Cu	39/44/45	ø 4.2, distance 365	OSZ2	
<b>For OS/OSM 100G ... 1250</b> Mounting with screws (included) onto either side of the switch (OXN250 to OS200...250) or on the base plate (OXN250 to OS1250)				
OS/OSM32G ... 250			OXN250	
OS/OSM315G ... 400			OXN400	
OS/OSM630G ... 800			OXN800S	
OS/OSM1250			OXN1250S	

I <sub>n</sub> [A]	Terminal size (WxD) [mm]; bolt size	Order Code	Price
<b>Mounting separately to the base plate</b>			
250	12x3 M6	OESAZX162	
315	20x3 M81	OESAZX165	
400	25x4 M10	OESAZX162	
1000	40x5 M12	OESAZX160	

### Solid links

		Product Hierarchy 2100004	
Suitable for	Order Code	Price	
OS20FB...OS32FB_A1	OESAZG98		
OS32GD...OS160GD	OFAW000		
OS32FB...A2...OS63GB	OESAZG5		
OS100GB...OS160GB	OESAZS36		
OS100GJ	OESAZS175		
OS200...250B,J	OEZL1		
OS315...400B,J	OESAZK98		
OS630B...800B	OESAZL79		
OS600J, 800...1200L	OEZNL8		
OS1250B	OEZNL810		
OS250D	OFAW1		
OS400D	OFAW2		
OS630/800D	OFAW3		

# Switch fuses accessories

## Terminal shrouds



OSS160G3\_



OSS160T1\_



OSS\_L



OSS\_S

4

### Terminal shrouds

Suitable Switch	Pieces	Handle Type	Product Hierarchy 2100004	
			Order Code	Price
OS 100G ... 160G	3	Long type	OSS160GG1L/3	
		Short type	OSS160GG1S/3	
	4	Long type	OSS160GG1L/4	
		Short type	OSS160GG1S/4	
OS/OSM 200	3	Long type	OSS200G1L/3	
		Short type	OSS200G1S/3	
	4	Long type	OSS200G1L/4	
		Short type	OSS200G1S/4	
OS/OSM 250	3	Long type	OSS250G1L/3	
		Short type	OSS250G1S/3	
	4	Long type	OSS250G1L/4	
		Short type	OSS250G1S/4	
OS/OSM 315...400	3	Long type	OSS400G1L/3	
		Short type	OSS400G1S/3	
	4	Long type	OSS400G1L/4	
		Short type	OSS400G1S/4	
OS/OSM 630...800	3	Long type	OSS800G1L/3	
		Short type	OSS800G1S/3	
	4	Long type	OSS800G1L/4	
		Short type	OSS800G1S/4	
OS 1200...1250/ OSM 1250_N3	3	Long type	OSS1250G1L/3	
		Short type	OSS1250G1S/3	
	4	Long type	OSS1250G1L/4	
		Short type	OSS1250G1S/4	

### Terminal shrouds suitable for mechanisms with detachable integrated neutral (N3 versions)

OS/OSM 100G...250_N3	1	Long type	OTS250G1L	
		Short type	OTS250G1S	
OS/OSM 315...400_N3		Long type	OSS250G1L	
		Short type	OSS250G1S	
OS/OSM 630...800_N3		Long type	OTS800G1L	
		Short type	OTS800G1S	
OS 1200...1250_N3/ OSM 1250_N3	Long type	OTS1600G1L		
	Short type	OTS1600G1S		



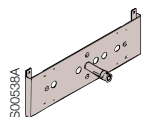
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# Switch fuses accessories

## Conversion kits



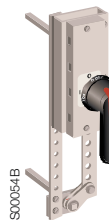
OW\_6DS\_



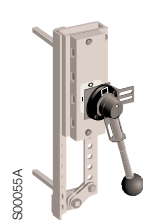
OESAZW2



OETLZW9



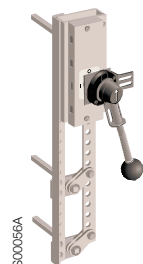
OTZW25,  
OETLZW11



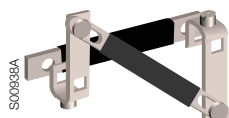
OETLZW12



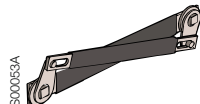
OTZW26



OETLZW13



OTZW10



OETLZW3, 14, 15



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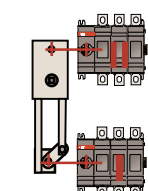
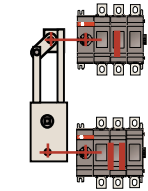
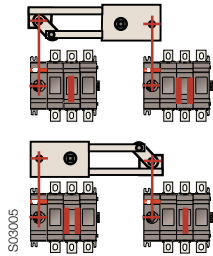
### For front operated combination switches

Product Hierarchy 2100004

Suitable for switches	Remarks	Shaft distance [mm]	Order Code	Price
<b>6 and 8-pole switch mechanism</b>				
Parallel attachment for connecting 3- and 4-pole switches. The switches work simultaneously.				
<b>6-pole switches</b>				
OS Mini	Two 3-pole switches needed		OWP6DS1	
<b>6-pole switches</b>				
OS Mini	Two 4-pole switches needed		OWP6DS2	
The attachment levers are provided with holes, enabling different shaft distances. The combination switches can be mounted either horizontally or vertically.				
OS32G-250	Two 3- or 4-pole switches needed	45+(0-13)x15	OESAZW2	
OS315-400		60+(0-19)x20	OETLZW9	
<b>Change-over switch mechanism</b>				
Two switches connected with a mechanism operating into I-O-II positions.				
OS Mini	Two 3-pole switches needed		OWC6DSH1	
	Two 4-pole switches needed		OWC6DSH2	
OS32G-250	Two 3- or 4-pole switches needed	210+(0 - 18)x20	OTZW25	
OS315-400		210+(0 - 11)x20	OETLZW11	
		210+(0 - 20)x20	OETLZW12	
<b>By-pass switch mechanism</b>				
A combination of two switches in parallel with a third switch for change-over operation to pass- by, for example, a breaker for maintenance. The by-pass attachment can be used together with another combination attachment.				
OS32G - 250	Three 3- or 4-pole switches needed	Between 1 and 2: 210+(0 - 9)x20 Between 1 and 3: 250+(0 - 9)x20	OTZW26	
OS315-400		Between 1 and 2: 210+(0 - 18)x20 Between 1 and 3: 250+(0 - 18)x20	OETLZW13	
<b>Mechanical interlock mechanism</b>				
Prevents one switch from closing to ON -position, if the other is not in OFF - position.				
OTZW/OETLZW-types: When mounted upside down, prevents one switch from opening to OFF-position, if the other is not in the ON-position. (UPS-usage, make-before-break)				
OS Mini	Two 3-pole switches needed		OWM6DS1	
	Two 4-pole switches needed		OWM6DS2	
OS32G-250	Two 3- or 4-pole switches needed	190	OTZW10	
OS315-800		250	OETLZW14	
OS315-800		300	OETLZW3	
OS315-1250		500	OETLZW15	

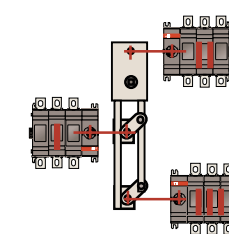
# Switch fuses accessories

## Conversion kits & locks

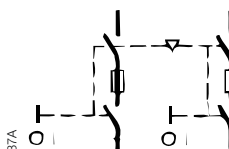


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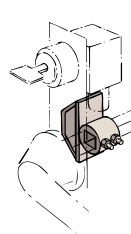
Change-over switches



By-pass switches



Mechanical interlock



OETLZW5

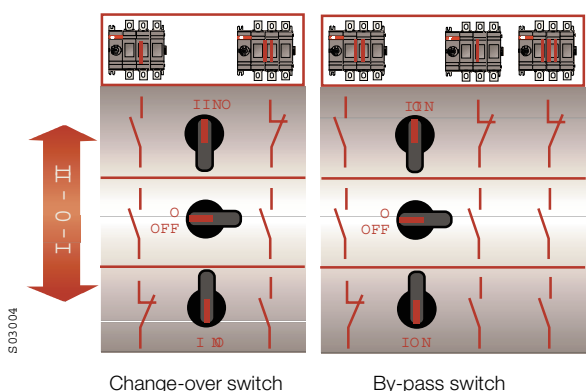


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### The shafts and handles for conversion kits

Conversion kit type	To be ordered separately		Included in the conversion kit delivery		The standard handle or shaft of one of the combined switches can be used	
	Shaft	Handle	Shaft	Handle	Shaft	Handle
<b>6 and 8-pole switches</b>						
OWP6DS1	x	-	-	-	-	x
OWP6DS2	x	-	-	-	-	x
OESAZW2	-	-	x (2 pcs)	OHB145J12	-	-
OETLZW9	-	-	-	-	x	x
<b>Change-over switches</b>						
OWC6DSH1	x (length min. 170mm)	-	-	OHB65J6E011	-	-
OWC6DSH2	x (length min. 170mm)	-	-	OHB65J6E011	-	-
OTZW25	-	-	x (2 pcs)	OHB95J12E011	-	-
OETLZW11	-	-	x (2 pcs)	OHB145J12E011	-	-
OETLZW12	-	-	x (2 pcs)	YASDA21	-	-
<b>By-pass switches</b>						
OTZW26	-	-	x (3 pcs)	OHB95J12E011	-	-
OETLZW13	-	-	x (3 pcs)	YASDA 6	-	-
<b>Mechanical interlock</b>						
OWM6DS1	x (2 pcs, length min. 170mm)		x (2 pcs)	-	-	-
OWM6DS2	x (2 pcs, length min. 170mm)		x (2 pcs)	-	-	-
OTZW10	-	-	-	-	x	x
OETLZW14	-	-	-	-	x	x
OETLZW3	-	-	-	-	x	x
OETLZW15	-	-	-	-	x	x

### The functional diagram



Change-over switch

By-pass switch

### Cam attachment

Suitable for switches

OS16 ... 250

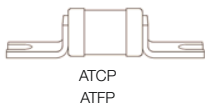
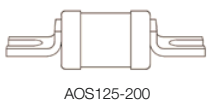
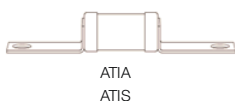
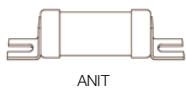
OS 315 ... 1250

### Product Hierarchy 2300001

Order Code	Price
OELTZW16	
OELTZW5	

# Switch fuses

## BS 88 fuses



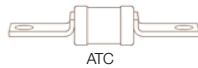
Fuse Size	Product Hierarchy 2000002	
	Order Code	Price
2A A1 fuselink	ANIT2	
4A A1 fuselink	ANIT4	
6A A1 fuselink	ANIT6	
10A A1 fuselink	ANIT10	
16A A1 fuselink	ANIT16	
20A A1 fuselink	ANIT20	
25A fuselink	ANIT25	
32A fuselink	ANIT32	
2A A2 fuselink	ATIA2	
4A A2 fuselink	ATIA4	
6A A2 fuselink	ATIA6	
10A A2 fuselink	ATIA10	
16A A2 fuselink	ATIA16	
20A A2 fuselink	ATIA20	
25A A2 fuselink	ATIA25	
32A A2 fuselink	ATIA32	
35A A3 fuselink	ATIS35	
40A A3 fuselink	ATIS40	
50A A3 fuselink	ATIS50	
63A A3 fuselink	ATIS63	
80A fuselink	AOS80	
100A fuselink	AOS100	
125A fuselink	AOS125	
160A fuselink	AOS160	
200A fuselink	AOS200	
80A A4 fuselink	ATCP80	
100A A4 fuselink	ATCP100	
125A fuselink	ATFP125	
160A fuselink	ATFP160	
200A fuselink	ATFP200	



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# Switch fuses

## BS 88 fuses



ATC

Fuse Size	Product Hierarchy 2000002	
	Order Code	Price
80A B1 fuselink	ATC80	
100A B1 fuselink	ATC100	
125A B2 fuselink	ATF125	
160A B2 fuselink	ATF160	
200A B2 fuselink	ATF200	
250A B3 fuselink	ATKF250	
315A B3 fuselink	ATKF315	
355A B4 fuselink	ATMF355	
400A B4 fuselink	ATMF400	
450A Fuselink Fixing Centre: 111	ATMF450	
500A Fuselink Fixing Centre: 111	ATMF500	
560A Fuselink Fixing Centre: 111	ATMF560	
630A Fuselink Fixing Centre: 111	ATMF630	

4



ATF  
ATKF  
ATMF  
ATKM

250A fuselink	ATKM250	
315A fuselink	ATKM315	
355A C1 fuselink	ATM355	
400A C1 fuselink	ATM400	
450A C2 fuselink	ATTM450	
500A C2 fuselink	ATTM500	
630A C2 fuselink	ATTM630	
800A C3 fuselink	ATLM800	

2A F1 fuselink	ANS2	
4A F1 fuselink	ANS4	
6A F1 fuselink	ANS6	
10A F1 fuselink	ANS10	
16A F1 fuselink	ANS16	
20A F1 fuselink	ANS20	
25A F1 fuselink	ANS25	
20A F2 fuselink	AES20	
25A F2 fuselink	AES25	
32A F2 fuselink	AES32	
40A F2 fuselink	AES40	
50A F2 fuselink	AES50	
63A F2 fuselink	AES63	



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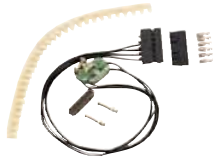
# Slimline XR

## Slimline switch fuses and accessories



### XR Switch Fuse 3-pole - 185mm busbar distance BS - British Standard

Description	Product Hierarchy 2300001	
	Order Code	Price
XR Slimline 63A 3P	1SEP102244R3300	
XR Slimline 100A 3P	1SEP102245R3300	
XR Slimline 160A 3P	1SEP102246R3300	
XR Slimline 250A 3P	1SEP102247R3300	
XR Slimline 400A 3P	1SEP102248R3300	
XR Slimline 630A 3P	1SEP102249R3300	



Accessories		
Description	Order Code	Price
XR 50mm Ventilated Blind Cover	1SEP408528R0001	
XR 00 Auxillary Switch 1NO	1SEP408504R0001	
XR 00 Auxillary Switch 1NC	1SEP408505R0001	
XR 1 Auxillary Switch 1NO	1SEP408506R0001	
XR 1 Auxillary Switch 1NC	1SEP408507R0001	
XR 2/3 Auxillary Switch 1NO	1SEP408508R0001	
XR 2/3 Auxillary Switch 1NC	1SEP408509R0001	
XR Single Auxillary Switch 1NO	1SEP407742R0013	
XR 63A - 160A 3P Shroud Size 0	1SEP408496R0001	
XR 250A 3P Shroud Size 1	1SEP408497R0001	
XR 400A/630A Shroud Size 2/3	1SEP408498R0001	

4

### XR-E Switch fuse 4-pole - 185mm busbar distance BS - British Standard



Type designation	Product Hierarchy 2300001	
	Order Code	Price
160A BS 185mm 4 Pole AC23B	1SEP102246R3400	
250A BS 185mm 4 Pole AC23B	1SEP102247R3400	
400A BS 185mm 4 Pole AC23B	1SEP102248R3400	
630A BS 185mm 4 Pole AC23B	1SEP102249R3400	

Accessories		
Description	Order Code	Price
63A - 160A Terminal Extension 3 pieces	1SEP408523R0001	
250A Terminal Extension 3 pieces	1SEP408525R0001	
4Pole Cable Shroud Size SR00-3	1SEP407775R0001	
SRM Busbar Support	NHP 343139P0001	



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# Cam switches

## Front mounted



4

Screw mounting also available.

All switches available without an escutcheon & with a round front ring only, call sales for details or visit cam web design platform <https://a.saleconfigurator.com>.

Description	Product Hierarchy 4000003	
	Order Code	Price
10A 1P 0-1 Mini Cam Switch	OMA1PB	
10A 2P 0-1 Mini Cam Switch	OMA2PB	
10A 3P 0-1 Mini Cam Switch	OMA3PB	
25A 2P 0-1 Mini Cam Switch	ONA2PB	
25A 3P 0-1 Mini Cam Switch	ONA3PB	
25A 1P On-Off switch, round front ring	ONA1XB	
25A 2P On-Off switch, round front ring	ONA2XB	
25A 3P On-Off switch, round front ring	ONA3XB	
10A 1P 0-1 Mini Key Op Cam Switch	OMA1KB	
10A 3P 0-1 Mini Key Op Cam Switch	OMA3KB	
25A 3P Key Op C/O Cam switch, 1-0-2	ONU3KB	
25A 1P C/O Cam sw/ rnd frnt rng, 1-2	ONWS1XB	
25A 2P C/O Cam sw/ rnd frnt rng, 1-2	ONWS2XB	
25A 3P C/O Cam sw/ rnd frnt rng, 1-2	ONWS3XB	
10A 1P 1-0-2 Mini Changeover Cam switch	OMU1PB	
10A 2P 1-0-2 Mini Changeover Cam switch	OMU2PB	
10A 3P 1-0-2 Mini Changeover Cam switch	OMU3PB	
25A 1P 1-0-2 Mini Changeover Cam switch	ONU1PB	
25A 2P 1-0-2 Mini Changeover Cam switch	ONU2PB	
25A 3P 1-0-2 Mini Changeover Cam switch	ONU3PB	
10A 1P 1-2 Mini Changeover Cam switch	OMWS1PB	
10A 3P 1-2 Mini Changeover Cam switch	OMWS3PB	
10A 2P 1-2 Mini Changeover Cam switch	ONWS2PB	
10A 3P 1-2 Mini Changeover Cam switch	ONWS3PB	
25A 1P Key Op C/O Cam switch, 1-0-2	ONU1KB	
10A 1P, 2 Step, Multistep Switch 0-1-2	OMSO21PB	
10A 1P, 3 Step, Multistep Switch 0-1-2-3	OMSO31PB	
10A 2P, 3 Step, Multistep Switch 0-1-2-3	OMSO32PB	
25A 1P, 2 Step, Multistep Switch 0-1-2	ONSO21PB	
25A 2P, 2 Step, Multistep Switch 0-1-2	ONSO22PB	
25A 3P, 2 Step, Multistep Switch 0-1-2	ONSO23PB	
25A 2P, 3 Step, Multistep Switch 0-1-2-3	ONSO32PB	
25A 3P, 3 Step, Multistep Switch 0-1-2-3	ONSO33PB	
25A 1P 4 Step Multistep Switch 1-2-3	ONSO41PB	
25A 2P 4 Step Multistep Switch 1-2-3	ONSO42PB	
25A 2P IP65 Enc 0-1 Cam Switch	ONA2EPB	
25A 3P IP65 Enc 0-1 Cam Switch	ONA3EPB	



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# Enclosures



## Enclosures

Overview ..... 5/2

## Sheet steel

Sheet steel IP65 ..... 5/4



## Insulated

Adaptable boxes ..... 5/6

Modular units ..... 5/8

Switchboards ..... 5/10

Gemini weather proof enclosures ..... 5/11



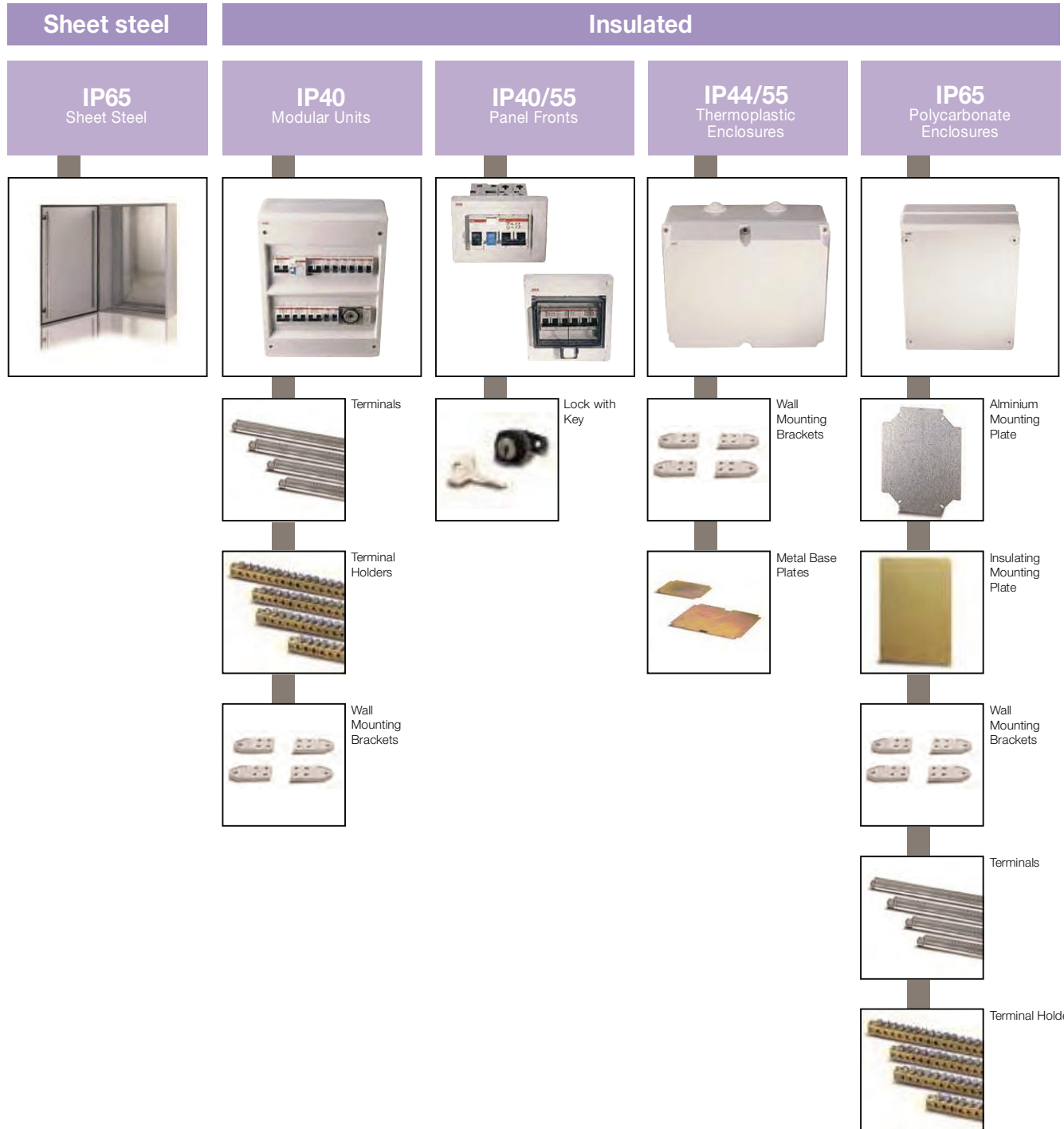
## Slotted trunking

Slotted trunking ..... 5/16



# Enclosures - IP40 - IP66

## Overview



5

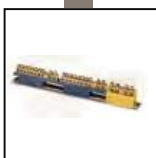


## Insulated

**IP55**  
Modular Unit

**IP55**  
Modular Unit  
Multiple Door

**IP66**  
Gemini Range



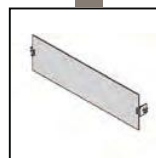
Neutral Terminals



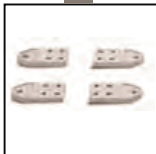
Terminals



Mounting Plates



Plain Rear Plates



Wall Mounting Brackets



Terminal Holders



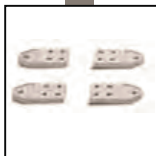
Full Height Inner Door



MCB Kits



Lock with Key



Wall Mounting Brackets



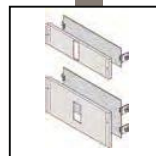
Enclosure Uprights



Plain Inner Door



Screw Lead Sealing Accessory



T-Max Mounting Kit



Lock with Key

# Enclosures

## IP65 sheet steel enclosure (For external use please consult us)

Colour: RAL7035 (orange Peel)



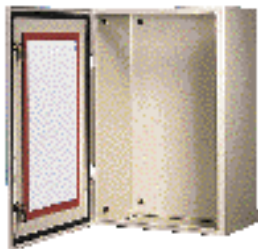
### Solid Door Enclosures IP65 - Nema 4, 12 & 13 Top & Bottom Gland Plates including Mounting Plate

Description H x W x D	Product Hierarchy 3200003	
	Order Code	Price
300 x 200 x 150	SRN3215K	41.81
300 x 300 x 150	SRN3315K	
300 x 400 x 150	SRN3415K	
400 x 300 x 150	SRN4315K	
400 x 300 x 200	SRN4320K	
400 x 200 x 200	SRN4420K	
400 x 600 x 200	SRN4620K	
500 x 300 x 200	SRN5320K	
500 x 400 x 200	SRN5420K	
500 x 400 x 250	SRN5425K	
600 x 400 x 200	SRN6420K	
600 x 400 x 250	SRN6425K	
600 x 500 x 200	SRN6520K	
600 x 640 x 300	SRN6630K	
800 x 600 x 250	SRN6625K	
600 x 600 x 250	SRN7520K	
700 x 500 x 200	SRN7525K	
700 x 500 x 250	SRN8625K	
800 x 600 x 300	SRN8630K	
800 x 800 x 300	SRN8830K	
1000 x 600 x 250	SRN10625K	
1000 x 600 x 300	SRN10630K	
1000 x 800 x 300	SRN10830K	
1200 x 600 x 300	SRN12630K	
1200 x 800 x 300	SRN12830K	
1200 x 800 x 400	SRN12840K	

5

### Glazed Door Enclosures IP65 - Nema 4, 12 & 13

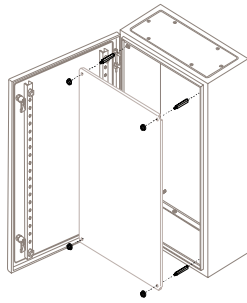
Top & Bottom Gland Plates included - Mounting Plate Sold Separately



500 x 400 x 200	SRN5420VK	
500 x 400 x 250	SRN5425VK	
600 x 400 x 200	SRN6420VK	
600 x 400 x 250	SRN6425VK	
800 x 600 x 250	SRN8625VK	
700 x 500 x 200	SRN7520VK	
700 x 500 x 250	SRN7525VK	
800 x 600 x 250	SRN8625VK	
800 x 600 x 300	SRN8630VK	
1000 x 600 x 250	SRN10625VK	
1000 x 600 x 300	SRN10630VK	
1000 x 800 x 300	SRN10830VK	
1200 x 600 x 300	SRN12630VK	
1200 x 800 x 300	SRN12830VK	

# Enclosures

## IP65 sheet steel enclosure



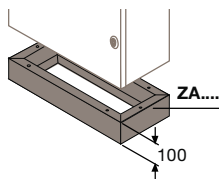
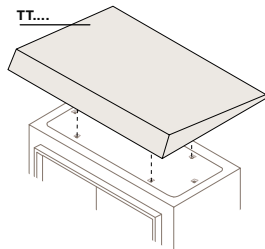
### Mounting Plates

		Product Hierarchy 3200003	
For enclosure	Hmm x Wmm	Order Code	Price
SRN5420 & SRN5425	500 x 400	PF5040	
SRN6420 & SRN6425	600 x 400	PF6040	
SRN7520 & SRN7525	700 x 500	PF7050	
SRN8625 & SRN8630	800 x 600	PF8060	
SRN10625 & SRN10630	1000 x 600	PF1060	
SRN10830	1000 x 800	PF1080	
SRN12630	1200 x 600	PF1260	
SRN12830	1200 x 800	PF1280	

### Rainhoods To improve protection against sprays of water.

Wmm x Dmm

200 x 150	TT2015	
300 x 150	TT3015	
400 x 150	TT4015	
300 x 200	TT3020	
400 x 200	TT4020	
500 x 200	TT5020	
600 x 200	TT6020	
400 x 250	TT4025	
500 x 250	TT5025	
600 x 250	TT6025K	
600 x 300	TT6030K	
600 x 300	TT8030K	



### Plinths 100mm height

Wmm x Dmm

400 x 200	ZA4020	
400 x 250	ZA4025	
600 x 250	ZA6025	
600 x 300	ZA6030	



### IP55 Combining Gasket

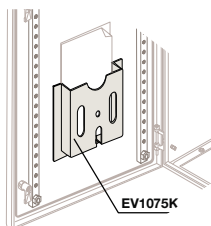
Hmm x Dmm

400 x 200	GZ4020	
400 x 250	GZ4025	
600 x 250	GZ6025	
600 x 300	GZ6030	

### Accessories

Description

Document pocket	AA5600	
N.4 wall mounting brackets	AA1206	
Double tongue 7mm lock with DIN 5mm plastic key	AA8001	
Lock with Yale insert & key	AA8002	
T handle with Yale insert and key	AA8003	
RAL7035 400ml spray can	VB7035	



# Enclosures - IP44 & 55 Thermoplastic Adaptable Boxes



## IP44 Box

		Product Hierarchy 3100007	
Size	Description	Order Code	Price
ø65 - H35	round with glands & press on lid	00800	
ø80 - H40	round with glands & press on lid	00802	
65 x 65 x 32	with glands & screw on lid	00808	
80 x 80 x 40	with glands & screw on lid	00810	
100 x 100 x 50	with glands & screw on lid	00816	
105 x 70 x 50	with glands & screw on lid	00820	
100 x 100 x 80	with glands & screw on lid	00821	
153 x 110 x 66	with glands & low screw on lid	00822	
160 x 135 x 77	with glands & low screw on lid	1SL0824A00	
220 x 170 x 80	with glands & low screw on lid	1SL0826A00	
310 x 240 x 110	with glands & low screw on lid	1SL0828A00	
160 x 135 x 150	with glands & high screw on lid	1SL0830A00	
220 x 170 x 150	with glands & high screw on lid	1SL0832A00	
310 x 240 x 160	with glands & high screw on lid	1SL0834A00	

5



## IP55 Box

		Product Hierarchy 3100007	
Size	Description	Order Code	Price
100 x 100 x 50	with smooth walls & low screw-on lid	00846	
105 x 70 x 50	with smooth walls & low screw-on lid	00850	
100 x 100 x 80	with smooth walls & low screw-on lid	00851	
153 x 110 x 66	with smooth walls & low screw-on lid	00852	
160 x 135 x 77	with smooth walls & low screw-on lid	1SL0854A00	
220 x 170 x 80	with smooth walls & low screw-on lid	1SL0856A00	
310 x 240 x 110	with smooth walls & low screw-on lid	1SL0858A00	
153 x 110 x 66	with smooth walls & transparent low screw-on lid	00872	
160 x 135 x 150	with smooth walls & transparent high screw-on lid	00880	
220 x 170 x 150	with smooth walls & transparent low screw-on lid	1SL0882A00	
310 x 240 x 160	with smooth walls & transparent high screw-on lid	1SL0884A00	
160 x 135 x 150	with smooth walls & high screw-on lid	1SL0860A00	
220 x 170 x 150	with smooth walls & high screw-on lid	1SL0862A00	
310 x 240 x 160	with smooth walls & high screw-on lid	1SL0864A00	
160 x 135 x 70	with smooth walls & transparent low screw-on lid	1SL0874A00	
220 x 170 x 80	with smooth walls & transparent low screw-on lid	1SL0876A00	
310 x 240 x 110	with smooth walls & transparent low screw-on lid	1SL0878A00	



# Enclosures - IP65 in Polycarbonate Adaptable Boxes



## IP65 Polycarbonate Enclosure

Size HxWxD	Product Hierarchy 3100007	
	Order Code	Price
220 x 140 x 140	12804	
220 x 205 x 140	12808	
220 x 275 x 140	12812	
370 x 275 x 140	12814	
570 x 275 x 140	12816	
570 x 380 x 140	12818	



## Aluminium Mounting Plate

For Enclosure Type	Product Hierarchy 3100007	
	Order Code	Price
12804	12842	
12808	12844	
12812	12845	
12814	12846	
12816	12847	
12818	12848	



## Wall Mounting Brackets

For Enclosure Type	Product Hierarchy 3100007	
	Order Code	Price
Fits All	12858	

# Enclosures - IP40, IP55, IP65

## Modular Units



### IP40 Polycarbonate

No. Modules	Size W x H x D	Product Hierarchy 3100007	
		Order Code	Price
2	100 x 160 x 85	12702	
4	140 x 220 x 110	12704	
8	205 x 220 x 110	12708	
12	275 x 220 x 110	12712	
24	275 x 370 x 110	12714	
36	275 x 570 x 110	12716	



### IP55 Thermoplastic

No. Modules	Size W x H x D	Product Hierarchy 3100007	
		Order Code	
4	125 x 180 x 105	12644	
6	160 x 180 x 105	12646	
10	230 x 180 x 105	12650	
20	230 x 320 x 135	12652	
10 - special	250 x 320 x 135	12654	



5



### IP65 Polycarbonate Solid Door

No. Modules	Size W x H x D	Product Hierarchy 3100007	
		Order Code	
8	205 x 220 x 140	12728	
12	275 x 220 x 140	12732	
24	380 x 220 x 140	12733	
36	275 x 370 x 140	12734	



### IP65 Polycarbonate Clear Door

No. Modules	Size W x H x D	Product Hierarchy 3100007	
		Order Code	
4	140 x 220 x 140	12744	
8	205 x 220 x 140	12748	
12	275 x 220 x 140	12752	
18	380 x 220 x 140	12753	
24	275 x 370 x 140	12754	
36	275 x 570 x 140	12756	



### IP65 Polycarbonate Multiple Doors

No. Modules	Size W x H x D	Product Hierarchy 3100007	
		Order Code	
2/4	100 x 160 x 100	12742	
8	205 x 220 x 140	12743	
12	275 x 220 x 140	12745	
24	275 x 370 x 140	12746	
36	275 x 570 x 140	12747	



# Enclosures - IP40, IP55, IP65

## Modular Units Accessories



### Recommended Terminals & Terminal Holders Quantities

For Switchboard type	Product Hierarchy 3100007			
	Terminal Holders		Terminals	
	Order Code	Price	Order Code	Price
12704	12538 (x2)	3.86	12531 (x2)	
12708	12539 (x2)	4.33	12531 (x2)	
12712	12540 (x1)	5.01	12531 (x2)	
			12532 (x1)	
12714	12540 (x2)	5.01	12533 (x2)	
12716	12540 (x2)	5.01	12534 (x2)	
12724 - 12744	12538 (x2)	3.86	12531 (x2)	
12728 - 12748	12539 (x2)	4.33	12531 (x2)	
12732 - 12752	12540 (x1)	5.01	12531 (x2)	
			12532 (x1)	
12733 - 12753	12543 (x1)	9.67	12531 (x1)	
			12535 (x1)	
12735 - 12755	12543 (x2)	9.67	12534 (x2)	
12736 - 12756	12540 (x2)	5.01	12534 (x2)	
12738 - 12758	12543 (x2)	9.67	12535 (x2)	
12743	12539 (x2)	4.33	12531 (x2)	
12745	12540 (x1)	5.01	12531 (x1)	
			12532 (x1)	
12746	12540 (x2)	5.01	12533 (x2)	
12747	12540 (x2)	5.01	12534 (x2)	

(x) Quantity Required

5



### Terminal Blocks

For Switchboard type	Neutral terminals	Earth terminals	Product Hierarchy 3100007	
			Order Code	Price
12 644 - 12 684	2x4.5 + 3x5.6	2x4.5 + 3x5.6	12880	
12 646 - 12 686	6x4.5 + 5x5.6	2x4.5 + 3x5.6	12882	
12 650 - 12 690	6x4.5 + 5x5.6	2x4.5 + 3x5.6	12884	
12 652 - 12 692 - 12 654	2 (6x4.5 + 5x5.6)	2 (2x4.5 + 3x5.6)	12886	



### Accessories

Description	Product Hierarchy 3100007	
	Order Code	Price
Wall Mounting Brackets for Box	12658	



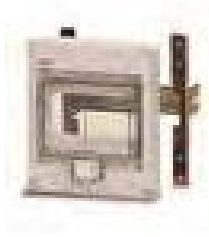
# Enclosures - Polycarbonate

## IP65 Switchboards - IP40 & IP55 Panel Fronts



### IP40 Front Panel

No. Modules	Size HxWxD	Product Hierarchy 3100007	
		Order Code	Price
2	9012362	12362	
3	9012362	12363	
4	9012362	12364	



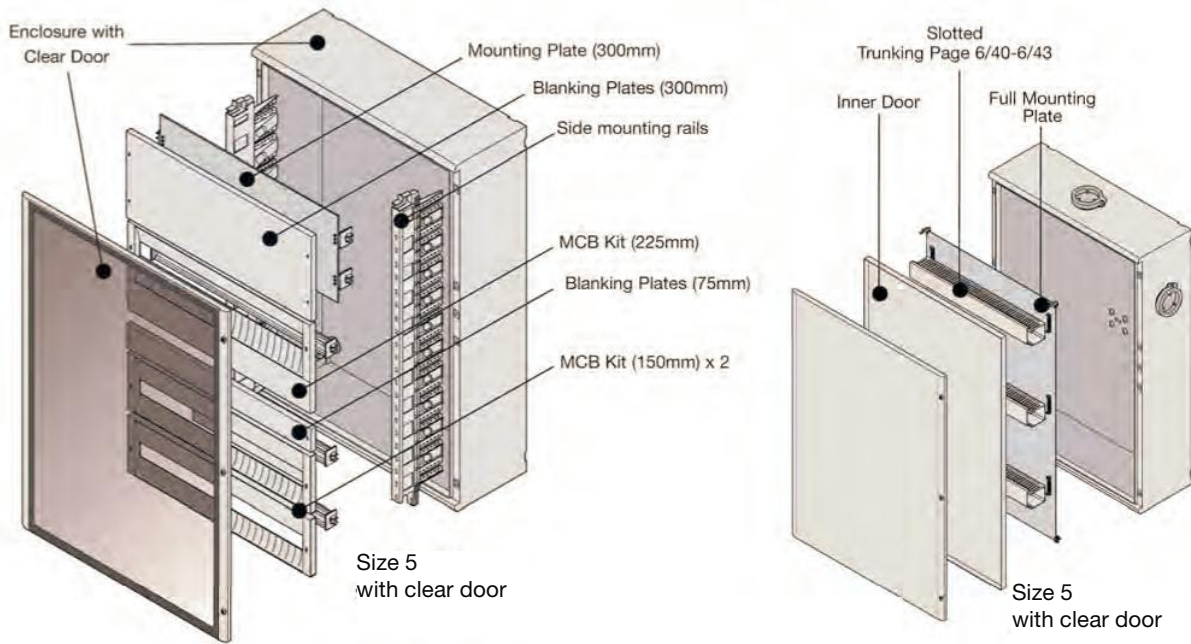
### IP55 Front Panel

No. Modules	Size HxWxD		
4	180 x 125 x 34	12658	
6	180 x 160 x 34	12659	
10	180 x 230 x 34	12660	



# Enclosures

## IP66 Gemini weather proof range



### Gemini Enclosures

Components are suitable for any type and size of enclosure



#### Enclosure with Plain Door

Size HxWxD	Usable Height	Size	Product Hierarchy 3100007	
			Order Code	Price
400 x 335 x 210	300	1	1SL0201A00	
550 x 460 x 260	450	2	1SL0202A00	
700 x 460 x 260	600	3	1SL0203A00	
700 x 590 x 260	600	4	1SL0204A00	
855 x 590 x 360	750	5	1SL0205A00	
1005 x 840 x 360	900	6	1SL0206A00	

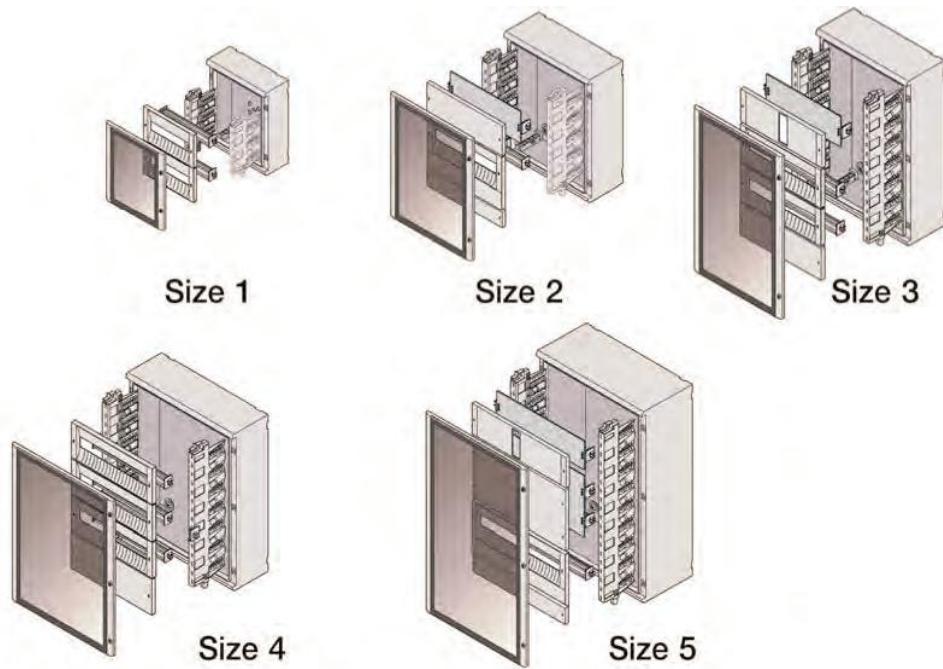


#### Enclosure with Plain Door

Size HxWxD	Usable Height	Size	Product Hierarchy 3100007	
			Order Code	Price
400 x 335 x 210	300	1	1SL0211A00	
550 x 460 x 260	450	2	1SL0212A00	
700 x 460 x 260	600	3	1SL0213A00	
700 x 590 x 260	600	4	1SL0214A00	
855 x 590 x 360	750	5	1SL0215A00	
1005 x 840 x 360	900	6	1SL0216A00	

# Enclosures

## IP66 Gemini weather proof range



5



### Full Mounting Plates

Size HxW	Size	Product Hierarchy 310007	
		Order Code	Price
285 x 235	1	1SL0259A00	
435 x 360	2	1SL0260A00	
585 x 360	3	1SL0261A00	
585 x 485	4	1SL0262A00	
735 x 485	5	1SL0263A00	
885 x 735	6	1SL0264A00	

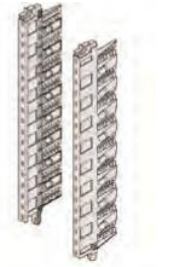
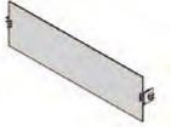
#### Also available:

- Perforated Mounting Plates suitable for use with floating nuts.
- Insulated Mounting Plates.

Please consult us for availability

# Enclosures

## IP66 Gemini weather proof range



### Mounting Plates

Mounting Plates			Product Hierarchy 3100007	
Size HxW	Nominal Size	Size	Order Code	Price
130 x 210	150	1	1SL0296A00	
130 x 318	150	2	1SL0297A00	
130 x 318	150	3	1SL0297A00	
130 x 443	150	4	1SL0298A00	
130 x 443	150	5	1SL0298A00	
130 x 663	150	6	1SL0299A00	
280 x 318	300	2	1SL0302A00	
280 x 318	300	3	1SL0302A00	
280 x 443	300	4	1SL0303A00	
280 x 443	300	5	1SL0303A00	
280 x 663	300	6	1SL0304A00	

### Side Mounting Rails

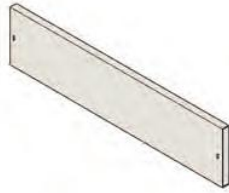
Side Mounting Rails			Product Hierarchy 3100007	
Size H		Size	Order Code	Price
300		1	1SL0283A00	
450		2	1SL0284A00	
600		3	1SL0285A00	
600		4	1SL0285A00	
750		5	1SL0286A00	
900		6	1SL0287A00	

### MCB Kits

MCB Kits			Product Hierarchy 3100007	
Size HxW	Modules	Size	Order Code	Price
150 x 250	12	1	1SL0307A00	
150 x 375	18	2	1SL0308A00	
150 x 375	18	3	1SL0308A00	
150 x 500	24	4	1SL0309A00	
150 x 500	24	5	1SL0309A00	
150 x 750	36	6	1SL0310A00	
225 x 375	2	18	1SL0313A00	
225 x 375	3	18	1SL0313A00	
225 x 500	4	24	1SL0314A00	
225 x 500	5	24	1SL0314A00	
225 x 750	6	36	1SL0315A00	

# Enclosures

## IP66 Gemini weather proof range



### Blanking Plates

Blanking Plates		Product Hierarchy 3100007	
Size HxW	Size	Order Code	Price
150 x 250	1	1SL0324A00	
150 x 375	2	1SL0325A00	
150 x 375	3	1SL0325A00	
150 x 500	4	1SL0326A00	
150 x 500	5	1SL0327A00	
150 x 750	6	1SL0327A00	















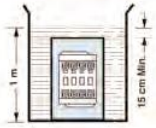

### Accessories

Accessories		Product Hierarchy 3100007	
Description	Size	Order Code	
Key lock and handle	Fits All	1SL0340A00	
Square lock	Fits All	1SL0339A00	
Wall mounting brackets (4off)	Fits All	1SL0342A00	

5

# Enclosures

## IP Ratings

IP			
		Protection against solid objects	Protection against liquids
<b>0</b>	No protection		<b>0</b> No protection
<b>1</b>	Protected against solid objects up to 50mm eg. accidental touch by hands		<b>1</b> Protected against vertically falling drops of water eg. condensation 
<b>2</b>	Protected against solid objects up to 12mm eg. fingers		<b>2</b> Protected against direct sprays of water up to 15° from vertical 
<b>3</b>	Protected against solid objects over 2.5mm (tools + wires)		<b>3</b> Protected against direct sprays of water up to 60° from vertical 
<b>4</b>	Protected against solid objects up to 1mm (tools wires + small wires)		<b>4</b> Protected against sprays of water from all directions 
<b>5</b>	Protected against dust (no harmful deposit)		<b>5</b> Protected against low pressure jets of water from all directions 
<b>6</b>	Totally protected against dust		<b>6</b> Protected against strong jets of water eg. for use on ship decks 
			<b>7</b> Protected against the effects of immersion between 15cm and 1m. 
			<b>8</b> Protected against long periods of immersion under pressure 

# Enclosures

## Slotted trunking



5

Size WxH	Pack Quantity	Product Hierarchy 3300001		Product Hierarchy 3300001	
		4/6mm Slots Order Code	Price	8/12mm Slots Order Code	Price
15 x 17	23	05119		05019	
25 x 30	29	05133		05033	
40 x 30	20	05135		05035	
60 x 30	26	05137		05037	
25 x 40	24	05143		05043	
40 x 40	15	05145		05045	
60 x 40	20	05147		05047	
80 x 40	16	05149		05049	
100 x 40	12	05151		05051	
120 x 40	10	05153		05053	
25 x 60	17	05163		05063	
40 x 60	11	05165		05065	
60 x 60	16	05167		05067	
80 x 60	12	05169		05069	
100 x 60	10	05171		05071	
120 x 60	7	05173		05073	
25 x 80	14	05183		05083	
40 x 80	18	05185		05085	
60 x 80	12	05187		05087	
80 x 80	8	05189		05089	
100 x 80	8	05191		05091	
120 x 80	6	05193		05093	
25 x 100	10	05194		05094	
40 x 100	12	05195		05095	
60 x 100	10	05196		05096	
80 x 100	8	05197		05097	
100 x 100	4	05198		05098	
150 x 100	4	05199		05099	

Prices are for 2 metre lengths, and sold in pack quantities

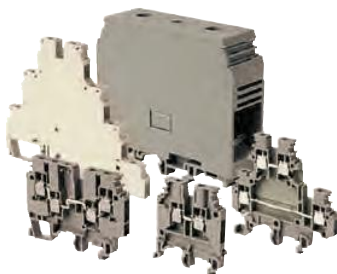


# Terminals



## SNK terminals

Feed through terminal blocks .....	6/2
Double deck terminals.....	6/7
Disconnect terminals .....	6/8
Fuse terminals .....	6/11
Accessories.....	6/13



## Feed through terminals

Feed through terminal blocks .....	6/14
Mini feed through & fuse terminal blocks .....	6/23
Double deck terminals.....	6/25
Triple deck terminals .....	6/32
Disconnect terminals .....	6/33
Power terminals.....	6/37
Security terminals.....	6/39
Fuse terminals.....	6/40
Distribution blocks.....	6/43
General accessories .....	6/44



## Spring clamp terminals

Spring clamp terminal blocks .....	6/45
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## ADO terminals

ADO terminals .....	6/53
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### 5000 series



Full range of product and technical information place this part number in a search engine and download

1SNC160001C0207

### SNK series



Full range of product and technical information place this part number in a search engine and download

1SNC161001C0201

# Terminal blocks

## SNK terminal blocks (Price per 100)

6



### 4.0mm<sup>2</sup> Feed Through Terminal Blocks

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS4	4mm <sup>2</sup> feed through terminal (Grey) [pack size = 50]	1SNK505010R0000	
ZS4-BL	4mm <sup>2</sup> feed through terminal (Blue) [pack size = 50]	1SNK505020R0000	
ZS4-PE	4mm <sup>2</sup> feed through terminal, Earth (Green / Yellow) [pack size = 20]	1SNK505150R0000	
ZS4-OR	4mm <sup>2</sup> feed through terminal (Orange) [pack size = 50]	1SNK505030R0000	
ZS4-YL	4mm <sup>2</sup> feed through terminal (Yellow) [pack size = 50]	1SNK505060R0000	
ZS4-GN	4mm <sup>2</sup> feed through terminal (Green) [pack size = 50]	1SNK505061R0000	
ZS4-RD	4mm <sup>2</sup> feed through terminal (Red) [pack size = 50]	1SNK505062R0000	
ZS4-PR	4mm <sup>2</sup> feed through terminal (Purple) [pack size = 50]	1SNK505063R0000	
ZS4-BR	4mm <sup>2</sup> feed through terminal (Brown) [pack size = 50]	1SNK505064R0000	
ZS4-WH	4mm <sup>2</sup> feed through terminal (White) [pack size = 50]	1SNK505065R0000	
ZS4-BK	4mm <sup>2</sup> feed through terminal (Black) [pack size = 50]	1SNK505066R0000	

### Accessories

ES4	End Section 4 - 16mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK505910R0000	
CS	Circuit Separator, fits into top of terminal (dark grey) [pack size = 20]	1SNK900101R0000	
CS-R1	Circuit Separator 4 - 35mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK900103R0000	
TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
SHBS	Shield connector [pack size = 20]	1SNK900600R0000	
PL5	Transparent cover (clear) [pack size = 10]	1SNK900618R0000	
JB5-2	Jumper Bar 2 Pole, 5mm Pitch [pack size = 50]	1SNK905302R0000	
JB5-3	Jumper Bar 3 Pole, 5mm Pitch [pack size = 50]	1SNK905303R0000	
JB5-4	Jumper Bar 4 Pole, 5mm Pitch [pack size = 50]	1SNK905304R0000	
JB5-5	Jumper Bar 5 Pole, 5mm Pitch [pack size = 50]	1SNK905305R0000	
JB5-10	Jumper Bar 10 Pole, 5mm Pitch [pack size = 30]	1SNK905310R0000	
JB5-50	Jumper Bar 50 Pole, 5mm Pitch [pack size = 10]	1SNK905350R0000	
JB85-3	Jumper Bar 3 Pole, links 1 x 8mm pitch block with 2 x 5mm pitch blocks [pack size = 10]	1SNK900603R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 6.0mm<sup>2</sup> Feed Through Terminal Blocks

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS6	6mm <sup>2</sup> feed through terminal (Grey) [pack size = 50]	1SNK506010R0000	
ZS6-BL	6mm <sup>2</sup> feed through terminal (Blue) [pack size = 50]	1SNK506020R0000	
ZS6-PE	6mm <sup>2</sup> feed through terminal, Ground (Green / Yellow) [pack size = 20]	1SNK506150R0000	
ZS6-OR	6mm <sup>2</sup> feed through terminal (Orange) [pack size = 50]	1SNK506030R0000	
ZS6-YL	6mm <sup>2</sup> feed through terminal (Yellow) [pack size = 50]	1SNK506060R0000	
ZS6-GN	6mm <sup>2</sup> feed through terminal (Green) [pack size = 50]	1SNK506061R0000	
ZS6-RD	6mm <sup>2</sup> feed through terminal (Red) [pack size = 50]	1SNK506062R0000	
ZS6-PR	6mm <sup>2</sup> feed through terminal (Purple) [pack size = 50]	1SNK506063R0000	
ZS6-BR	6mm <sup>2</sup> feed through terminal (Brown) [pack size = 50]	1SNK506064R0000	
ZS6-WH	6mm <sup>2</sup> feed through terminal (White) [pack size = 50]	1SNK506065R0000	
ZS6-BK	6mm <sup>2</sup> feed through terminal (Black) [pack size = 50]	1SNK506066R0000	

### Accessories

ES4	End Section 4 - 16mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK505910R0000	
CS	Circuit Separator, fits into top of terminal (dark grey) [pack size = 20]	1SNK900101R0000	
CS-R1	Circuit Separator 4 - 35mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK900103R0000	
TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
SHBS	Shield connector [pack size = 20]	1SNK900600R0000	
PL6	Transparent cover (Clear) [pack size = 10]	1SNK900619R0000	
JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 20]	1SNK906310R0000	
JB6-50	Jumper bar, 50 pole, 6mm pitch (Orange) [pack size = 10]	1SNK906350R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 10mm² Feed Through Terminal Blocks

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS10	10mm² feed through terminal (Grey) [pack size = 50]	1SNK508010R0000	
ZS10-BL	10mm² feed through terminal (Blue) [pack size = 50]	1SNK508020R0000	
ZS10-PE	10mm² feed through terminal, Earth, (Green / Yellow) [pack size = 20]	1SNK508150R0000	
ZS10-OR	10mm² feed through terminal (Orange) [pack size = 50]	1SNK508030R0000	
ZS10-YL	10mm² feed through terminal (Yellow) [pack size = 50]	1SNK508060R0000	
ZS10-GN	10mm² feed through terminal (Green) [pack size = 50]	1SNK508061R0000	
ZS10-RD	10mm² feed through terminal (Red) [pack size = 50]	1SNK508062R0000	
ZS10-PR	10mm² feed through terminal (Purple) [pack size = 50]	1SNK508063R0000	
ZS10-BR	10mm² feed through terminal (Brown) [pack size = 50]	1SNK508064R0000	
ZS10-WH	10mm² feed through terminal (White) [pack size = 50]	1SNK508065R0000	
ZS10-BK	10mm² feed through terminal (Black) [pack size = 50]	1SNK508066R0000	

### Accessories

ES4	End Section 4 - 16mm² (dark grey) [pack size = 20]	1SNK505910R0000	
CS	Circuit Separator, fits into top of terminal (dark grey) [pack size = 20]	1SNK900101R0000	
CS-R1	Circuit Separator 4 - 35mm² (dark grey) [pack size = 20]	1SNK900103R0000	
TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC8	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900104R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
SHBS	Shield connector [pack size = 20]	1SNK900600R0000	
PL8	Transparent cover (Clear) [pack size = 10]	1SNK900620R0000	
JB8-2	Jumper bar, 2 pole, 8mm pitch (Orange) [pack size = 50]	1SNK908302R0000	
JB8-3	Jumper bar, 3 pole, 8mm pitch (Orange) [pack size = 50]	1SNK908303R0000	
JB8-4	Jumper bar, 4 pole, 8mm pitch (Orange) [pack size = 50]	1SNK908304R0000	
JB8-5	Jumper bar, 5 pole, 8mm pitch (Orange) [pack size = 40]	1SNK908305R0000	
JB8-10	Jumper bar, 10 pole, 8mm pitch (Orange) [pack size = 20]	1SNK908310R0000	



6



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# Terminal blocks

## SNK terminal blocks (Price per 100)



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### 16mm<sup>2</sup> Feed Through Terminal Blocks

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS16	16mm <sup>2</sup> feed through terminal (Grey) [pack size = 50]	1SNK510010R0000	
ZS16-BL	16mm <sup>2</sup> feed through terminal (Blue) [pack size = 50]	1SNK510020R0000	
ZS16-PE	16mm <sup>2</sup> feed through terminal, Earth, (Green / Yellow) [pack size = 20]	1SNK510150R0000	
ZS16-OR	16mm <sup>2</sup> feed through terminal (Orange) [pack size = 50]	1SNK510030R0000	

#### Accessories

ES4	End Section 4 - 16mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK505910R0000	
CS	Circuit Separator, fits into top of terminal (dark grey) [pack size = 20]	1SNK900101R0000	
CS-R1	Circuit Separator 4 - 35mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK900103R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
PL10	Transparent cover (Clear) [pack size = 10]	1SNK900621R0000	
JB10-2	Jumper bar, 2 pole, 10mm pitch (Orange) [pack size = 50]	1SNK910302R0000	
JB10-3	Jumper bar, 3 pole, 10mm pitch (Orange) [pack size = 50]	1SNK910303R0000	
JB10-4	Jumper bar, 4 pole, 10mm pitch (Orange) [pack size = 40]	1SNK910304R0000	
JB10-5	Jumper bar, 5 pole, 10mm pitch (Orange) [pack size = 30]	1SNK910305R0000	
JB10-10	Jumper bar, 10 pole, 10mm pitch (Orange) [pack size = 20]	1SNK910310R0000	

6

### 35mm<sup>2</sup> Feed Through Terminal Blocks

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS35	35mm <sup>2</sup> feed through terminal (Grey) [pack size = 20]	1SNK516010R0000	
ZS35-BL	35mm <sup>2</sup> feed through terminal (Blue) [pack size = 20]	1SNK516020R0000	
ZS35-PE	35mm <sup>2</sup> feed through terminal, Ground (Green / Yellow) [pack size = 20]	1SNK516150R0000	
ZS35-OR	35mm <sup>2</sup> feed through terminal (Orange) [pack size = 20]	1SNK516030R0000	

#### Accessories

PL16	Transparent cover (Clear) [pack size = 10]	1SNK900622R0000	
JB16-2	Jumper bar, 2 pole, 16mm pitch [pack size = 10]	1SNK916302R0000	
JB16-3	Jumper bar, 3 pole, 16mm pitch [pack size = 10]	1SNK916303R0000	
JB16-4	Jumper bar, 4 pole, 16mm pitch [pack size = 10]	1SNK916304R0000	
JB16-5	Jumper bar, 5 pole, 16mm pitch [pack size = 10]	1SNK916305R0000	
JB16-10	Jumper bar, 10 pole, 16mm pitch [pack size = 10]	1SNK916310R0000	

# Terminal blocks

## SNK terminal blocks (Price per 100)



### 70mm² Feed Through Terminal Blocks

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS70	70mm² feed through terminal block (Grey) [pack size = 10]	1SNK522010R0000	
ZS70-BL	70mm² feed through terminal block (Blue) [pack size = 10]	1SNK522020R0000	
ZS70-PE	70mm² feed through terminal block, Ground (Green / Yellow) [pack size = 10]	1SNK522150R0000	

### Accessories

JB22-2	Jumper bar, 2 pole, 22mm pitch [pack size = 5]	1SNK922302R0000	
JB22-3	Jumper bar, 3 pole, 22mm pitch [pack size = 5]	1SNK922303R0000	
JB22-5	Jumper bar, 5 pole, 22mm pitch [pack size = 5]	1SNK922305R0000	
JB22-10	Jumper bar, 10 pole, 22mm pitch [pack size = 5]	1SNK922310R0000	



### 95mm² Feed Through Terminal Blocks

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS95	95mm² feed through terminal (Grey) [pack size = 10]	1SNK526010R0000	
ZS95-BL	95mm² feed through terminal (Blue) [pack size = 10]	1SNK526020R0000	
ZS95-PE	95mm² feed through terminal, Ground (Green / Yellow) [pack size = 10]	1SNK526150R0000	

### Accessories

JB26-2	Jumper bar, 2 pole, 26mm pitch [pack size = 5]	1SNK926302R0000	
JB26-3	Jumper bar, 3 pole, 26mm pitch [pack size = 5]	1SNK926303R0000	
JB26-5	Jumper bar, 5 pole, 26mm pitch [pack size = 5]	1SNK926305R0000	
JB26-10	Jumper bar, 10 pole, 26mm pitch [pack size = 5]	1SNK926310R0000	



6

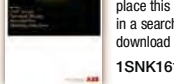


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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 4.0mm<sup>2</sup> Double Deck Terminal Blocks

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS4-D2	4mm <sup>2</sup> double deck terminal, 2 circuits (Grey) [pack size = 50]	1SNK505210R0000	
ZS4-D1	4mm <sup>2</sup> double deck terminal, 1 circuit (Grey) [pack size = 50]	1SNK505211R0000	
ZS4-D2-BL	4mm <sup>2</sup> double deck terminal, 2 circuits (Blue) [pack size = 50]	1SNK505220R0000	
ZS4-D2-OR	4mm <sup>2</sup> double deck terminal, 2 circuits (Orange) [pack size = 50]	1SNK505230R0000	

### Accessories

ES4-D2	End Section for double deck terminals [pack size = 20]	1SNK505960R0000	
TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
SHB	Shield connector [pack size = 20]	1SNK900602R0000	
JB5-2	Jumper Bar 2 Pole, 5mm Pitch [pack size = 50]	1SNK905302R0000	
JB5-3	Jumper Bar 3 Pole, 5mm Pitch [pack size = 50]	1SNK905303R0000	
JB5-4	Jumper Bar 4 Pole, 5mm Pitch [pack size = 50]	1SNK905304R0000	
JB5-5	Jumper Bar 5 Pole, 5mm Pitch [pack size = 50]	1SNK905305R0000	
JB5-10	Jumper Bar 10 Pole, 5mm Pitch [pack size = 30]	1SNK905310R0000	

### 6.0mm<sup>2</sup> Double Deck Terminal Blocks

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS6-D2	6mm <sup>2</sup> double deck terminal, 2 circuits (Grey) [pack size = 50]	1SNK506210R0000	
ZS6-D1	6mm <sup>2</sup> double deck terminal, 1 circuit (Grey) [pack size = 50]	1SNK506211R0000	
ZS6-D2-BL	6mm <sup>2</sup> double deck terminal, 2 circuits (Blue) [pack size = 50]	1SNK506220R0000	
ZS6-D2-OR	6mm <sup>2</sup> double deck terminal, 2 circuits (Orange) [pack size = 50]	1SNK506230R0000	

### Accessories

ES4-D2	End Section for double deck terminals [pack size = 20]	1SNK505960R0000	
TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
SHB	Shield connector [pack size = 20]	1SNK900602R0000	
JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 20]	1SNK906310R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 4.0mm<sup>2</sup> Disconnect (Blade) Terminal Block (Same profile as ZS4)

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS4-S	4mm <sup>2</sup> disconnect terminal (Grey) [pack size = 50]	1SNK505310R0000	
ZS4-S-BL	4mm <sup>2</sup> disconnect terminal (Blue) [pack size = 50]	1SNK505320R0000	
ZS4-S-OR	4mm <sup>2</sup> disconnect terminal (Orange) [pack size = 50]	1SNK505330R0000	
ZS4-S-T2	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (Grey) [pack size = 50]	1SNK505311R0000	
ZS4-S-T2-BL	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (Blue) [pack size = 50]	1SNK505321R0000	
ZS4-S-T2-OR	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (Orange) [pack size = 50]	1SNK505331R0000	
ZS4-S-T2.3	4mm <sup>2</sup> disconnect terminal with 2.3mm test sockets (Grey) [pack size = 50]	1SNK505312R0000	

### Accessories

ES4	End Section 4 - 16mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK505910R0000	
CS-R1	Circuit Separator 4 - 35mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK900103R0000	
SHBS	Shield connector [pack size = 20]	1SNK900600R0000	
PL5	Transparent cover (clear) [pack size = 10]	1SNK900618R0000	

6



### 4.0mm<sup>2</sup> Disconnect (Blade) Terminal Block

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS4-S-R1	4mm <sup>2</sup> disconnect terminal (Grey) [pack size = 50]	1SNK506310R0000	
ZS4-S-R1-BL	4mm <sup>2</sup> disconnect terminal (Blue) [pack size = 50]	1SNK506320R0000	
ZS4-S-R1-OR	4mm <sup>2</sup> disconnect terminal (Orange) [pack size = 50]	1SNK506330R0000	

### Accessories

TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906310R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 4.0mm<sup>2</sup> Disconnect (Blade) Terminal Block

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS4-S-T2-R1	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (Grey) [pack size = 50]	1SNK506311R0000	
ZS4-S-T2-R1-BL	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (Blue) [pack size = 50]	1SNK506321R0000	
ZS4-S-T2-R1-OR	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (Orange) [pack size = 50]	1SNK506331R0000	
ZS4-S-T2.3-R1	4mm <sup>2</sup> disconnect terminal with 2.3mm test sockets (Grey) [pack size = 50]	1SNK506312R0000	

#### Accessories

TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 20]	1SNK906310R0000	

### 4.0mm<sup>2</sup> Disconnect (Blade) Terminal Block

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS4-SP	4mm <sup>2</sup> disconnect terminal (plug sold separately) (Grey) [pack size = 50]	1SNK505313R0000	
ZS4-SP-T2	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (plug sold separately) (Grey) [pack size = 50]	1SNK505314R0000	

#### Accessories

ES4	End Section 4 - 16mm <sup>2</sup> (dark grey) [pack size = 20]	1SNK505910R0000	
PG5	Component plug (Grey) [pack size = 20]	1SNK900401R0000	
PG5-R1	Plug with integral linking bar (Orange) [pack size = 25]	1SNK900402R0000	
SHBS	Shield connector [pack size = 20]	1SNK900600R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 4.0mm<sup>2</sup> Disconnect (Pluggable) Terminal Block (Same profile as ZS4)

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS4-SP-R1	4mm <sup>2</sup> disconnect terminal (plug sold separately) (Grey) [pack size = 50]	1SNK506313R0000	
ZS4-SP-T2-R1	4mm <sup>2</sup> disconnect terminal with 2mm test sockets (plug sold separately) (Grey) [pack size = 50]	1SNK506314R0000	

### Accessories

PG5	Component plug (Grey) [pack size = 20]	1SNK900401R0000	
PG5-R1	Plug with integral linking bar (Orange) [pack size = 25]	1SNK900402R0000	
TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 20]	1SNK906310R0000	

6



### 4.0mm<sup>2</sup> Disconnect (Pluggable) Terminal Block (Same profile as ZS4)

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS4-S-R2	4mm <sup>2</sup> disconnect terminal (Grey / Orange) [pack size = 50]	1SNK506414R0000	

### Accessories

TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	
JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 20]	1SNK906310R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 4.0mm² Disconnect (Lever) Terminal Block (Same profile as ZS4-SF1)

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS4-S-R3	4mm² disconnect terminal with integral linking bar (Grey / Orange) [pack size = 50]	1SNK508416R0000	

#### Accessories

ES4-SF	End Section (Dark Grey) [pack size = 20]	1SNK508960R0000	
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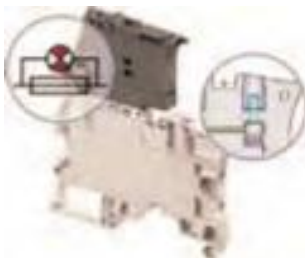
### 4.0mm² 5x20mm Fuse Terminal

#### Product Hierarchy 300010

Type	Description	Order Code	Price
ZS4-SF	4mm² 5x20mm Fuse Terminal (Grey / Dark Grey) [pack size = 50]	1SNK506410R0000	
ZS4-SF-R1	4mm² 5x20mm Fuse Terminal with 24-60V LED blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK506412R0000	
ZS4-SF-R3	4mm² 5x20mm Fuse Terminal with 115-250V LED blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK506415R0000	

#### Accessories

TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test Connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
TP2	Adaptor for 2mm test plugs (Dark Grey) [pack size = 20]	1SNK900203R0000	
TP4	Adaptor for 4mm test plugs (Dark Grey) [pack size = 20]	1SNK900205R0000	



JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 20]	1SNK906310R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



### 4.0mm<sup>2</sup> 5x20mm Fuse Terminal

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS4-SF-T2	4mm <sup>2</sup> 5x20mm Fuse Terminal with 2mm test sockets (Grey / Dark Grey) [pack size = 50]	1SNK506411R0000	
ZS4-SF-R2	4mm <sup>2</sup> 5x20mm Fuse Terminal with 2mm test sockets, 24-60V LED blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK506413R0000	
ZS4-SF-R4	4mm <sup>2</sup> 5x20mm Fuse Terminal with 2mm test sockets, 115-250V LED blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK506416R0000	

### Accessories

TC5	Test connector (Dark Grey) [pack size = 10]	1SNK900200R0000	
TC5-R1	Test connector, end module (Dark Grey) [pack size = 10]	1SNK900201R0000	
ES-TC6	Spacer for test connector (Dark Grey) [pack size = 10]	1SNK900105R0000	
JB6-2	Jumper bar, 2 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906302R0000	
JB6-3	Jumper bar, 3 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906303R0000	
JB6-4	Jumper bar, 4 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906304R0000	
JB6-5	Jumper bar, 5 pole, 6mm pitch (Orange) [pack size = 50]	1SNK906305R0000	
JB6-10	Jumper bar, 10 pole, 6mm pitch (Orange) [pack size = 20]	1SNK906310R0000	

6



### 4.0mm<sup>2</sup> 5x20mm Fuse Terminal

		Product Hierarchy 300010	
Type	Description	Order Code	Price
ZS4-SF1	4mm <sup>2</sup> 5x20mm / 5x25mm Fuse Terminal (Grey / Dark Grey) [pack size = 50]	1SNK508410R0000	
ZS4-SF1-R1	4mm <sup>2</sup> 5x20mm / 5x25mm Fuse Terminal, 24-60V blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK508412R0000	
ZS4-SF1-R3	4mm <sup>2</sup> 5x20mm / 5x25mm Fuse Terminal, 115-250V blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK508414R0000	
ZS4-SF1-T2	4mm <sup>2</sup> 5x20mm / 5x25mm Fuse Terminal with 2mm test sockets (Grey / Dark Grey) [pack size = 50]	1SNK508411R0000	
ZS4-SF1-R2	4mm <sup>2</sup> 5x20mm / 5x25mm Fuse Terminal with 2mm test sockets, 24-60V blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK508413R0000	
ZS4-SF1-R4	4mm <sup>2</sup> 5x20mm / 5x25mm Fuse Terminal with 2mm test sockets, 115-250V blown fuse indicator (Grey / Dark Grey) [pack size = 50]	1SNK508415R0000	
ZS4-R1	4mm <sup>2</sup> feed through terminal, (same profile as ZS4-SF1) (Grey) [pack size = 50]	1SNK508013R0000	

### Accessories

ES4-SF	End Section (Dark Grey) [pack size = 20]	1SNK508960R0000	
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# Terminal blocks

## SNK terminal blocks (Price per 100)



### General Accessories (End Stops and Protective Covers)

		Product Hierarchy 300010	
Type	Description	Order Code	Price
BAM3	TS35 rail screw down end stop (Dark Grey) [pack size = 50]	1SNK900001R0000	
BAZH1	TS35 rail screw down tall end stop (Dark Grey) [pack size = 20]	1SNK900102R0000	
KCO	Protective cover mounting kit (2 x BAZH1 + seals) (Dark Grey) [pack size = 1]	1SNK900624R0000	
CO	77mm x 30mm x 1m protective cover	1SNK900604R0000	

### General Accessories (End Stops and Protective Covers)

LH	10mm label holder (fits into end stops) (Dark Grey) [pack size = 50]	1SNK900605R0000	
MCLH	Card of 36 labels 30x8.8mm for LH label holder (White) [pack size = 25]	1SNK900630R0000	
MCLH-YL	Card of 36 labels 30x8.8mm for LH label holder (Yellow) [pack size = 25]	1SNK900633R0000	
LH-R1	10mm label holder (fits into end stops) (Dark Grey) [pack size = 50]	1SNK900607R0000	
MCLH-R1	Card of 15 labels 35.35x17.65mm for LH-R1 label holder (White) [pack size = 25]	1SNK900631R0000	
MCLH-R1-YL	Card of 15 labels 35.35x17.65mm for LH-R1 label holder (Yellow) [pack size = 25]	1SNK900634R0000	
SAT	210 x 148mm self adhesive label sheet (white) [pack size = 5]	1SNK900623R0000	
SAT5	Sheet of 240 9 x 5.2mm self adhesive markers (White) [pack size = 5]	1SNK900614R0000	
SAT6	Sheet of 240 9 x 5.8mm self adhesive markers (White) [pack size = 5]	1SNK900615R0000	
SAT8	Sheet of 160 9 x 7.8mm self adhesive markers (White) [pack size = 5]	1SNK900616R0000	

MC512	MC512 marker card - contains 45 blank 5mm x 12mm tags (white) [pack size = 22]	1SNK140000R0000	
MC512PA	MC512PA marker card - contains 100 blank 5 x 12mm tags (white) [pack size = 20]	1SNK149999R0000	
MC512PA	MC512PA marker card - horizontal 10 x [0->9]	1SNK140091R0000	
MC512PA	MC512PA marker card - horizontal 10 x [1->10]	1SNK140011R0000	
MC512PA	MC512PA marker card - horizontal 10 x [11->20]	1SNK140021R0000	
MC512PA	MC512PA marker card - horizontal 10 x [21->30]	1SNK140031R0000	
MC512PA	MC512PA marker card - horizontal 10 x [31->40]	1SNK140041R0000	
MC512PA	MC512PA marker card - horizontal 10 x [41->50]	1SNK140051R0000	
MC512PA	MC512PA marker card - horizontal 10 x [51->60]	1SNK140061R0000	
MC512PA	MC512PA marker card - horizontal 10 x [61->70]	1SNK140071R0000	
MC512PA	MC512PA marker card - horizontal 10 x [71->80]	1SNK140081R0000	
MC512PA	MC512PA marker card - horizontal 10 x [81->90]	1SNK140083R0000	
MC512PA	MC512PA marker card - horizontal 10 x [91->100]	1SNK140101R0000	
MC512PA	MC512PA marker card - horizontal [1->100]	1SNK145011R0000	
MC512PA	MC512PA marker card - horizontal 100 x	1SNK148041R0000	
MC512PA	MC512PA marker card - horizontal 20 x [L1 L2 L3 N PE]	1SNK149001R0000	



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# Terminal blocks

## SNK terminal blocks (Price per 100)



General Accessories (Markers)		Product Hierarchy 300010	
Type	Description	Order Code	Price
MC612	MC612 marker card - contains 39 blank 6mm x 12mm tags (white) [pack size = 22]	1SNK150000R0000	
MC612PA	MC612PA marker card - contains 100 blank 6 x 12mm tags (white) [pack size = 20]	1SNK159999R0000	
MC612PA	MC612PA marker card - horizontal 10 x [1->10]	1SNK150011R0000	
MC612PA	MC612PA marker card - horizontal 10 x [11->20]	1SNK150021R0000	
MC612PA	MC612PA marker card - horizontal 10 x [21->30]	1SNK150031R0000	
MC612PA	MC612PA marker card - horizontal 10 x [31->40]	1SNK150041R0000	
MC612PA	MC612PA marker card - horizontal 10 x [41->50]	1SNK150051R0000	
MC612PA	MC612PA marker card - horizontal 10 x [51->60]	1SNK150061R0000	
MC612PA	MC612PA marker card - horizontal 10 x [61->70]	1SNK150071R0000	
MC612PA	MC612PA marker card - horizontal 10 x [71->80]	1SNK150081R0000	
MC612PA	MC612PA marker card - horizontal 10 x [91->100]	1SNK150101R0000	
MC612PA	MC612PA marker card - horizontal [1->100]	1SNK155011R0000	
MC612PA	MC612PA marker card - horizontal 100 x	1SNK158041R0000	
MC612PA	MC612PA marker card - horizontal 20 x [L1 L2 L3 N PE] 	1SNK159001R0000	
MC812	MC812 marker card - contains 30 blank 8mm x 12mm tags (white) [pack size = 22]	1SNK160000R0000	
MC812PA	MC812PA marker card - contains 100 blank 6 x 12mm tags (white) [pack size = 20]	1SNK169999R0000	
MC812PA	MC812PA marker card - horizontal 10 x [1->10]	1SNK160011R0000	
MC812PA	MC812PA marker card - horizontal 10 x [11->20]	1SNK160021R0000	
MC812PA	MC812PA marker card - horizontal 10 x [21->30]	1SNK160031R0000	
MC812PA	MC812PA marker card - horizontal 10 x [31->40]	1SNK160041R0000	
MC812PA	MC812PA marker card - horizontal 10 x [41->50]	1SNK160051R0000	
MC812PA	MC812PA marker card - horizontal 10 x [51->60]	1SNK160061R0000	
MC812PA	MC812PA marker card - horizontal 10 x [61->70]	1SNK160071R0000	
MC812PA	MC812PA marker card - horizontal 10 x [71->80]	1SNK160081R0000	
MC812PA	MC812PA marker card - horizontal 10 x [91->100]	1SNK160101R0000	

6



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# Terminals & connectors

## Feed through terminal blocks



### Feed Through Terminal Blocks 2.5mm<sup>2</sup>

#### Product Hierarchy 300002

Type	Description	Order Code	Price
MA2,5/5	2.5mm <sup>2</sup> feed through terminal (Grey)	1SNA115486R0300	
MA2,5/5.N	2.5mm <sup>2</sup> feed through terminal (Blue)	1SNA125486R0500	
MA2,5/5.P	2.5mm <sup>2</sup> feed through terminal, Ground (Green/Yellow)	1SNA165488R2700	
MA2,5/5.V0	2.5mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195486R0400	
MA2,5/5	2.5mm <sup>2</sup> feed through terminal (White)	1SNA105052R2100	
MA2,5/5	2.5mm <sup>2</sup> feed through terminal (Yellow)	1SNA105486R1200	
MA2,5/5.1	2.5mm <sup>2</sup> feed through terminal with partition (Grey)	1SNA115485R0200	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey)	1SNA118368R1600	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Blue)	1SNA128368R1000	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Yellow)	1SNA103062R2100	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Green)	1SNA103125R1500	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Orange)	1SNA103126R1600	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (White)	1SNA103312R2000	
FEM6 V0	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Beige) V0	1SNA198368R1700	
FEM61	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail	1SNA114776R2300	
FEM6C	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114777R2400	
SCMA5	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) fits into top of terminal	1SNA116728R2500	
SCF6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) for CPM cover	1SNA118707R0300	
SCF61	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey)	1SNA114202R2500	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114825R0500	
SCFCV1-2	Separator end section (Grey) for CPV cover	1SNA116795R1100	
BJMI5	Jumper bar - 2 pole (IP20)	1SNA176278R1600	
BJMI5	Jumper bar - 3 pole (IP20)	1SNA176279R1700	
BJMI5	Jumper bar - 4 pole (IP20)	1SNA176280R0500	
BJMI5	Jumper bar - 5 pole (IP20)	1SNA176281R2200	
BJMI5	Jumper bar - 10 pole (IP20)	1SNA176282R2300	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	
PC5	Comb jumper bar - 10 poles	1SNA113544R1200	
EIP	Insulating tip for comb jumper bar	1SNA113550R2400	
CPM	Protective cover (Clear) 0.5 metres	1SNA187312R1400	
CPV1-2	Protective cover (Clear) 1 metre	1SNA176816R1200	
AL2	Test socket 2mm dia.	1SNA163043R2100	



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# Terminals & connectors

## Feed through terminal blocks

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
CBM5	Screen bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen bar 0.8mm thickness	1SNA178746R1500	
EPU5	Yellow protection label (strip of 12 labels)	1SNA107033R1000	



### Feed Through Terminal Blocks 4.0mm²

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/6	4.0mm² feed through terminal (Grey)	1SNA115116R0700	
M4/6	4.0mm² feed through terminal (Blue)	1SNA125116R0100	
M4/6.P	4.0mm² feed through terminal, Ground screws onto dinrail (Green/Yellow)	1SNA165113R1600	
D4/6.P	4.0mm² feed through terminal, Ground snaps onto dinrail (Green/Yellow)	1SNA165809R0100	
M4/6	4.0mm² feed through terminal (Green)	1SNA105001R2700	
M4/6	4.0mm² feed through terminal (Orange)	1SNA105002R2000	
M4/6	4.0mm² feed through terminal (Black)	1SNA105031R1400	
M4/6	4.0mm² feed through terminal (Red)	1SNA105032R1500	
M4/6	4.0mm² feed through terminal (White)	1SNA105051R2000	
M4/6	4.0mm² feed through terminal (Yellow)	1SNA105116R1600	
M4/6	4.0mm² feed through terminal (Brown)	1SNA105209R1400	
M4/6 V0	4.0mm² feed through terminal (Beige) V0	1SNA195116R0000	
M4/6.1	4.0mm² feed through terminal with partition (Grey)	1SNA115259R0600	
M4/6.C	4.0mm² feed through terminal with partition and 2.5mm dia. test socket (Grey)	1SNA115208R0400	
M4/6.3A	4.0mm² feed through terminal (3 screw clamps) (Grey)	1SNA115468R2000	
M4/6.3A	4.0mm² feed through terminal (3 screw clamps) (Blue)	1SNA125468R2200	
M4/6.3A.P	4.0mm² feed through terminal, (3 screw clamps) Ground (Green/Yellow)	1SNA195637R1200	
M4/6.3A.1	4.0mm² feed through terminal with partition (3 screw clamps) (Grey)	1SNA115483R0000	
M4/6.4A	4.0mm² feed through terminal (4 screw clamps) (Grey)	1SNA115479R2300	
M4/6.4A	4.0mm² feed through terminal (4 screw clamps) (Blue)	1SNA125479R2500	
M4/6.4A.P	4.0mm² feed through terminal, (4 screw clamps) Ground (Green/Yellow)	1SNA195638R2300	
MS4/6	4.0mm² compact feed through terminal (Grey)	1SNA115265R2400	



6

### Accessories

FEM6	End section 2.5mm² - 10mm² (Grey)	1SNA118368R1600	
FEM6	End section 2.5mm² - 10mm² (Blue)	1SNA128368R1000	
FEM6	End section 2.5mm² - 10mm² (Yellow)	1SNA103062R2100	
FEM6	End section 2.5mm² - 10mm² (Green)	1SNA103125R1500	
FEM6	End section 2.5mm² - 10mm² (Orange)	1SNA103126R1600	
FEM6	End section 2.5mm² - 10mm² (White)	1SNA103312R2000	
FEM6 V0	End section 2.5mm² - 10mm² (Beige) V0	1SNA198368R1700	
FEM3A	End section for M4/6.3A Series (Grey)	1SNA116576R1500	
FEM3AP	End section for M4/6.3A.P (Green)	1SNA199876R2600	
FEM4A	End section for M4/6.4A (Grey)	1SNA116629R2200	
FEM4AP	End section for M4/6.4A.P (Green)	1SNA199879R0100	



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# Terminals & connectors

## Feed through terminal blocks

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEMS6	Compact end section for MS4/6 (Grey)	1SNA113885R0100	
FEM6C	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114777R2400	
SCMA5	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) fits into top of terminal	1SNA116728R2500	
SCF6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) for CPM cover	1SNA118707R0300	
SCF61	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey)	1SNA114202R2500	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto Dinrail, for CPM cover	1SNA114825R0500	
SCFCV1-2	Separator end section (Grey) for CPV cover	1SNA116795R1100	
BJMI6	Jumper bar - 2 pole (IP20)	1SNA176663R0000	
BJMI6	Jumper bar - 3 pole (IP20)	1SNA176664R0100	
BJMI6	Jumper bar - 4 pole (IP20)	1SNA176665R0200	
BJMI6	Jumper bar - 5 pole (IP20)	1SNA176666R0300	
BJMI6	Jumper bar - 10 pole (IP20)	1SNA176667R0400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	
PC6	Comb jumper bar - 2 pole for MS4/6 compact terminal	1SNA113546R1400	
PC6	Comb jumper bar - 10 pole for MS4/6 compact terminal	1SNA113548R2600	
EIP	Insulating tip for comb jumper bar	1SNA113550R2400	
CPM	Protective cover (Clear) 0.5 metres	1SNA187312R1400	
CPV1-2	Protective cover (Clear) 1 metre	1SNA176816R1200	
AL2	Test socket 2mm dia.	1SNA163043R2100	
FC2	Test plug 2mm diameter	1SNA007865R2600	
CBM5	Screen bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen bar 0.8mm thickness	1SNA178746R1500	
EP6	Protection label for 4 x 6mm pitch blocks	1SNA163427R1700	
VSP6	Nylon screw for EP6 label	1SNA163433R1500	
EPU6	Yellow protection label (strip of 12 labels)	1SNA107038R2500	



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# Terminals & connectors

## Feed through terminal blocks



### Feed Through Terminal Blocks 6.0mm<sup>2</sup>

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M6/8	6.0mm <sup>2</sup> feed through terminal (Grey)	1SNA115118R1100	
M6/8.N	6.0mm <sup>2</sup> feed through terminal (Blue)	1SNA125118R1300	
M6/8.P	6.0mm <sup>2</sup> feed through terminal, Earth (Green/Yellow)	1SNA165114R1700	
M6/8	6.0mm <sup>2</sup> feed through terminal (Yellow)	1SNA105118R2000	
M6/8.V0	6.0mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195118R1200	
M6/8.1	6.0mm <sup>2</sup> feed through terminal with partition (Grey)	1SNA115260R0300	
M6/8.4	6.0mm <sup>2</sup> feed through terminal with partition and 4mm dia. test socket (Grey)	1SNA115219R2600	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey)	1SNA118368R1600	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Blue)	1SNA128368R1000	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Yellow)	1SNA103062R2100	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Green)	1SNA103125R1500	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Orange)	1SNA103126R1600	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (White)	1SNA103312R2000	
FEM6 V0	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Beige) V0	1SNA198368R1700	
FEM6C	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114777R2400	
SCMA5	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) fits into top of terminal	1SNA116728R2500	
SCF6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) for CPM cover	1SNA118707R0300	
SCF61	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey)	1SNA114202R2500	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114825R0500	
SCFCV1-2	Separator end section (Grey) for CPV cover	1SNA116795R1100	
BJMI8	Jumper bar - 2 pole (IP20)	1SNA116795R1100	
BJMI8	Jumper bar - 3 pole (IP20)	1SNA176670R1300	
BJMI8	Jumper bar - 4 pole (IP20)	1SNA176671R0000	
BJMI8	Jumper bar - 5 pole (IP20)	1SNA176672R0100	
BJMI8	Jumper bar - 10 pole (IP20)	1SNA176673R0200	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	
PC8	Comb jumper bar - 10 pole	1SNA163313R2400	
CPM	Protective cover (Clear) 0.5 metres	1SNA187312R1400	
CPV1-2	Protective cover (Clear) 1 metre	1SNA176816R1200	
AL2	Test socket 2mm dia.	1SNA163043R2100	
AL4	Test socket 4mm dia.	1SNA163262R0100	

6



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# Terminals & connectors

## Feed through terminal blocks

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FC2	Test plug 2mm diameter	1SNA007865R2600	
CBM5	Screen bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen bar 0.8mm thickness	1SNA178746R1500	
EP6	Protection label for 3 x 8mm pitch blocks	1SNA163427R1700	
EP8	Protection label for 4 x 8mm pitch blocks	1SNA163428R2000	
VSP6	Nylon screw for EP6 / EP8 Label	1SNA163433R1500	
EPU6	Yellow protection label (strip of 12 labels)	1SNA107038R2500	

Feed Through Terminal Blocks 10.0mm <sup>2</sup>		Product Hierarchy 300002	
Type	Description	Order Code	Price
M10/10	10.0mm <sup>2</sup> feed through terminal (Grey)	1SNA115120R1700	
M10/10.N	10.0mm <sup>2</sup> feed through terminal (Blue)	1SNA125120R1100	
M10/10.P	10.0mm <sup>2</sup> feed through terminal, Ground (Green/Yellow)	1SNA165115R1000	
M10/10	10.0mm <sup>2</sup> feed through terminal (Yellow)	1SNA105120R2600	
M10/10.V0	10.0mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195120R1000	
M10/10.V0	10.0mm <sup>2</sup> feed through terminal (Blue) V0	1SNA199004R2000	
M10/10	10.0mm <sup>2</sup> feed through terminal (Black)	1SNA400188R0300	
M10/10	10.0mm <sup>2</sup> feed through terminal (Red)	1SNA400189R0400	
M10/10.1	10.0mm <sup>2</sup> feed through terminal with partition (Grey)	1SNA115261R2000	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey)	1SNA118368R1600	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Blue)	1SNA128368R1000	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Yellow)	1SNA103062R2100	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Green)	1SNA103125R1500	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Orange)	1SNA103126R1600	
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (White)	1SNA103312R2000	
FEM6 V0	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Beige) V0	1SNA198368R1700	
FEM6C	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114777R2400	
SCMA5	Circuit separator 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) fits into top of terminal	1SNA116728R2500	
SCF6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) for CPM cover	1SNA118707R0300	
SCF61	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey)	1SNA114202R2500	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114825R0500	
SCFCV1-2	Separator end section (Grey) for CPV cover	1SNA116795R1100	
CPM	Protective cover (Clear) 0.5 metres	1SNA187312R1400	
CPV1-2	Protective cover (Clear) 1 metre	1SNA176816R1200	



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# Terminals & connectors

## Feed through terminal blocks

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
AL2	Test socket 2mm diameter	1SNA163043R2100	
AL4	Test socket 4mm diameter	1SNA163262R0100	
FC2	Test plug 2mm diameter	1SNA007865R2600	
BJMI10	Jumper bar - 2 pole (IP20)	1SNA176675R0400	
BJMI10	Jumper bar - 3 pole (IP20)	1SNA176676R0500	
BJMI10	Jumper bar - 4 pole (IP20)	1SNA176677R0600	
BJMI10	Jumper bar - 5 pole (IP20)	1SNA176678R1700	
BJMI10	Jumper bar - 10 pole (IP20)	1SNA176679R1000	
PC10	Comb jumper bar - 10 pole	1SNA163315R2600	
EP8	Protection label for 3 x 10mm blocks	1SNA163428R2000	
VSP6	Nylon screw for EP8 label	1SNA163433R1500	
EPU6	Yellow protection label (strip of 12 labels)	1SNA107038R2500	

Feed Through Terminal Blocks 16.0mm <sup>2</sup>		Product Hierarchy 300002	
Type	Description	Order Code	Price
M16/12	16.0mm <sup>2</sup> feed through terminal (Grey)	1SNA115129R1400	
M16/12.N	16.0mm <sup>2</sup> feed through terminal (Blue)	1SNA125129R1600	
M16/12.P	16.0mm <sup>2</sup> feed through terminal, Ground (Green/Yellow)	1SNA165130R2300	
M16/12.V0	16.0mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195129R1500	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEM12	End section 16mm <sup>2</sup> (Grey)	1SNA118618R0100	
FEM12	End section 16mm <sup>2</sup> (Blue)	1SNA128618R0300	
FEM12	End section 16mm <sup>2</sup> (Yellow)	1SNA103065R2400	
FEM12 V0	End section 16mm <sup>2</sup> (Beige) V0	1SNA198618R0200	
SCF12	Separator end section 16mm <sup>2</sup> (grey) for CPM cover	1SNA113102R1000	
SCF12V0	Separator end section 16mm <sup>2</sup> (beige) V0	1SNA193102R1100	
SCFCV1-2	Separator end section (Grey) for CPV cover	1SNA116795R1100	
CPM	Protective cover (Clear) 0.5 metres	1SNA187312R1400	
CPV1-2	Protective cover (Clear) 1 metre	1SNA176816R1200	

6



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# Terminals & connectors

## Feed through terminal blocks

Feed Through Terminal Blocks 16.0mm <sup>2</sup>		Product Hierarchy 300002	
Type	Description	Order Code	Price
M16/12	16.0mm <sup>2</sup> feed through terminal (Grey)	1SNA115129R1400	
M16/12.N	16.0mm <sup>2</sup> feed through terminal (Blue)	1SNA125129R1600	
M16/12.P	16.0mm <sup>2</sup> feed through terminal, Ground (Green/Yellow)	1SNA165130R2300	
M16/12.V0	16.0mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195129R1500	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	
FEM12	End section 16mm <sup>2</sup> (Grey)	1SNA118618R0100	
FEM12	End section 16mm <sup>2</sup> (Blue)	1SNA128618R0300	
FEM12	End section 16mm <sup>2</sup> (Yellow)	1SNA103065R2400	
FEM12 V0	End section 16mm <sup>2</sup> (Beige) V0	1SNA198618R0200	
SCF12	Separator end section 16mm <sup>2</sup> (grey) for CPM cover	1SNA113102R1000	
SCF12V0	Separator end section 16mm <sup>2</sup> (beige) V0	1SNA193102R1100	
SCFCV1-2	Separator end section (Grey) for CPV cover	1SNA116795R1100	
CPM	Protective cover (Clear) 0.5 metres	1SNA187312R1400	
CPV1-2	Protective cover (Clear) 1 metre	1SNA176816R1200	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	
AL2	Test socket 2mm diameter	1SNA163043R2100	
AL4	Test socket 4mm diameter	1SNA163262R0100	
FC2	Test plug 2mm diameter	1SNA007865R2600	
BJMI12	Jumper bar - 2 pole (IP20)	1SNA179626R0600	
BJMI12	Jumper bar - 3 pole (IP20)	1SNA179628R1000	
BJMI12	Jumper bar - 4 pole (IP20)	1SNA179629R1100	
BJMI12	Jumper bar - 5 pole (IP20)	1SNA179630R1600	
BJMI12	Jumper bar - 10 pole (IP20)	1SNA179631R0300	
EPU6	Yellow protection label (strip of 12 labels)	1SNA107038R2500	

6



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# Terminals & connectors

## Feed through terminal blocks

Feed Through Terminal Blocks 35.0mm <sup>2</sup>		Product Hierarchy 300002	
Type	Description	Order Code	Price
M35/16	35.0mm <sup>2</sup> feed through terminal (Grey)	1SNA115124R0700	
M35/16.V0	35.0mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195124R0000	
M35/16.N	35.0mm <sup>2</sup> feed through terminal (Blue)	1SNA125124R0100	
M35/16.P	35.0mm <sup>2</sup> feed through terminal, Ground (Green/Yellow)	1SNA165111R1400	

Accessories - feed through terminals are enclosed no end section required		Product Hierarchy 300008	
Type	Description	Order Code	
SCFT1	Separator end section (grey)	1SNA103588R2600	
SCFCV1-2	Separator end section (Grey) for CPV cover	1SNA116795R1100	
CPV1-2	Protective cover (Clear) 1 metre	1SNA176816R1200	
AL4	Test socket 4mm diameter	1SNA163262R0100	
FC2	Test plug 2mm diameter	1SNA007865R2600	

BJMI16	Jumper bar - 2 pole (IP20)	1SNA206217R0000	
BJMI16	Jumper bar - 3 pole (IP20)	1SNA206218R1100	
BJMI16	Jumper bar - 4 pole (IP20)	1SNA206219R1200	
BJMI16	Jumper bar - 5 pole (IP20)	1SNA206220R1700	
BJMI16	Jumper bar - 10 pole (IP20)	1SNA206221R0400	

Feed Through Terminal Blocks 70.0mm <sup>2</sup>		Product Hierarchy 300002	
Type	Description	Order Code	
M70/22	70.0mm <sup>2</sup> feed through terminal (Grey)	1SNA115216R1300	
M70/22.N	70.0mm <sup>2</sup> feed through terminal (Blue)	1SNA125216R1500	
M70/22.V0	70.0mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195216R1400	
M70/22.P	70.0mm <sup>2</sup> feed through terminal, Ground (Green/Yellow) closed	1SNA399024R2300	

Accessories - feed through terminals are enclosed no end section required		Product Hierarchy 300008	
Type	Description	Order Code	
FEM22	End section 70mm <sup>2</sup> (Grey)	1SNA113065R1500	
FEM22	End section 70mm <sup>2</sup> (Blue)	1SNA123065R1700	
FEM22	End section 70mm <sup>2</sup> (Yellow)	1SNA103881R1400	
FEM22 V0	End section 70mm <sup>2</sup> (Beige) V0	1SNA193065R1600	

6



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# Terminal blocks

## Mini feed through & fuse terminal blocks



### 1.5mm² Mini Feed Through Terminal Blocks

		Product Hierarchy 300002	
Type	Description	Order Code	Price
DR1,5/5.1	1.5mm² mini feed through terminal with partition (grey)	1SNA112086R0200	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEDR5	End Section for 1.5mm² mini terminal	1SNA117318R2300	
BJS5	Unassembled jumper bar - 20 pole	1SNA177652R0600	
EVD5	Post and screw for BJS5 jumper	1SNA167900R0200	
FC2	Test Plug 2mm² diameter	1SNA007865R2600	



### 4.00mm² Mini Feed Through Terminal Blocks

		Product Hierarchy 300002	
Type	Description	Order Code	Price
DR4/6	4.0mm² feed through terminal (Grey)	1SNA110251R0500	
DR4/6.1	4.0mm² feed through terminal with partition (Grey)	1SNA110491R1700	
DR4/6.1.N	4.0mm² feed through terminal with partition (Blue)	1SNA120491R1100	
DR4/6.P	4.0mm² feed through terminal block, Ground (Green / Yellow)	1SNA160496R2600	

### Accessories

		Product Hierarchy 300002	
Type	Description	Order Code	Price
FEDR61	End section for DR4/6 & DR4/6.1 terminal (Grey)	1SNA117600R0300	1.52
FEDR61	End section for DR4/6 & DR4/6.1 terminal (Blue)	1SNA127600R0500	POA
FEDR63	End section for DR4/6.P terminal (Yellow)	1SNA103975R2100	3.47
SCDR61	Separator end section for DR4/6 & DR4/6.1 terminals (Grey)	1SNA173016R1000	POA
BJM62	Jumper bar - 2 pole for DR4/6 terminal	1SNA173217R2600	POA
BJM62	Jumper bar - 4 pole for DR4/6 terminal	1SNA173219R0000	POA
BJM62	Jumper bar - 10 pole for DR4/6 terminal	1SNA173226R2700	17.72

6



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# Terminal blocks

## Mini feed through & fuse terminal blocks

4.00mm <sup>2</sup> Mini Fuse Terminal Blocks		Product Hierarchy 300002	
Type	Description	Order Code	Price
DR4/8.SF	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey)	1SNA110368R1200	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEM8S	End section for DR4/8.SF fuse terminal (Grey)	1SNA116951R1500	

PC81	Comb jumper bar - 10 pole	1SNA173523R1100	
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TGA8	Assembly rod, 2 pole, to link flip top fuse terminals DR4/8.SF	1SNA168672R1100	
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ANT	Assembly ring locks TGA8 in place on flip top fuse terminals DR4/8.SF	1SNA168675R1400	
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FU520	5 x 20mm 250V 0.5A fuse	1SNA008288R1500	
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FU520	5 x 20mm 250V 1A fuse	1SNA008290R1300	
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FU520	5 x 20mm 250V 2A fuse	1SNA008291R0000	
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FU520	5 x 20mm 250V 3.15A fuse	1SNA008289R1600	
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FU520	5 x 20mm 250V 5A fuse	1SNA008292R0100	
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FU525	5 x 25mm 250V 2.5A fuse	1SNA167548R0400	
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FU525	5 x 25mm 250V 4A fuse	1SNA167549R0500	
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CN5	5 x 25mm neutral bar	1SNA179371R1600	
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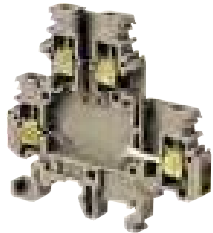
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# Terminal blocks

## Double deck feed through terminals



### 2.5mm<sup>2</sup> Double Deck Terminal Block

#### Product Hierarchy 300002

Type	Description	Order Code	Price
MA2,5/5.D2	2.5mm <sup>2</sup> feed through terminal (Grey)	1SNA115490R1300	
MA2,5/5.D2.N	2.5mm <sup>2</sup> feed through terminal (Blue)	1SNA125490R1500	
MA2,5/5.D2.V0	2.5mm <sup>2</sup> feed through terminal (Beige) V0	1SNA195490R1400	
MA2,5/5.D1.1	2.5mm <sup>2</sup> feed through terminal with vertical interconnection and partition on lower deck (Grey)	1SNA115530R1200	
MA2,5/5.D2.1	2.5mm <sup>2</sup> feed through terminal with partition on upper and lower deck (Grey)	1SNA115491R0000	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEM6D	End section 2.5mm <sup>2</sup> - 4.0mm <sup>2</sup> double deck (Grey)	1SNA118499R2300	
FEM6D	End section 2.5mm <sup>2</sup> - 4.0mm <sup>2</sup> double deck (Blue)	1SNA128499R2500	
FEM6D V0	End section 2.5mm <sup>2</sup> - 4.0mm <sup>2</sup> double deck (Beige) V0	1SNA198499R2400	
SCMA5D	Circuit separator (fits on top of terminal) (Grey)	1SNA116720R2100	
BJMI5D	Jumper bar - 2 pole (IP20)	1SNA176736R2100	
BJMI5D	Jumper bar - 3 pole (IP20)	1SNA176737R2200	
BJMI5D	Jumper bar - 4 pole (IP20)	1SNA176738R0300	
BJMI5D	Jumper bar - 5 pole (IP20)	1SNA176739R0400	
BJMI5D	Jumper bar - 10 pole (IP20)	1SNA176740R1100	
PC5	Comb jumper bar - 10 poles	1SNA113544R1200	
EIP	Insulating tip for comb jumper bar	1SNA113550R2400	
ITV5	Vertical interconnection to convert from 2 circuit to 1 circuit terminal	1SNA176259R1300	

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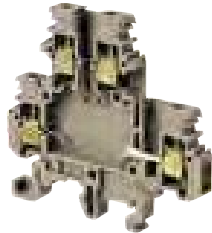


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# Terminal blocks

## Double deck feed through terminals



### 4.00mm<sup>2</sup> Double Deck Terminal Block

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/6.D2	4.0mm double deck feed through terminal (Grey)	1SNA115271R2200	
M4/6.D1	4.0mm double deck feed through terminal with vertical interconnection and partition on lower deck (Grey)	1SNA115166R1100	
M4/6.D2.N	4.0mm double deck feed through terminal (Blue)	1SNA125271R2400	
M4/6.D2.V0	4.0mm double deck feed through terminal (Beige) V0	1SNA195271R2300	
M4/6.D2.1	4.0mm double deck feed through terminal with partition (Grey)	1SNA115126R0100	
M4/6.D2.1.N	4.0mm double deck feed through terminal with partition (Blue)	1SNA125126R0300	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	
FEM6D	End section 2.5mm - 4.0mm double deck (Grey)	1SNA118499R2300	
FEM6D	End section 2.5mm - 4.0mm double deck (Blue)	1SNA128499R2500	
FEM6D V0	End section 2.5mm - 4.0mm double deck (Beige) V0	1SNA198499R2400	
BJMI6D	Jumper bar - 2 pole (IP20)	1SNA179668R2000	
BJMI6D	Jumper bar - 3 pole (IP20)	1SNA179669R2100	
BJMI6D	Jumper bar - 4 pole (IP20)	1SNA179670R2600	
BJMI6D	Jumper bar - 5 pole (IP20)	1SNA179671R1300	
BJMI6D	Jumper bar - 10 pole (IP20)	1SNA179672R1400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	
PC61	Comb jumper bar - 10 pole	1SNA163311R2200	
ITV6	Vertical interconnection to convert from 2 circuit to 1 circuit terminal	1SNA168962R0400	

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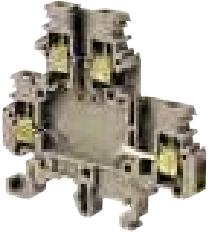


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# Terminal blocks

## Double deck terminals



### 6.00mm<sup>2</sup> Double Deck Terminal Block

#### Product Hierarchy 300002

Type	Description	Order Code	Price
M4/6.D2	6.0mm double deck feed through terminal (Grey)	1SNA115501R1200	
M6/8.D1	6.0mm double deck feed through terminal with vertical interconnection and partition on lower deck (Grey)	1SNA115498R1700	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEM8D1	End Section 6.0mm double deck, 1mm thick (Grey)	1SNA116656R2500	
FEM8D2	End Section 6.0mm double deck, 4mm thick (Grey)	1SNA116657R2600	
SCM6	Circuit separator (fits on top of terminal) (Grey)	1SNA113003R1000	
SCF6D	Separator end section (grey)	1SNA118495R1700	

AL2	Test socket 2mm diameter	1SNA163043R2100	
AL4	Test socket 4mm diameter	1SNA163262R0100	
FC2	Test plug 2mm diameter	1SNA007865R2600	

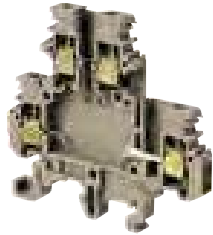
BJM18	Jumper bar - 2 pole (IP20)	1SNA176669R1600	
BJM18	Jumper bar - 3 pole (IP20)	1SNA176670R1300	
BJM18	Jumper bar - 4 pole (IP20)	1SNA176671R0000	
BJM18	Jumper bar - 5 pole (IP20)	1SNA176672R0100	
BJM18	Jumper bar - 10 pole (IP20)	1SNA176673R0200	



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# Terminal blocks

## Double deck terminals



### 4.00mm<sup>2</sup> Double Deck Blade Disconnect Terminal Block

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/6.D2.SNBT	4.0mm <sup>2</sup> double deck terminal with blade disconnect on upper deck (grey body / grey blade)	1SNA115561R1500	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEMS6D	End section for M4/6.D2.SNBT	1SNA116591R0500	
FC2	Test plug 2mm diameter	1SNA007865R2600	
BJMI6D	Jumper bar - 2 pole (IP20)	1SNA179668R2000	
BJMI6D	Jumper bar - 3 pole (IP20)	1SNA179669R2100	
BJMI6D	Jumper bar - 4 pole (IP20)	1SNA179670R2600	
BJMI6D	Jumper bar - 5 pole (IP20)	1SNA179671R1300	
BJMI6D	Jumper bar - 10 pole (IP20)	1SNA179672R1400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	

### 4.00mm<sup>2</sup> Double Deck Lever Disconnect Terminal Block

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/6.D2.2S2	4.0mm <sup>2</sup> double deck terminal with lever disconnect on both decks (grey body / 1 grey lever & 1 black lever)	1SNA199444R2500	

6



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# Terminal blocks

## Double deck terminals



### 4.00mm<sup>2</sup> Double Deck Component Holder Terminal Block

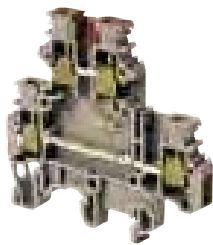
#### Product Hierarchy 300002

Type	Description	Order Code	Price
M4/6.DE1	4.0mm <sup>2</sup> double deck component holder terminal (lower circuit only) (Grey)	1SNA115177R1400	
M4/6.DE2	4.0mm <sup>2</sup> double deck component holder terminal (upper circuit only) (Grey)	1SNA115326R1100	
M4/6.DE	4.0mm <sup>2</sup> double deck component holder terminal (both upper and lower circuit) (Grey)	1SNA115185R0500	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEM6D	End Section 2.5mm - 4.0mm double deck (Grey)	1SNA118499R2300	
BJMI6D	Jumper bar - 2 pole (IP20)	1SNA179668R2000	
BJMI6D	Jumper bar - 3 pole (IP20)	1SNA179669R2100	
BJMI6D	Jumper bar - 4 pole (IP20)	1SNA179670R2600	
BJMI6D	Jumper bar - 5 pole (IP20)	1SNA179671R1300	
BJMI6D	Jumper bar - 10 pole (IP20)	1SNA179672R1400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	



### 4.00mm<sup>2</sup> Double Deck Diode Terminal Block

#### Product Hierarchy 300002

Type	Description	Order Code	Price
M4/6.DE2.D	4.0mm <sup>2</sup> double deck diode terminal with two negative outputs (Grey)	1SNA115327R1200	
M4/6.DE1.D	4.0mm <sup>2</sup> double deck diode terminal with one negative output (Grey)	1SNA115371R2600	
M4/6.DD	4.0mm <sup>2</sup> double deck diode terminal with cathode connected to lower deck (Grey)	1SNA115168R2300	
M4/6.DD1	4.0mm <sup>2</sup> double deck diode terminal with cathode connected to upper deck (Grey)	1SNA115184R0400	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEM6D	End Section 2.5mm - 4.0mm double deck (Grey)	1SNA118499R2300	
BJMI6D	Jumper bar - 2 pole (IP20)	1SNA179668R2000	
BJMI6D	Jumper bar - 3 pole (IP20)	1SNA179669R2100	
BJMI6D	Jumper bar - 4 pole (IP20)	1SNA179670R2600	
BJMI6D	Jumper bar - 5 pole (IP20)	1SNA179671R1300	
BJMI6D	Jumper bar - 10 pole (IP20)	1SNA179672R1400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	

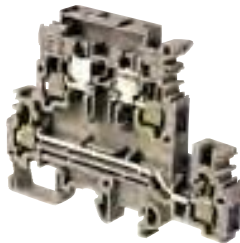


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# Terminal blocks

## Double deck terminals

6



4.00mm <sup>2</sup> Double Deck Indicator Terminal Block		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/6.DN	4.0mm <sup>2</sup> double deck terminal with 110VAC / 127VDC neon lamp (Grey)	1SNA115182R0200	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEM6D	End Section 2.5mm - 4.0mm double deck (Grey)	1SNA118499R2300	

BJMI6D	Jumper bar - 2 pole (IP20)	1SNA179668R2000	
BJMI6D	Jumper bar - 3 pole (IP20)	1SNA179669R2100	
BJMI6D	Jumper bar - 4 pole (IP20)	1SNA179670R2600	
BJMI6D	Jumper bar - 5 pole (IP20)	1SNA179671R1300	
BJMI6D	Jumper bar - 10 pole (IP20)	1SNA179672R1400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	

4.00mm <sup>2</sup> Double Deck Fuse Terminal Block		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/8.D2.SFL	4.0mm <sup>2</sup> double deck terminal 5 x 20 / 5 x 25mm flip top fuse holder and 110-230V neon lamp (Grey)	1SNA115466R2200	
M4/8.D2.SFD	4.0mm <sup>2</sup> double deck terminal 5 x 20 / 5 x 25mm flip top fuse holder and 24V LED (Grey)	1SNA115647R2300	
M4/8.SFJ	4.0mm <sup>2</sup> double deck terminal 5 x 20 / 5 x 25mm flip top fuse holder with internal jumper option (Grey)	1SNA115692R1100	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEM8D2S	End section for double deck fuse holder terminals (Grey)	1SNA116913R0700	

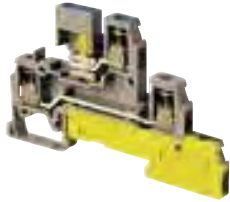
BJMI8	Jumper bar - 2 pole (IP20)	1SNA176669R1600	
BJMI8	Jumper bar - 3 pole (IP20)	1SNA176670R1300	
BJMI8	Jumper bar - 4 pole (IP20)	1SNA176671R0000	
BJMI8	Jumper bar - 5 pole (IP20)	1SNA176672R0100	
BJMI8	Jumper bar - 10 pole (IP20)	1SNA176673R0200	



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# Terminal blocks

## Double deck terminals



### 4.00mm<sup>2</sup> Double Deck + Protection Terminal Block

**Product Hierarchy  
300002**

Type	Description	Order Code	Price
D4/6.NTLP	4.0mm <sup>2</sup> neutral disconnect, live feed through and ground connection terminal block (Grey / Green / Yellow)	1SNA110439R2200	
D4/6.NLP	4.0mm <sup>2</sup> neutral feed through, live feed through and ground connection terminal block (Grey / Green / Yellow)	1SNA110440R0700	

### Accessories

**Product Hierarchy 300008**

Type	Description	Order Code	Price
FED6	End section for D4/6.NL blocks	1SNA116964R1200	



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# Terminal blocks

## Triple deck terminals



### 4.00mm<sup>2</sup> Triple Deck Fuse Terminal Block

		Product Hierarchy 300002	
Type	Description	Order Code	Price
D4/6.T1	4.0mm <sup>2</sup> triple deck feed through terminal with vertical interconnection (Black) V0 closed block	1SNA199219R0300	
D4/6.T3	4.0mm <sup>2</sup> triple deck feed through terminal (Grey) V0 closed block	1SNA299683R0100	
D4/6.T3.P	4.0mm <sup>2</sup> triple deck feed through terminal with 1 earth connection (Grey) V0 closed block	1SNA299684R0200	
D4/6.PT1	4.0mm <sup>2</sup> triple deck terminal with 7 earth connection (Green /Yellow) V0 closed block	1SNA199220R0000	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
BJM62	Jumper bar - 2 pole fits D4/6.T3 & D4/6.T3P	1SNA173217R2600	
BJM62	Jumper bar - 4 pole fits D4/6.T3 & D4/6.T3P	1SNA173219R0000	
BJM62	Jumper bar - 10 pole fits D4/6.T3 & D4/6.T3P	1SNA173226R2700	
PC61	Comb jumper bar - 10 pole fits all 6mm spacing triple decks terminals	1SNA163311R2200	

6



### 2.5mm<sup>2</sup> Triple Deck Sensor Terminal Block

		Product Hierarchy 300002	
Type	Description	Order Code	Price
D2.5/6.DA	2.5mm <sup>2</sup> triple deck feed through terminal (Grey)	1SNA115541R1100	
D2.5/6.DAL	2.5mm <sup>2</sup> triple deck feed through terminal with 24VDC red LED between upper and middle deck (Grey)	1SNA115535R0300	
D2.5/6.DAL2	2.5mm <sup>2</sup> triple deck feed through terminal with 24VDC green LED between lower and middle deck (Grey)	1SNA115547R1700	
D2.5/6.D	2.5mm <sup>2</sup> triple deck sensor terminal (Grey)	1SNA115542R1200	
D2.5/6.DL	2.5mm <sup>2</sup> triple deck sensor terminal with 24VDC red LED between upper and middle deck (Grey)	1SNA115537R0500	

### Accessories

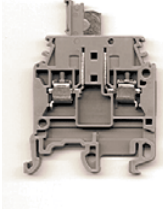
		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED3E	End section for triple deck sensor terminals (Grey)	1SNA116771R2000	



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# Terminal blocks

## Disconnect terminals



### 2.5mm<sup>2</sup> Disconnect (Switch) Terminal Block

#### Product Hierarchy 300002

Type	Description	Order Code	Price
MA2.5/5.SNB	2.5mm <sup>2</sup> disconnect terminal (Grey body, short grey blade)	1SNA115504R1500	
MA2.5/5.SNBTA	2.5mm <sup>2</sup> disconnect terminal (Grey body, short grey blade) with 2 test sockets 2.3mm diameter	1SNA115505R1600	
MA2.5/5.SNB	2.5mm <sup>2</sup> disconnect terminal (Grey body, short orange blade)	1SNA115699R2000	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEM6	End Section 2.5mm <sup>2</sup> disconnect terminal (Grey)	1SNA118368R1600	
SCF6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) for CPM cover	1SNA118707R0300	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114825R0500	
PC5	Comb jumper bar - 10 poles	1SNA113544R1200	
CBM5	Screen bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen bar 0.8mm thickness	1SNA178746R1500	

### 4.0mm<sup>2</sup> Disconnect (Switch) Terminal Block

#### Product Hierarchy 300002

Type	Description	Order Code	Price
M4/6.SNB	4.0mm <sup>2</sup> disconnect terminal (Orange body, short orange blade)	1SNA105053R2200	
M4/6.SNBT	4.0mm <sup>2</sup> disconnect terminal (Orange body, short orange blade) with 2 test sockets 2.3mm diameter	1SNA105054R2300	
M4/6.SNB	4.0mm <sup>2</sup> disconnect terminal (Grey body, short orange blade)	1SNA115986R0000	
M4/6.SNBT	4.0mm <sup>2</sup> disconnect terminal (Grey body, short orange blade) with 2 test sockets 2.3mm diameter	1SNA115987R0100	
M4/6.SNB	4.0mm <sup>2</sup> disconnect terminal (Blue body, short orange blade)	1SNA125686R1500	
M4/6.SNB	4.0mm <sup>2</sup> disconnect terminal (Grey body, long grey blade)	1SNA115686R1300	

### Accessories

#### Product Hierarchy 300008

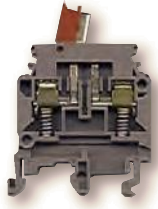
Type	Description	Order Code	Price
FEM62	End Section 4.0mm <sup>2</sup> disconnect terminal (Grey)	1SNA114994R0700	
FEM62	End Section 4.0mm <sup>2</sup> disconnect terminal (Orange)	1SNA103612R2500	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114825R0500	
CBM5	Screen bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen bar 0.8mm thickness	1SNA178746R1500	



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# Terminal blocks

## Disconnect terminals



### 2.5mm<sup>2</sup> Disconnect (Switch) Terminal Block

**Product Hierarchy  
300002**

Type	Description	Order Code	Price
M4/6.SNTS	4.0mm <sup>2</sup> disconnect safety terminal (Beige body, short orange blade) with 2 test sockets 2mm <sup>2</sup> dia	1SNA195229R2100	

### Accessories

**Product Hierarchy  
300008**

Type	Description	Order Code	Price
FEM6	End section for M4/6.SNTS disconnect terminal (grey)	1SNA118368R1600	
SCF6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) for CPM cover	1SNA118707R0300	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114825R0500	
CBM5	Screen bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen bar 0.8mm thickness	1SNA178746R1500	



### 4.0mm<sup>2</sup> Disconnect (Pluggable) Terminal Block

**Product Hierarchy  
300002**

Type	Description	Order Code	Price
M4/6.SNBTA	4.0mm <sup>2</sup> disconnect terminal with plug (grey body, grey plug) with 2 test sockets 2.3mm diameter	1SNA115496R0500	

### Accessories

**Product Hierarchy 300008**

Type	Description	Order Code	Price
FEM62	End section 4.0mm <sup>2</sup> disconnect (pluggable) terminals (Grey)	1SNA114994R0700	
SCFM6	Separator end section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Grey) snaps onto dinrail, for CPM cover	1SNA114825R0500	
CBM5	Screen bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen bar 0.8mm thickness	1SNA178746R1500	

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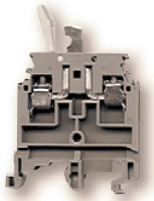


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# Terminal blocks

## Disconnect terminals



### 6.0mm<sup>2</sup> Disconnect (Switch) Terminal Block

**Product Hierarchy  
300002**

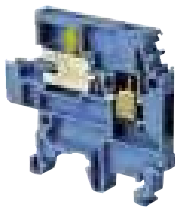
Type	Description	Order Code	Price
M6/8.SNB	6.0mm <sup>2</sup> disconnect terminal (grey body, long grey blade)	1SNA115688R2500	
M6/8.STP	6.0mm <sup>2</sup> push turn disconnect terminal (Grey body, yellow knob)	1SNA115277R2000	

### Accessories

**Product Hierarchy  
300008**

Type	Description	Order Code	Price
FEM8	End Section 6.0mm <sup>2</sup> for M6/8.SNB disconnect terminal (grey)	1SNA113373R2600	
FEMT1	End Section 6.0mm <sup>2</sup> for M6/8.STP disconnect terminal (grey)	1SNA113137R0200	

PC8	Comb type jumper bar 10 way	1SNA163313R2400	
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### 6.0mm<sup>2</sup> Interruptible Neutral Terminal Block

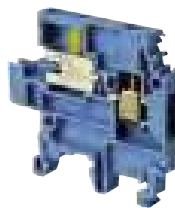
**Product Hierarchy  
300002**

Type	Description	Order Code	Price
M6/8.NT	6.0mm <sup>2</sup> Neutral terminal with sliding link disconnect. Same profile as M6/8	1SNA125119R1400	

### Accessories

**Product Hierarchy  
300008**

Type	Description	Order Code	Price
FEM6	End section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Blue)	1SNA128368R1000	
B03	10mm <sup>2</sup> x 3mm <sup>2</sup> copper busbar 1 metre	1SNA164406R2400	
VRB3	Busbar lock	1SNA128035R1600	



### 10mm<sup>2</sup> Interruptible Neutral Terminal Block

**Product Hierarchy 300002**

Type	Description	Order Code	Price
M10/10.NT	10mm <sup>2</sup> Neutral Block with sliding link disconnect. Same profile as M10/10	1SNA125121R0600	

### Accessories

**Product Hierarchy  
300008**

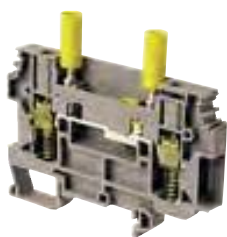
Type	Description	Order Code	Price
FEM6	End Section 2.5mm <sup>2</sup> - 10mm <sup>2</sup> (Blue)	1SNA128368R1000	
B03	10mm <sup>2</sup> x 3mm <sup>2</sup> copper busbar 1 metre	1SNA164406R2400	
VRB3	Busbar lock	1SNA128035R1600	



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# Terminal blocks

## Disconnect terminals



### 6.0mm<sup>2</sup> Sliding Link Disconnect Terminal Block

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M6/8.ST1	6.0mm <sup>2</sup> sliding link disconnect terminal block	1SNA115236R1700	
M6/8.ST4	6.0mm <sup>2</sup> sliding link disconnect terminal block for jumper bars on right side (grey)	1SNA115240R0700	
M6/8.ST5	6.0mm <sup>2</sup> sliding link disconnect terminal block for jumper bars on left side (grey)	1SNA115241R2400	
M6/8.ST6	6.0mm <sup>2</sup> sliding link disconnect terminal block for jumper bars left and right sides (grey)	1SNA115242R2500	
M6/8.ST7	6.0mm <sup>2</sup> feed through terminal (same profile as sliding link disconnect blocks) (grey)	1SNA115243R2600	
M6/8.ST7.V0	6.0mm <sup>2</sup> feed through terminal (same profile as sliding link disconnect blocks) (beige)	1SNA195243R2700	
M6/8.ST1.V2.IP20	6.0mm <sup>2</sup> sliding link disconnect terminal block with 2 x 4mm IP20 test sockets (grey)	1SNA115971R1000	
M6/8.ST1.V0.IP20	6.0mm <sup>2</sup> sliding link disconnect terminal block with 2 x 4mm IP20 test sockets (beige)	1SNA195639R2400	
D6/8.ST1.RS	6.0mm <sup>2</sup> sliding link disconnect safety terminal block with 2 x 4mm IP20 test sockets (grey)	1SNA115831R0400	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	
FEMT2	End Section for M6/8.ST series of disconnect blocks (grey)	1SNA113629R2700	
FEMT2.V0	End Section for M6/8.ST1.V2.IP20 disconnect block (beige)	1SNA193629R2000	
FEM8T6	End section for D6/8.ST1.RS disconnect terminal (Grey)	1SNA215266R0100	
SCFT2	Separator End Section for M6/8.ST series of disconnect blocks (grey)	1SNA114522R0500	
SCFT2.V0	Separator End Section for M6/8.ST series of disconnect blocks (beige)	1SNA194522R0600	
AL4	4mm test socket	1SNA163313R2400	
PC8	Comb jumper bar - 10 pole	1SNA163313R2400	
PCS4	Sliding switch bridge - 4 pole	1SNA199870R0400	
PCS2	Sliding switch bridge - 2 pole	1SNA199871R2100	

6



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# Terminal blocks

## Power terminals



### Single Stud Terminals

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M35/26.F	1 x M6 studs (Grey)	1SNA115141R1000	
M70/31.F	1 x M8 studs (Grey)	1SNA115144R1300	
M120/35.F	1 x M8 studs (Grey)	1SNA115147R1600	

### Double Stud Terminals

D35/27.FF	2xM6 studs (Grey) V0	1SNA190001R2000	
D70/32.FF	2xM8 studs (Grey) V0	1SNA190002R2100	
D120/42.FF	2xM10 studs (Grey) V0	1SNA190003R2200	
D185/55.FF	2xM12 studs (Grey) V0	1SNA190004R2300	
D300/55.FF	2xM16 studs (Grey) V0	1SNA190005R2400	

M35/26.FF	2 x M6 studs (Grey)	1SNA115140R2300	
M70/31.FF	2 x M8 studs (Grey)	1SNA115143R1200	
M120/35.FF	2 x M8 studs (Grey)	1SNA115146R1500	
M300/42.FF	2 x M10 studs (Grey)	1SNA115149R2000	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
CPUF35	Covers for D35/27.FF (2 required per terminal)	1SNA190016R1600	
CPUF70	Covers for D70/32.FF (2 required per terminal)	1SNA190017R1700	
CPUF120	Covers for D120/42.FF (2 required per terminal)	1SNA190018R2000	
CPUF185	Covers for D185/55.FF & D300/55.FF (2 required per terminal)	1SNA190019R2100	

BJS27	Jumper bar 2 way for D35/27.FF	1SNA205772R1300	
BJS27	Jumper bar 3 way for D35/27.FF	1SNA205773R1400	
BJS32	Jumper bar 2 way for D70/32.FF	1SNA205774R1500	
BJS32	Jumper bar 3 way for D70/32.FF	1SNA205775R1600	
BJS42	Jumper bar 2 way for D120/42.FF	1SNA205776R1700	
BJS42	Jumper bar 3 way for D120/42.FF	1SNA205777R1000	
BJS551	Jumper bar 2 way for D185/55.FF & D300/55.FF	1SNA205778R2100	
BJS551	Jumper bar 3 way for D185/55.FF & D300/55.FF	1SNA205779R2200	

ECP26	Partition for M35/26.F & .FF terminals (Grey)	1SNA113689R2400	
ECP31	Partition for M70/31.F & .FF terminals (Grey)	1SNA113690R2100	
ECP35	Partition for M120/35.F & .FF terminals (Grey)	1SNA113691R1600	
ECP42	Partition for M300/42.FF terminals (Grey)	1SNA113692R1700	

CPP261	Cover for 1 x M35/36.F or .FF terminal (2 ECP26 partitions required) (Clear)	1SNA168202R1300	
CPP262	Cover for 2 x M35/36.F or .FF terminals (2 ECP26 partitions required) (Clear)	1SNA168201R1200	
CPP263	Cover for 3 x M35/36.F or .FF terminals (2 ECP26 partitions required) (Clear)	1SNA163403R2000	
CPP311	Cover for 1 x M70/32.F or .FF terminal (2 ECP31 partitions required) (Clear)	1SNA168204R1500	
CPP312	Cover for 2 x M70/32.F or .FF terminals (2 ECP31 partitions required) (Clear)	1SNA168203R1400	



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# Terminal blocks

## Power terminals

Accessories		Product Hierarchy 300002	
Type	Description	Order Code	Price
CPP313	Cover for 3 x M70/32.F or .FF terminals (2 ECP31 partitions required) (Clear)	1SNA163409R0600	
CPP351	Cover for 1 x M120/32.F or .FF terminal (2 ECP35 partitions required) (Clear)	1SNA168206R1700	
CPP352	Cover for 2 x M120/32.F or .FF terminals (2 ECP35 partitions required) (Clear)	1SNA168205R1600	
CPP353	Cover for 3 x M120/32.F or .FF terminals (2 ECP35 partitions required) (Clear)	1SNA163418R2600	
CPP422	Cover for 2 x M300/42.FF terminals (2 ECP42 partitions required) (Clear)	1SNA168207R1000	
CPP423	Cover for 3 x M300/42.FF terminals (2 ECP42 partitions required) (Clear)	1SNA163424R1400	

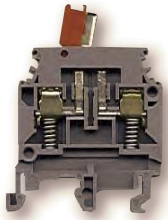
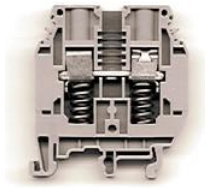
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# Terminal blocks

## Security terminals



### Safety Connection Terminal Blocks

#### Product Hierarchy 300002

Type	Description	Order Code	Price
M4/6.RS	4.0mm feed through terminal with safety connection (Grey)	1SNA115930R1300	
M6/8.RS	6.0mm feed through terminal with safety connection (Grey)	1SNA115685R1200	
M10/10.RS	10.0mm feed through terminal with safety connection (Grey)	1SNA115320R2700	
M4/6.SNTS	4.0mm disconnect terminal (Grey body, short orange blade) with safety connection	1SNA115229R2000	
M6/8.STPRS	6.0mm feed through terminal with safety connection (Grey) with 1/4 turn disconnect	1SNA115678R0200	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEMR8	End section for M4/6.RS & M6/8.RS	1SNA116987R0200	
FEMR10	End section for M10/10.RS	1SNA114434R0500	
FEM6	End section for M4/6.SNTS	1SNA118368R1600	
FEMR8T	End section for M6/8.STPRS	1SNA116991R0600	

AL4	4.0mm Test socket for M6/8.RS	1SNA179762R1600	
BP8.A4	Bridging plug, 2 pole for M6/8.RS	1SNA173888R2000	

BJS10	Unassembled jumper bar, 2 pole for M10/10.RS	1SNA164585R1700	
BJS10	Unassembled jumper bar, 10 pole for M10/10.RS	1SNA164588R2200	
BJS10	Unassembled jumper bar, 20 pole for M10/10.RS	1SNA177654R0000	
PL101	Central socket and screw for unassembled jumper bar for M10/10.RS	1SNA163181R1100	
BJS8	Unassembled jumper bar, 2 pole for M6/8.RS	1SNA164581R1300	
BJS8	Unassembled jumper bar, 3 pole for M6/8.RS	1SNA164582R1400	
BJS8	Unassembled jumper bar, 5 pole for M6/8.RS	1SNA164737R2600	
EV6I	Screw, post and washer for jumper bar for M4/6.RS and M6/8.RS	1SNA206394R0200	

EP6	Protection label for 4 x 6mm pitch blocks	1SNA163427R1700	
VSP6	Nylon screw for EP6 label	1SNA163433R1500	

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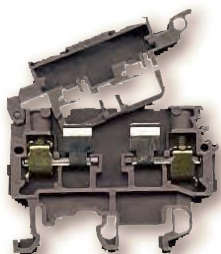


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# Terminal blocks

## Fuse terminals



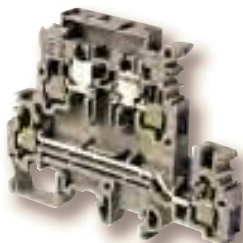
### 4.0mm<sup>2</sup> Fuse Terminal Blocks

		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/8.SF	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey)	1SNA115657R2500	
M4/8.SF2	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Orange)	1SNA105135R1100	
M4/8.SF.V0	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Beige) V0	1SNA195657R2600	
M4/8.SFL	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey) with green neon lamp 110-230V	1SNA115661R2100	
M4/8.SFD	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey) with 24V LED	1SNA115663R2300	
M4/8.SFDT	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey) with 24V LED and 2 test sockets 2mm	1SNA115665R2500	
M4/8.SN2	Fuse terminal (flip top) complete with CN5 neutral bar (Grey blue, Blue lever)	1SNA115659R0700	
M4/8.SN2	Fuse terminal (flip top) complete with CN5 neutral bar (Orange)	1SNA105136R1200	
M4/6.SB	Disconnect terminal for BFAUTO mini automotive fuse holder (Grey)	1SNA115435R0700	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEM8S	End section for M4/8.SF fuse terminal (Grey)	1SNA116951R1500	
FEM8S	End section for M4/8.SF fuse terminal (Orange)	1SNA103923R1500	
FEM8S	End section for M4/8.SF fuse terminal (Beige) V0	1SNA196951R1600	
PC81	Jumper bar (comb style) 10 way	1SNA173523R1100	
TGA8	Assembly rod, 2 pole, to link flip top fuse carriers M4/8.SF M4/8.SN series.	1SNA168672R1100	
ANT	Assembly ring locks TGA8 in place on flip top fuse carriers M4/8.SF M4/8.SN series.	1SNA168675R1400	

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### 4.0mm<sup>2</sup> Double Deck Fuse Terminal Blocks

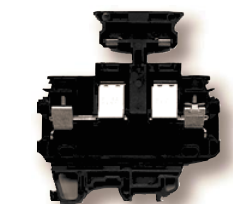
		Product Hierarchy 300002	
Type	Description	Order Code	Price
M4/8.D2.SF	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey)	1SNA115604R2100	

### 6.0mm<sup>2</sup> Fuse Terminal Blocks

M10/16.SF1	6mm Fuse terminal (pull top) for 11/32" x 1 1/4" fuse (Grey body & holder) closed block	1SNA115375R2200	
M10/16.SN1	6mm Fuse terminal (pull top) for 11/32" x 1 1/4" fuse (Grey body blue holder) closed block	1SNA115376R2300	
M10/16.SF	6mm Fuse terminal (pull top) for 1/4" x 1 1/4" fuse (Grey body & holder) closed block	1SNA115377R2400	
M10/16.SN	6mm Fuse terminal (pull top) for 1/4" x 1 1/4" fuse (Grey body blue holder) closed block	1SNA115379R0600	

### Accessories

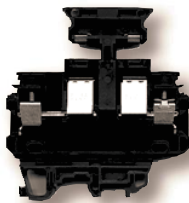
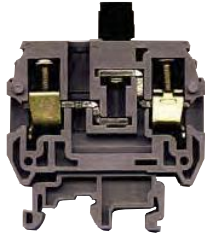
		Product Hierarchy 300008	
Type	Description	Order Code	Price
PC16	Comb jumper bar, 4 pole for M10/16.SF terminals	1SNA116734R1300	
PC16	Comb jumper bar, 10 poles for M10/16.SF terminals	1SNA116735R1400	
FEM8D2S	End section for M4/8.D2.SF terminals	1SNA116913R0700	



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# Terminal blocks

## Fuse terminals



### 10mm<sup>2</sup> Fuse Terminal Blocks

#### Product Hierarchy 300002

Type	Description	Order Code	Price
MB10/12.SF	10mm Fuse terminal (screw top) for 5x20, 5x25mm fuse (Grey)	1SNA111033R0300	
MB10/12.SFL	10mm Fuse terminal (screw top) for 5x20, 5x25mm fuse (Grey) with neon fuse blown indication (110/220v)	1SNA111034R0400	
MB10/22.SF	10mm Fuse terminal (pull top) for 11/32" x 1'1/2" fuse (Grey body & holder) closed block	1SNA116302R2300	
MB10/22.SN	10mm Fuse terminal (pull top) for 11/32" x 1'1/2" fuse (Grey body blue holder) closed block	1SNA116304R2500	
MU10/14.5.SF1	10mm Fuse terminal (pull top) for 5x20 & 5x25mm fuse (Black body & holder) closed block	1SNA199011R1600	
MU10/14.5.SF2	10mm Fuse terminal (pull top) for 1/4" x 1'1/4" fuse (Black body & holder) closed block	1SNA199013R1000	
MU10/13.SF2	10mm Fuse terminal (pull top) for 1/4" x 1'1/4" fuse (Black body & holder) open block	1SNA199014R1100	
MU10/13.SN3	10mm Fuse terminal (pull top) for 1/4" x 1'1/4" fuse (Black body & blue holder) open block	1SNA199021R1000	
ML10/13.SF	10mm Fuse terminal (flip top) for 1/4" x 1'1/4" fuse (Black body & holder) open block	1SNA199095R1300	
ML10/13.SN	10mm Fuse terminal (flip top) for 1/4" x 1'1/4" fuse (Black body & blue holder) open block	1SNA199105R2200	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEM12S	End section for MB10/12 fuse blocks	1SNA117628R2200	
FEM13U	End section for MU10/13 & ML10/13 fuse blocks	1SNA199635R2400	
BJS131	Unassembled jumper bar, 10 pole for MU10/13 series fuse terminals	1SNA175991R1100	
VJS11	Screw for BJS131 jumper bar	1SNA163394R2600	
RJD11	Washer for BJS131 jumper bar	1SNA168783R0100	
PC13	Comb jumper bar 10 pole for MU10/13 series fuse terminals	1SNA173510R2000	
BJS12	Unassembled jumper bar, 20 pole for MB10/12 series fuse terminals	1SNA177653R0700	
	Screw for BJS12 jumper bar	1SNA163574R2200	
	Washer for BJS12 jumper bar	1SNA163633R2500	
PC22	Comb jumper bar 3 pole for MB10/22 series fuse terminals	1SNA205295R0600	
PC22	Comb jumper bar 10 pole for MB10/22 series fuse terminals	1SNA174151R2500	



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# Terminal blocks

## Fuse terminals

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FU520	5 x 20mm 250V 0.5A fuse	1SNA008288R1500	
FU520	5 x 20mm 250V 1A fuse	1SNA008290R1300	
FU520	5 x 20mm 250V 2A fuse	1SNA008291R0000	
FU520	5 x 20mm 250V 3.15A fuse	1SNA008289R1600	
FU520	5 x 20mm 250V 5A fuse	1SNA008292R0100	
FU525	5 x 25mm 250V 2.5A fuse	1SNA167548R0400	
FU525	5 x 25mm 250V 4A fuse	1SNA167549R0500	
CN5	5 x 25mm neutral bar	1SNA179371R1600	
FU103	10.3 x 38mm 500V 8A fuse	1SNA167079R0100	
FU103	10.3 x 38mm 500V 10A fuse	1SNA167080R2700	
FU103	10.3 x 38mm 500V 25A fuse	1SNA167084R1700	
FU853	8.5 x 31.5mm 6A fuse	1SNA163849R0600	
FU633	6.35 x 32mm 4A quick blow fuse	1SNA168559R1000	
FU633	6.35 x 32mm 6.3A quick blow fuse	1SNA168560R1500	
CN	6.35 x 32mm neutral bar	1SNA173582R1500	
BFAUTO	Automotive style fuse holder (black) for use with M4/6.SB terminals	1SNA299486R2400	

6



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# Terminal blocks

## Distribution blocks



### Distribution Bars

		Product Hierarchy 300002	
Type	Description	Order Code	Price
DBTI	7 way neutral bar DIN 3 mounting (Blue)	1SNA356100R1500	
DBTI	7 way neutral bar DIN 3 mounting (Green)	1SNA356101R0200	
DBTI	12 way neutral bar DIN 3 mounting (Blue)	1SNA356102R0300	
DBTI	12 way neutral bar DIN 3 mounting (Green)	1SNA356103R0400	



### Distribution Terminals

MB4/6.L2	2 x 4mm² terminals commoned internally (Grey)	1SNA115406R1300	
MB4/6.L3	3 x 4mm² terminals commoned internally (Grey)	1SNA115407R1400	
MB4/6.L4	4 x 4mm² terminals commoned internally (Grey)	1SNA115408R2500	
MB4/6.L5	5 x 4mm² terminals commoned internally (Grey)	1SNA115409R2600	
MB4/6.L10	10 x 4mm² terminals commoned internally (Grey)	1SNA115412R0000	



MB6/8.L5	5 x 6mm² terminals commoned internally (Grey)	1SNA115416R0400	
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MB10/10.L2	2 x 10mm² terminals commoned internally (Grey)	1SNA115328R2300	
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MB70/10.L4	1 x 70mm² stud + 4 x 10mm² terminals commoned internally (grey)	1SNA115336R1300	
MB70/10.L6	1 x 70mm² stud + 6 x 10mm² terminals commoned internally (grey)	1SNA115337R1400	
MB70/10.L8	1 x 70mm² stud + 8 x 10mm² terminals commoned internally (grey)	1SNA115338R2500	



BRU80A	80A distribution block (light grey)	1SNA356208R2500	
BRU125A	125A distribution block (light grey)	1SNA356204R1100	
BRU160A	160A distribution block (light grey)	1SNA356200R2100	
BRU175A	175A distribution block (light grey)	1SNA356212R0000	
BRU250A	250A distribution block (light grey)	1SNA179657R1500	
BRU400A	400A distribution block (light grey)	1SNA179650R2200	

BRTC125A	125A four pole distribution block (light grey)	1SNA356211R0700	
BRT80A	80A four pole distribution block (black)	1SNA179534R2200	
BRT125A	125A four pole distribution block (black)	1SNA179535R2300	
BRT160A	160A four pole distribution block (black)	1SNA179892R2200	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
B016/5	16 x 5mm busbar to electrically connect two BRU160A together	1SNA356201R1600	



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# Terminal blocks

## General accessories



6

### Din Rails

		Product Hierarchy 300002	
Type	Description	Order Code	Price
PR30	DIN 3 (TS35) zinc plated, top hat shallow slotted din rail - 2 metres	1SNA173220R0500	
PR3	DIN 3 (TS35) zinc plated, top hat shallow solid din rail - 2 metres	1SNA174300R1700	
PR3.G2	DIN 3 (TS35) galvanised steel, top hat shallow solid din rail - 2 metres	1SNA164800R0300	
PR50	DIN 3 (TS35) zinc plated, top hat deep slotted din rail - 2 metres	1SNA178529R0400	
PR5	DIN 3 (TS35) zinc plated, top hat deep solid din rail - 2 metres	1SNA168700R2200	
PR4	DIN 3 (EN50022) zinc plated, top hat deep solid din rail - 2 metres	1SNA168500R1200	
PR1.Z2	DIN 1 (TS32) zinc plated, "G" rail shallow solid din rail - 2 metres	1SNA163050R0400	
PR1.A2	DIN 1 (TS32) aluminium, "G" rail shallow solid din rail - 3 metres	1SNA167120R2300	
PR2	EN50045 zinc plated, 15mm symmetrical slotted rail - 2 metres	1SNA164600R1200	
PRH2R	NFC93461 solid reinforced rail - 2 metres	1SNA163350R1500	

EM45	45° rail offset bracket	1SNA008521R2600	
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### End Stops

BADL	Screwless end stop for DIN 3 rail (light grey)	1SNA399903R0200	
BAM2	Screwed end stop for DIN 3 rail (grey)	1SNA206351R1600	
BAMH	Tall Screwed end stop for DIN 1 & 3 rail (grey)	1SNA114836R0000	
BADH	Tall Screwed end stop for DIN 3 rail (grey)	1SNA116900R2700	
BADRL	Screwless end stop for DIN 2 rail (light grey)	1SNA199420R2100	
BAR	Screwless end stop for DIN 1 rail (beige)	1SNA164519R2400	

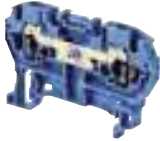


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# Terminal blocks

## Spring clamp terminal blocks



### 1.5mm<sup>2</sup> Terminal Blocks 1in 1out

		Product Hierarchy 300002	
Type	Description	Order Code	Price
D1.5/4.2L	1.5mm feed through spring clamp terminal (Grey)	29037112	
D1.5/4.P2L	1.5mm feed through spring clamp terminal (Earth) Green / Yellow	29037922	

### Accessories

		Product Hierarchy 300002 & 300008	
Type	Description	Order Code	Price
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Grey)	29106124	
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Orange)	29106225	
SCD5.2L	Seperator for 1.5-4.0mm spring clamp terminals (Orange)	29135204	
SCD5.2L	Seperator for 1.5-4.0mm spring clamp terminals (Grey)	29135103	



### 1.5mm<sup>2</sup> Terminal Blocks 2in 2out

		Product Hierarchy 300002 & 300005	
Type	Description	Order Code	Price
D1.5/4.4L	1.5mm feed through spring clamp terminal (Grey)	29038105	
D1.5/4.4L	1.5mm feed through spring clamp terminal, (Blue)	29038307	
D1.5/4.P4L	1.5mm feed through spring clamp terminal (Earth) Green / Yellow	29038915	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED5.4L	End section for 1.5mm spring clamp terminals (Grey)	29104120	

6



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# Terminal blocks

## Spring clamp terminal blocks



### 2.5mm<sup>2</sup> Terminal Blocks 1in 1out

		Product Hierarchy 300005	
Type	Description	Order Code	Price
D2.5/5.2L	2.5mm feed through spring terminal (Grey)	029002127	
D2.5/5.N.2L	2.5mm feed through spring terminal, (Blue)	029002321	
D2.5/5.P2L	2.5mm feed through spring terminal, Earth (Green/Yellow)	029002907	

### Accessories

		Product Hierarchy 300008 - 300002	
Type	Description	Order Code	Price
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Grey)	029106124	
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Orange)	029106225	

SCD5.2L	Seperator for 1.5-4.0mm spring clamp terminals (Orange)	029135204	
SCD5.2L	Seperator for 1.5-4.0mm spring clamp terminals (Grey)	029135103	

BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	

6

### 2.5mm<sup>2</sup> Terminal Blocks 1in 2out

		Product Hierarchy 300005	
Type	Description	Order Code	Price
D2.5/5.3L	2.5mm feed through spring terminal (Grey)	029003121	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED5.3L	End section for 2.5mm spring clamp terminals (Grey)	029106124	

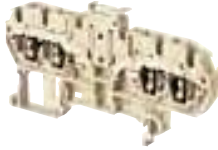
BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	



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# Terminal blocks

## Spring clamp terminal blocks



### 2.5mm<sup>2</sup> Terminal Blocks 2in 2out

**Product Hierarchy**  
300005

Type	Description	Order Code	Price
D2.5/5.4L	2.5mm feed through spring terminal (Grey)	029001125	
D2.5/5.N.4L	2.5mm feed through spring terminal (Blue)	029001327	
D2.5/5.P4L	2.5mm feed through spring terminal Earth (Green / Yellow + C30)	029001905	
D2.5/5.2L.2L	2.5mm feed through spring terminal (Grey) (2 Independent circuits )	029000104	

### Accessories

**Product Hierarchy**  
300008

Type	Description	Order Code	Price
FED5.4L	End section for 2.5mm spring clamp terminals (Grey)	029104120	
BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	



### 2.5mm<sup>2</sup> Terminal Blocks Double Deck

**Product Hierarchy**  
300005

Type	Description	Order Code	Price
D2.5/5.D2.L	2.5mm feed through double deck spring terminal (Grey)	029016100	

### Accessories

**Product Hierarchy**  
300008

Type	Description	Order Code	Price
FED5.D.L	End section for 2.5mm double deck spring clamp terminals (Grey)	029144126	
BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	



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# Terminal blocks

## Spring clamp terminal blocks



### 2.5mm<sup>2</sup> Miniblock Terminals

		Product Hierarchy 300005	
Type	Description	Order Code	Price
DR2.5/5.2L	2.5mm feed through miniblock spring terminal (Grey)	029020111	
DR2.5/5.2L	2.5mm feed through miniblock spring terminal (Orange)	029020212	
DR2.5/10.P4L	2.5mm (4 spring) feed through miniblock terminal (Earth) Green / Yellow	029021912	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED1.L	End section for 2.5mm miniblock terminal (Grey)	029130102	
BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	



### 2.5mm<sup>2</sup> Terminal Block for Sensor & Actuators

		Product Hierarchy 300005	
Type	Description	Order Code	Price
D2.5/5 C3.L	2.5mm <sup>2</sup> Terminal block for sensors / actuators	029035021	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED5.C3.L	End section for D2.5/5 C3.L	029035825	
BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	

6



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# Terminal blocks

## Spring clamp terminal blocks



### 2.5mm<sup>2</sup> Terminal Blocks 1in 1out

Product Hierarchy 300005

Type	Description	Order Code	Price
D2.5/5.2L	2.5mm feed through spring terminal (Grey)	029104120	
D2.5/5.N.2L	2.5mm feed through spring terminal, (Blue)	029002321	
D2.5/5.P2L	2.5mm feed through spring terminal, Earth (Green/Yellow)	029002907	

### Accessories

Product Hierarchy 300002 & 300008

Type	Description	Order Code	Price
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Grey)	029106124	
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Orange)	029106225	

SCD5.2L	Seperator for 1.5-4.0mm spring clamp terminals (Orange)	029135204	
SCD5.2L	Seperator for 1.5-4.0mm spring clamp terminals (Grey)	029135103	

BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	

### 2.5mm<sup>2</sup> Terminal Blocks 1in 2out

Product Hierarchy 300005

Type	Description	Order Code	Price
D2.5/5.3L	2.5mm feed through spring terminal (Grey)	029003121	

### Accessories

Product Hierarchy 300008

Type	Description	Order Code	Price
FED5.3L	End section for 2.5mm spring clamp terminals (Grey)	029106124	

BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	

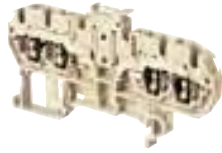
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# Terminal blocks

## Spring clamp terminal blocks



### 4.0mm<sup>2</sup> Terminal Blocks 2in 2out

		Product Hierarchy 300005	
Type	Description	Order Code	Price
D4/6.4L	4.0mm feed through spring clamp terminal (Grey)	029041006	
D4/6.4L	4.0mm feed through spring clamp terminal, (Blue)	029041224	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED6.4L	End section for 1.5-4.0mm spring clamp terminals (Grey)	029169626	
BJDL6.2	Jumper bar 2 Way (IP20)	029112824	
BJDL6.3	Jumper bar 3 Way (IP20)	029112925	

### 6.0mm<sup>2</sup> Terminal Blocks 1in 1out



		Product Hierarchy 300005	
Type	Description	Order Code	Price
D6/8.2L	6.0mm feed through spring clamp terminal (Grey)	029008124	
D6/8.N.2L	6.0mm feed through spring clamp terminal, (Blue)	029008326	
D6/8.P2L	6.0mm feed through spring clamp terminal (Earth) Green / Yellow	029008904	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED8.2L	End section for 6.0mm spring clamp terminals (Grey)	029116125	
BJDL8.2	Jumper bar 2 Way (IP20)	029112216	

### 10mm<sup>2</sup> Terminal Blocks 1in 1out



		Product Hierarchy 300005	
Type	Description	Order Code	Price
D10/10.2L	10.0mm feed through spring clamp terminal (Grey)	029029103	
D10/10.N.2L	10.0mm feed through spring clamp terminal, (Blue)	029029305	
D10/10.P2L	10.0mm feed through spring clamp terminal (Earth) Green / Yellow	029029913	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED10.2L	End section for 10.0mm spring clamp terminals (Grey)	029029913	2.65
BJDL10.2	Jumper bar 2 Way (IP20)	029147225	1.18



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# Terminal blocks

## Spring clamp terminal blocks



### 16mm² Terminal Blocks 1in 1out

		Product Hierarchy 300005	
Type	Description	Order Code	Price
D16/12.2L	16.0mm feed through spring clamp terminal (Grey)	039958127	
D16/12.N.2L	16.0mm feed through spring clamp terminal, (Blue)	039958220	
D16/12.P.2L	16.0mm feed through spring clamp terminal (Earth) Green / Yellow	039958422	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED12.2L	End section for 16.0mm spring clamp terminals (Grey)	039957104	

### 35mm² Terminal Blocks 1in 1out

		Product Hierarchy 300005	
Type	Description	Order Code	Price
D35/16.2L	35.0mm feed through spring clamp terminal (Grey)	039961702	
D35/16.N.2L	35.0mm feed through spring clamp terminal, (Blue)	039961813	
D35/16.P.2L	35.0mm feed through spring clamp terminal (Earth) Green / Yellow	039962011	

### 2.5mm² Disconnect (switch) Terminal Blocks 1in 1out

		Product Hierarchy 300005	
Type	Description	Order Code	Price
D2.5/5.SNBT.2L	2.5mm² disconnect terminal (Grey body, short orange blade)	029004103	

6

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Grey)	029106124	
FED5.2L	End section for 1.5-4.0mm spring clamp terminals (Orange)	029106225	

SCD5.2L	Seperator for 1.5-4.0mm spring clamp terminals (Orange)	029135204	
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BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	



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# Terminal blocks

## Spring clamp terminal blocks

2.5mm <sup>2</sup> Disconnect (switch) Terminal Blocks 2in 2out		Product Hierarchy 300005	
Type	Description	Order Code	Price
D2.5/5.SNBT.4L	2.5mm <sup>2</sup> disconnect terminal (Grey body, short grey blade)	029013324	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED5.4L	End section for 2.5mm spring clamp terminals (Grey)	029104120	

BJDL5.2	Jumper bar 2 Way (IP20)	029110223	
BJDL5.3	Jumper bar 3 Way (IP20)	029110324	
BJDL5.4	Jumper bar 4 Way (IP20)	029110425	
BJDL5.5	Jumper bar 5 Way (IP20)	029110526	
BJDL5.10	Jumper bar 10 Way (IP20)	029111026	

2.5mm Fuse terminals		Product Hierarchy 300005	
Type	Description	Order Code	Price
D2.5/8.SFT.2L	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey)	029009126	
D2.5/8.SFDT.2L	Fuse terminal (flip top) for 5x20, 5x25mm fuse (Grey) with test socket & fuse blown indicator (24v)	029009421	

Accessories		Product Hierarchy 300008	
Type	Description	Order Code	Price
FED8SF.2L	End section for 2.5mm spring clamp terminals (Grey)	029113117	
BJDL8.2	Jumper bar 2 Way (IP20)	029112216	

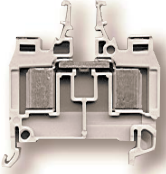
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# Terminal blocks

## ADO terminals



### 1mm² ADO Feed Through Terminal Blocks

#### Product Hierarchy 300006

Type	Description	Order Code	Price
D1/5.ADO	1mm² feed through terminal, ADO-ADO (Grey)	1SNA199563R2400	
D1/5.PADO	1mm² feed through terminal, Ground, ADO-ADO (Green / Yellow)	1SNA399031R2200	
D1/5.ADO	1mm² feed through terminal, ADO-ADO (Orange)	1SNA199564R2500	

### Accessories

#### Product Hierarchy 300008

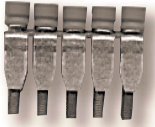
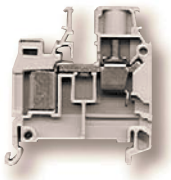
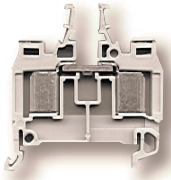
Type	Description	Order Code	Price
D2,5/5.ADO	1mm² ADO - 2.5mm² screw clamp feed through terminal (Grey)	1SNA199554R2300	
FEMAD3	End section (Grey)	1SNA199341R0500	
FEMAD3	End section (Yellow)	1SNA199343R0700	
FC2	Test Plug 2mm diameter	1SNA007865R2600	
BJMI5	Jumper bar - 2 pole (IP20)	1SNA176278R1600	
BJMI5	Jumper bar - 3 pole (IP20)	1SNA176279R1700	
BJMI5	Jumper bar - 4 pole (IP20)	1SNA176280R0500	
BJMI5	Jumper bar - 5 pole (IP20)	1SNA176281R2200	
BJMI5	Jumper bar - 10 pole (IP20)	1SNA176282R2300	
EL6	Connector Plate to link two jumper bars together	1SNA173627R2100	
CBM5	Screen Bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen Bar 0.8mm thickness	1SNA178746R1500	



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# Terminal blocks

## ADO terminals



6

### 1.5mm<sup>2</sup> ADO Feed Through Terminal Blocks

		Product Hierarchy 300006	
Type	Description	Order Code	Price
D1,5/6.ADO	1.5mm <sup>2</sup> ADO feed through terminal (Grey)	1SNA199051R2600	
D1,5/6.N.ADO	1.5mm <sup>2</sup> ADO feed through terminal (Blue)	1SNA199053R2000	
D1,5/6.P.ADO	1.5mm <sup>2</sup> ADO feed through terminal, Ground (Green / Yellow)	1SNA199098R2600	
D1,5/6.ADO	1.5mm <sup>2</sup> ADO feed through terminal (Red)	1SNA199081R1500	
D4/6.ADO	1.5mm <sup>2</sup> ADO - 4mm <sup>2</sup> screw clamp feed through terminal (Grey)	1SNA199034R1500	

D4/6.N.ADO	1.5mm <sup>2</sup> ADO - 4mm <sup>2</sup> screw clamp feed through terminal (Blue)	1SNA199036R1700	
D4/6.P.ADO	1.5mm <sup>2</sup> ADO - 4mm <sup>2</sup> screw clamp feed through terminal, Ground (Green / Yellow)	1SNA199050R0100	
D4/6.ADO	1.5mm <sup>2</sup> ADO - 4mm <sup>2</sup> screw clamp feed through terminal (Orange)	1SNA199035R1600	
D4/6.ADO	1.5mm <sup>2</sup> ADO - 4mm <sup>2</sup> screw clamp feed through terminal (Red)	1SNA199069R0000	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEMAD3	End section for 1-4mm ADO-ADO terminals (Grey)	1SNA199341R0500	
FEMAD3	End section for 1-4mm ADO-ADO terminals (Yellow)	1SNA199343R0700	
FEDAD1	End section for 1-4mm ADO - 2.5 - 4mm screw clamp terminals (Grey)	1SNA199336R2000	
FEDAD1	End section for 1-4mm ADO - 2.5 - 4mm screw clamp terminals (Yellow)	1SNA199339R0300	
FC2	Test Plug 2mm diameter	1SNA007865R2600	

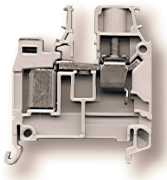
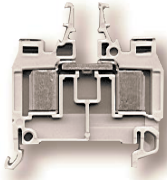
BJMI6	Jumper bar - 2 pole (IP20)	1SNA176663R0000	
BJMI6	Jumper bar - 3 pole (IP20)	1SNA176664R0100	
BJMI6	Jumper bar - 4 pole (IP20)	1SNA176665R0200	
BJMI6	Jumper bar - 5 pole (IP20)	1SNA176666R0300	
BJMI6	Jumper bar - 10 pole (IP20)	1SNA176667R0400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	

CBM5	Screen Bar 0.5mm thickness	1SNA178745R1400	
CBM8	Screen Bar 0.8mm thickness	1SNA178746R1500	

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# Terminal blocks

## ADO terminals



### 2.5mm² ADO Feed Through Terminal Blocks

#### Product Hierarchy 300006

Type	Description	Order Code	Price
D2,5/8.ADO	2.5mm² ADO feed through terminal (Grey)	1SNA199059R0600	
D2,5/8.ADO	2.5mm² ADO feed through terminal (Blue)	1SNA199061R2000	
D2,5/8.PADO	2.5mm² ADO feed through terminal, Ground (Green / Yellow)	1SNA199091R1700	
D2,5/8.ADO	2.5mm² ADO feed through terminal (Black)	1SNA199089R2500	

D6/8.ADO	2.5mm² ADO - 6mm² screw clamp feed through terminal (Grey)	1SNA199042R2500	
D6/8.PADO	2.5mm² ADO - 6mm² screw clamp feed through terminal, Ground (Green / Yellow)	1SNA199118R2600	
D6/8.ADO	2.5mm² ADO - 6mm² screw clamp feed through terminal (Orange)	1SNA199043R2600	
D6/8.ADO	2.5mm² ADO - 6mm² screw clamp feed through terminal (Black)	1SNA199077R2000	
D6/8.1.ADO	2.5mm² ADO - 6mm² screw clamp feed through terminal with partition (Grey)	1SNA199046R2100	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEMAD3	End section for 1-4mm ADO-ADO terminals (Grey)	1SNA199341R0500	
FEMAD3	End section for 1-4mm ADO-ADO terminals (Yellow)	1SNA199343R0700	
FEDAD1	End section for 1-4mm ADO - 2.5 - 6mm screw clamp terminals (Grey)	1SNA199336R2000	
FEDAD1	End section for 1-4mm ADO - 2.5 - 6mm screw clamp terminals (Yellow)	1SNA199339R0300	

BJMI8	Jumper bar - 2 pole (IP20)	1SNA176669R1600	
BJMI8	Jumper bar - 3 pole (IP20)	1SNA176670R1300	
BJMI8	Jumper bar - 4 pole (IP20)	1SNA176671R0000	
BJMI8	Jumper bar - 5 pole (IP20)	1SNA176672R0100	
BJMI8	Jumper bar - 10 pole (IP20)	1SNA176673R0200	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	

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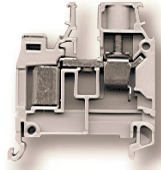


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# Terminal blocks

## ADO terminals



### 4mm² ADO Feed Through Terminal Blocks

		Product Hierarchy 300006	
Type	Description	Order Code	Price
D4/8.ADO	4mm² ADO feed through terminal (Grey)	1SNA399244R1400	
D4/8.ADO	4mm² ADO feed through terminal (Blue)	1SNA399318R1600	
D6/8.ADO3	4mm² ADO - 6mm² screw clamp feed through terminal (Grey)	1SNA399245R1500	

### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEMAD3	End section for 1-4mm ADO-ADO terminals (Grey)	1SNA199341R0500	
FEMAD3	End section for 1-4mm ADO-ADO terminals (Yellow)	1SNA199343R0700	
BJMI8	Jumper bar - 2 pole (IP20)	1SNA176669R1600	
BJMI8	Jumper bar - 3 pole (IP20)	1SNA176670R1300	
BJMI8	Jumper bar - 4 pole (IP20)	1SNA176671R0000	
BJMI8	Jumper bar - 5 pole (IP20)	1SNA176672R0100	
BJMI8	Jumper bar - 10 pole (IP20)	1SNA176673R0200	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	



6



### ADO Disconnect Terminal Blocks

		Product Hierarchy 300006	
Type	Description	Order Code	Price
D1,5/6.SNT2.ADO	1.5mm² ADO - ADO blade disconnect terminal with 2mm test sockets (Grey)	1SNA199144R2000	
D2,5/8.SNT2.ADO	2.5mm² ADO - ADO blade disconnect terminal with 2mm test sockets (Grey)	1SNA199231R2700	
D4/6.SN.ADO	1.5mm² ADO - 4mm² screw clamp blade disconnect terminal (Grey)	1SNA199231R2700	
D4/8.SN.ADO	2.5mm² ADO - 4mm² screw clamp blade disconnect terminal (Grey)	1SNA199137R1100	



### Accessories

		Product Hierarchy 300008	
Type	Description	Order Code	Price
FEDAD5	End section for 1.5-2.5mm ADO-ADO blade disconnect terminals (Grey)	1SNA199354R0200	
FEDAD4	End section for 1.5-2.5mm ADO- 2.5mm² screw clamp blade disconnect terminals (Grey)	1SNA199352R0000	
BJADO6.4	Push in jumper bar, 4 pole for 6mm pitch ADO blade disconnect terminals (Orange)	1SNA205976R0000	
BJADO6.20	Push in jumper bar, 20 pole for 6mm pitch ADO terminals (Orange)	1SNA205992R2100	



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# Terminal blocks

## ADO terminals



### ADO Fuse Terminal Blocks

#### Product Hierarchy 300006

Type	Description	Order Code	Price
D1,5/8.SFT.ADO	1.5mm <sup>2</sup> ADO - ADO 5 x 20 / 5 x 25mm flip top fuse terminal (Grey)	1SNA199208R1100	
D2,5/8.SFT.ADO2	2.5mm <sup>2</sup> ADO - ADO 5 x 20 / 5 x 25mm flip top fuse terminal (Grey)	1SNA199184R1100	
D4/8.SF.I.ADO	1.5mm <sup>2</sup> ADO - 4mm <sup>2</sup> screw clamp 5 x 20 / 5 x 25mm flip top fuse terminal (Grey)	1SNA399785R0300	

### Accessories

#### Product Hierarchy 300008

Type	Description	Order Code	Price
FEDAD7	End section for ADO - ADO fuse terminals (Grey)	1SNA199382R2700	
FEDAD10	End section for ADO - screw clamp fuse terminals (Grey)	1SNA399758R2700	
TGA8	Assembly rod, 2 pole, to link flip top fuse carriers M4/8.SF M4/8.SN series.	1SNA168672R1100	
ANT	Assembly ring locks TGA8 in place on flip top fuse carriers M4/8.SF M4/8.SN series.	1SNA168675R1400	
FU520	5 x 20mm 250V 0.5A fuse	1SNA008288R1500	
FU520	5 x 20mm 250V 1A fuse	1SNA008290R1300	
FU520	5 x 20mm 250V 2A fuse	1SNA008291R0000	
FU520	5 x 20mm 250V 3.15A fuse	1SNA008289R1600	
FU520	5 x 20mm 250V 5A fuse	1SNA008292R0100	
FU525	5 x 25mm 250V 2.5A fuse	1SNA167548R0400	
FU525	5 x 25mm 250V 4A fuse	1SNA167549R0500	
CN5	5 x 25mm neutral bar	1SNA179371R1600	



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# Terminal blocks

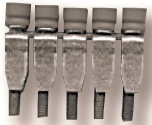
## ADO terminals



### ADO Double Deck Terminal Blocks

Product Hierarchy 300006	
Order Code	Price
1SNA199242R0200	

Type	Description
D4/6.D2.ADO	1.5mm <sup>2</sup> ADO - 4mm <sup>2</sup> screw clamp double deck terminal (Grey)



### Accessories

Product Hierarchy 300008	
Order Code	Price
1SNA199242R0200	

Type	Description
FED2AD1	End section for ADO - Screw clamp double deck terminals (Grey)

BJMI6	Jumper bar - 2 pole (IP20)	1SNA176663R0000	
BJMI6	Jumper bar - 3 pole (IP20)	1SNA176664R0100	
BJMI6	Jumper bar - 4 pole (IP20)	1SNA176665R0200	
BJMI6	Jumper bar - 5 pole (IP20)	1SNA176666R0300	
BJMI6	Jumper bar - 10 pole (IP20)	1SNA176667R0400	
EL6	Connector plate for linking two jumper bars together	1SNA173627R2100	



BJADO6.4	Push in jumper bar, 4 pole for 6mm pitch ADO double deck terminals (Orange)	1SNA205976R0000	
BJADO6.20	Push in jumper bar, 20 pole for 6mm pitch ADO double deck terminals (Orange)	1SNA205992R2100	

PC6	Comb jumper bar - 2 pole for ADO double deck terminal	1SNA113546R1400	
PC6	Comb jumper bar - 10 pole for ADO double deck terminal	1SNA113548R2600	

6



### General ADO Accessories - Tools

Product Hierarchy 300006	
Order Code	Price
1SNA178944R0400	
1SNA179466R0600	
1SNA205284R0300	

Type	Description
OUPAD	Semi automatic ADO hand tool
OUMAD	ADO hand tool
OUTA	Replacement head for OUPAD semi automatic hand tool

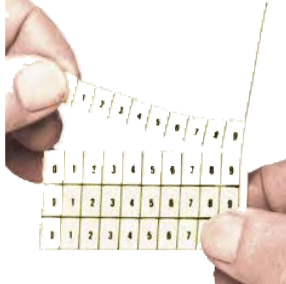


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# Terminal blocks

## Marker cards




### RC410 Marker Cards

		Product Hierarchy 300008	
Type	Description	Order Code	Price
RC410	RC410 Marker Card - BLANK	1SNA229000R1500	

### RC55 Marker Cards

RC55	RC55 Marker Card - Blank	1SNA230000R1200	
RC55	RC55 Marker Card - Horizontal 10 x [0-9]	1SNA230001R0700	
RC55	RC55 Marker Card - Horizontal 10 x [1-10]	1SNA230002R0000	
RC55	RC55 Marker Card - Horizontal 10 x [1-100]	1SNA230030R0700	

### RC510 Marker Cards

RC510	RC510 Marker Card - BLANK	1SNA231000R0700	
RC510	RC510 Marker Card - Horizontal 10 x [1-10]	1SNA231002R2500	
RC510	RC510 Marker Card - Horizontal 10 x [11-20]	1SNA231003R2600	
RC510	RC510 Marker Card - Horizontal 10 x [21-30]	1SNA231004R2700	
RC510	RC510 Marker Card - Horizontal 10 x [31-40]	1SNA231005R2000	
RC510	RC510 Marker Card - Horizontal 10 x [41-50]	1SNA231006R2100	
RC510	RC510 Marker Card - Horizontal 10 x [51-60]	1SNA231007R2200	
RC510	RC510 Marker Card - Horizontal 10 x [61-70]	1SNA231008R0300	
RC510	RC510 Marker Card - Horizontal 10 x [71-80]	1SNA231009R0400	
RC510	RC510 Marker Card - Horizontal 10 x [81-90]	1SNA231010R2000	
RC510	RC510 Marker Card - Horizontal 10 x [91-100]	1SNA231011R1500	
RC510	RC510 Marker Card - Horizontal [1-100]	1SNA231030R2400	
RC510	RC510 Marker Card - Horizontal [101-200]	1SNA231031R1100	
RC510	RC510 Marker Card - Horizontal [301-400]	1SNA231033R1300	
RC510	RC510 Marker Card - Horizontal [401-500]	1SNA231034R1400	
RC510	RC510 Marker Card - Vertical 10 x [1-10]	1SNA231041R2300	
RC510	RC510 Marker Card - Vertical 10 x [11-20]	1SNA231042R2400	
RC510	RC510 Marker Card - Vertical 10 x [21-30]	1SNA231043R2500	
RC510	RC510 Marker Card - Vertical [1-100]	1SNA231060R0200	
RC510	RC510 Marker Card - Red Text [1-100]	1SNA231074R2400	
RC510	RC510 Marker Card - Horizontal 100 x 	1SNA231115R1200	

### RC65 Marker Cards

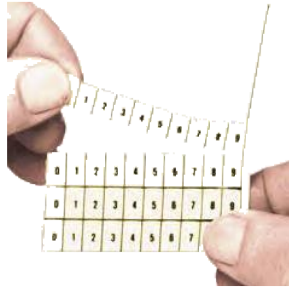
RC65	RC65 Marker Card - BLANK	1SNA232000R0000	
RC65	RC65 Marker Card - Horizontal 10 x [1-10]	1SNA232002R2600	
RC65	RC65 Marker Card - Horizontal 10 x [11-20]	1SNA232003R2700	
RC65	RC65 Marker Card - Horizontal 10 x [21-30]	1SNA232004R2000	
RC65	RC65 Marker Card - Horizontal [1-100]	1SNA232030R2500	
RC65	RC65 Marker Card - Horizontal [101-200]	1SNA232031R1200	



Full range of product and technical information place this part number in a search engine and download  
1SNC160001C0207

# Terminal blocks

## Marker cards



### RC610 Marker Cards

		Product Hierarchy 300008	
Type	Description	Order Code	Price
RC610	RC610 Marker Card - BLANK	1SNA233000R0100	
RC610	RC610 Marker Card - Horizontal 10 x [1-10]	1SNA233002R2700	
RC610	RC610 Marker Card - Horizontal 10 x [11-20]	1SNA233003R2000	
RC610	RC610 Marker Card - Horizontal 10 x [21-30]	1SNA233004R2100	
RC610	RC610 Marker Card - Horizontal 10 x [31-40]	1SNA233005R2200	
RC610	RC610 Marker Card - Horizontal 10 x [41-50]	1SNA233006R2300	
RC610	RC610 Marker Card - Horizontal 10 x [51-60]	1SNA233007R2400	
RC610	RC610 Marker Card - Horizontal 10 x [61-70]	1SNA233008R0500	
RC610	RC610 Marker Card - Horizontal 10 x [71-80]	1SNA233009R0600	
RC610	RC610 Marker Card - Horizontal 10 x [81-90]	1SNA233010R2200	
RC610	RC610 Marker Card - Horizontal 10 x [91-100]	1SNA233011R1700	
RC610	RC610 Marker Card - Horizontal 10 x [101-110]	1SNA233012R1000	
RC610	RC610 Marker Card - Horizontal 10 x [111-120]	1SNA233013R1100	
RC610	RC610 Marker Card - Horizontal 10 x [121-130]	1SNA233014R1200	
RC610	RC610 Marker Card - Horizontal 10 x [131-140]	1SNA233015R1300	
RC610	RC610 Marker Card - Horizontal 10 x [141-150]	1SNA233016R1400	
RC610	RC610 Marker Card - Horizontal 10 x [151-160]	1SNA233017R1500	
RC610	RC610 Marker Card - Horizontal 10 x [161-170]	1SNA233018R2600	
RC610	RC610 Marker Card - Horizontal [1-100]	1SNA233030R2600	
RC610	RC610 Marker Card - Horizontal [101-200]	1SNA233031R1300	
RC610	RC610 Marker Card - Horizontal [201-300]	1SNA233032R1400	
RC610	RC610 Marker Card - Horizontal [301-400]	1SNA233033R1500	
RC610	RC610 Marker Card - Horizontal [401-500]	1SNA233034R1600	
RC610	RC610 Marker Card - Horizontal [501-600]	1SNA233035R1700	
RC610	RC610 Marker Card - Vertical 10 x [1-10]	1SNA233041R2500	
RC610	RC610 Marker Card - Vertical 10 x [11-20]	1SNA233042R2600	
RC610	RC610 Marker Card - Vertical 10 x [21-30]	1SNA233043R2700	
RC610	RC610 Marker Card - Vertical 10 x [41-50]	1SNA233045R2100	
RC610	RC610 Marker Card - Vertical 10 x [61-70]	1SNA233047R2300	
RC610	RC610 Marker Card - Vertical [1-100]	1SNA233060R0400	
RC610	RC610 Marker Card - Vertical [101-200]	1SNA233061R2100	
RC610	RC610 Marker Card - Vertical [201-300,]	1SNA233062R2200	
RC610	RC610 Marker Card - Horizontal 20 x [L1 L2 L3 N PE]	1SNA233131R1400	
RC610	RC610 Marker Card - Horizontal 2 x [1-50]	1SNA233141R2600	

6

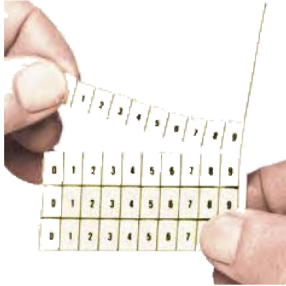


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# Terminal blocks

## Marker cards



### RC610 Marker Cards

		Product Hierarchy 300008	
Type	Description	Order Code	Price
RC810	RC810 Marker Card - BLANK	1SNA234000R0200	
RC810	RC810 Marker Card - Horizontal 10 x [1-10]	1SNA234002R2000	
RC810	RC810 Marker Card - Horizontal 10 x [11-20]	1SNA234003R2100	
RC810	RC810 Marker Card - Horizontal 10 x [21-30]	1SNA234004R2200	
RC810	RC810 Marker Card - Horizontal 10 x [31-40]	1SNA234005R2300	
RC810	RC810 Marker Card - Horizontal 10 x [41-50]	1SNA234006R2400	
RC810	RC810 Marker Card - Horizontal [1-100]	1SNA234030R2700	
RC810	RC810 Marker Card - Vertical 10 x [1-10]	1SNA234041R2600	
RC810	RC810 Marker Card - Vertical 10 x [11-20]	1SNA234042R2700	
RC810	RC810 Marker Card - Vertical [1-100]	1SNA234060R0500	

### Marker Cards - General

---	Permenant Marker Pen	1SNA164386R2700	
REH3	Marker Card Red Text 22 x [1-30] & 1 x [1-20]	1SNA164695R2500	
RTM7	0.5m Strip of blank markers for Top of 6mm pitch terminals	1SNA168410R0700	
RCPEB	Sheet of 54 Markers	1SNA178430R0500	
EPR1	Sheet of 54 Clear Covers for RCPEB Markers	1SNA178431R2200	
RCCV	RCCV Card of 48 blank wire markers	1SNA235460R0400	
PETC53	Clear Holder For RCCV Markers	1SNA168741R1600	
RCT610	RCT 610 Top Marker Card - BLANK	1SNA236000R0400	
RCT810	RCT 810 Top Marker Card - BLANK	1SNA236500R0600	
RC1010	RC1010 Marker Card - BLANK	1SNA238000R1600	

6

### AMS500 Plotter Accessories

AMS PEN 0,25	0.25mm Pen for AMS500 Plotter	1SNA360100R2500	
AMS PEN 0,35	0.35mm Pen for AMS500 Plotter	1SNA360101R1200	
---	0.35mm Disposable Pen for AMS500 Plotter	1SNA360121R0500	
AMS INK	Pack of 5 ink cartridges for AMS500 Plotter	1SNA360150R2600	
AMS CLEANER	Pen Cleaner for AMS500 pens	1SNA360155R1700	



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# Jokab Safety



## Jokab Safety

- Overview ..... 7/2
- Pluto safety PLCs..... 7/4
- Vital safety controllers..... 7/7
- Tina adaptor units ..... 7/9
- Safety relays..... 7/11
- Safety light grids, curtains and scanners..... 7/18
- Stop time measurement & machine diagnosis ..... 7/30
- Sensors & switches..... 7/32
- Control devices ..... 7/41
- Emergency stop devices ..... 7/48
- Contact rails and bumpers..... 7/52
- Safety mats ..... 7/54
- Fencing systems ..... 7/56



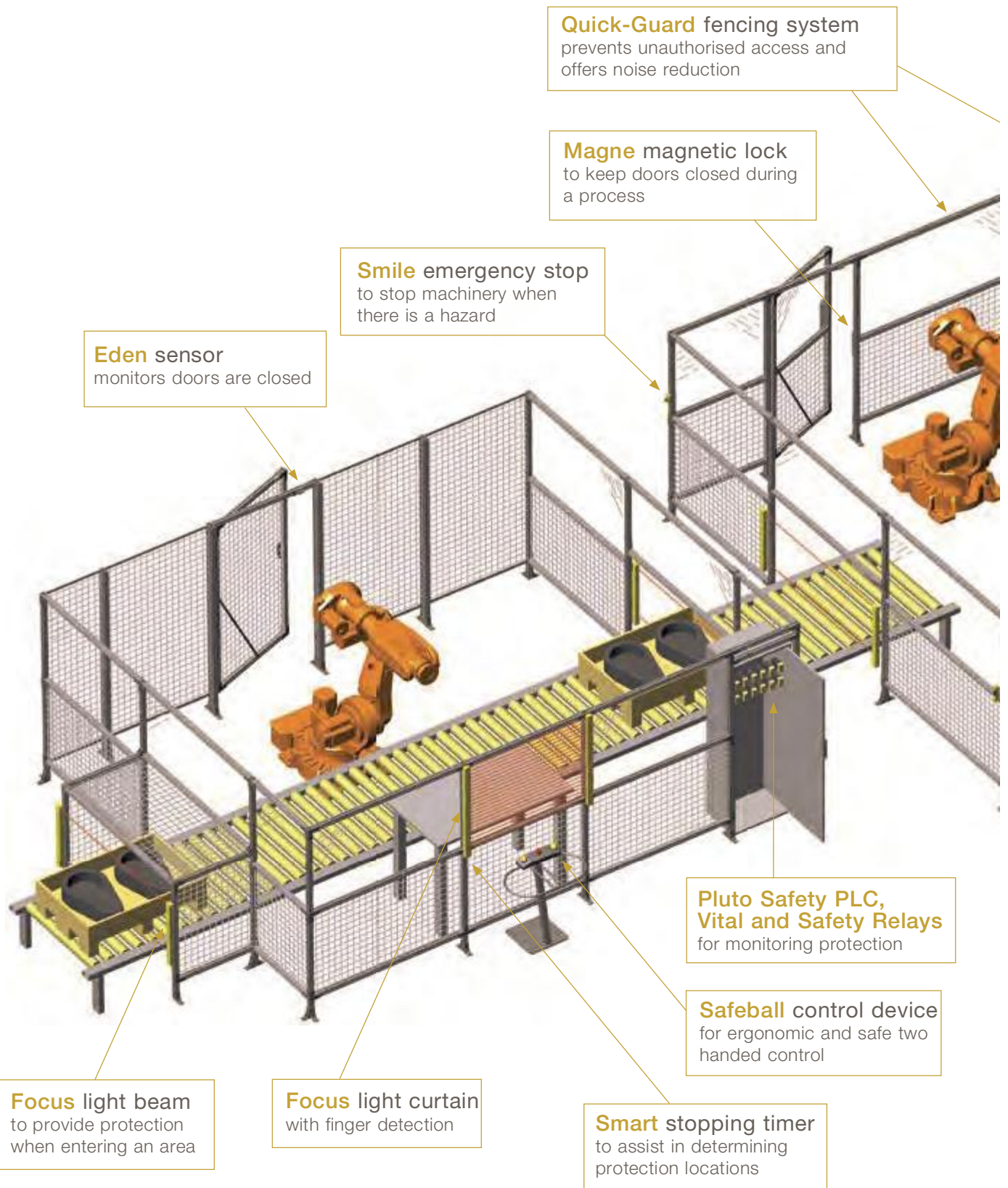
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# Jokab Safety

## Production-friendly safety systems



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**Dalton process lock**  
to keep doors closed  
during a process

**Sensitive edges**  
prevents against  
trapping injuries

**Roller doors**  
for short protection distances  
and noise reduction

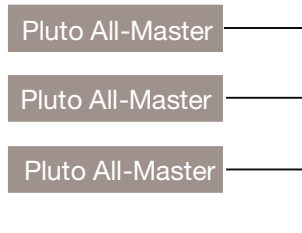
**Knox safety lock**  
ensures that doors  
are locked

Product Groups	
	<p><b>Training &amp; Advice</b> Practical application of standards and regulations, along with CE-labelling.</p>
	<p><b>Pluto Safety PLC</b> A unique All-Master safety PLC for dynamic and static safety circuits.</p>
	<p><b>Vital Safety System</b> Dynamic safety circuit for several sensors in accordance with the highest safety category.</p>
	<p><b>Tina Adapter Units</b> Transformation of static signals to dynamic safety signals, etc.</p>
	<p><b>Safety Relays</b> The market's most flexible safety relays for different protection purposes and categories.</p>
	<p><b>Stopping Time &amp; Machinery Diagnosis</b> Used for stopping time measurement, annual maintenance and for trouble shooting machinery.</p>
	<p><b>Light Curtain/Light Beam/Scanner</b> Complete range of light beams, light curtains and scanners.</p>
	<p><b>Sensors/Switches/Locks</b> Dynamic non-contact sensors, key switches and solenoid switches.</p>
	<p><b>Control Devices</b> Ergonomic three-position control units, two-handed control units and foot pedals.</p>
	<p><b>Emergency Stop Devices</b> Emergency stop devices for dynamic and static safety circuits.</p>
	<p><b>Contact Strips/Bumpers/Safety Mats</b> Sensitive edges, bumpers and safety mats.</p>
	<p><b>Fencing Systems/SafeCAD/Roller Doors</b> A stable and flexible fencing system that is easy to install.</p>

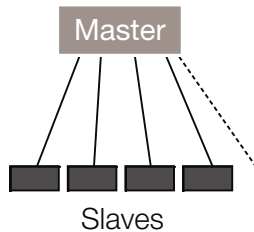
# Pluto safety PLC's

## for simplifying design and changes to safety systems

### Our solution with All-Master

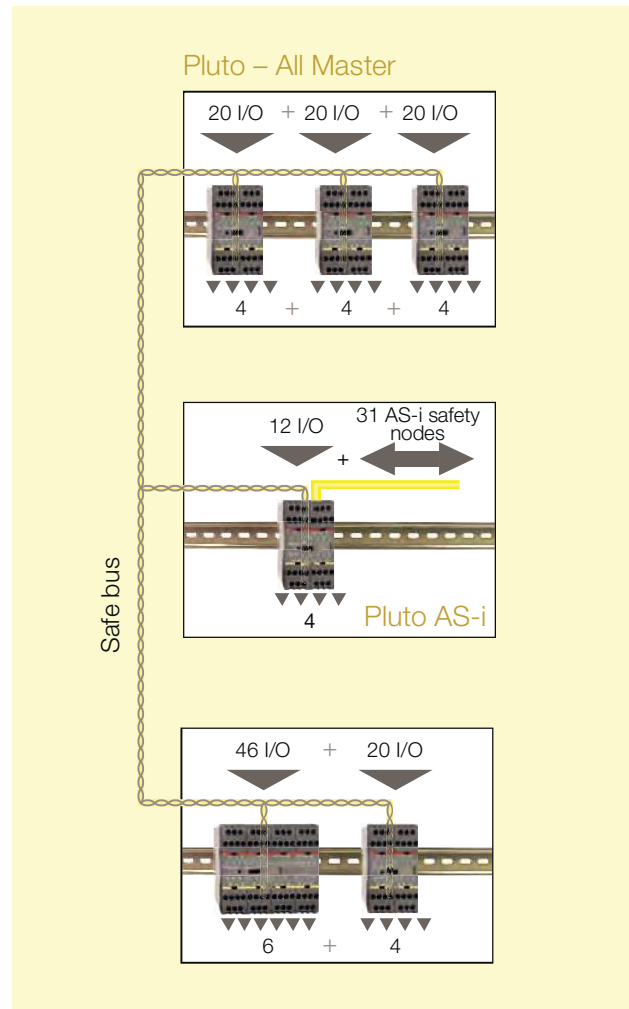


### Traditional safety PLC



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Pluto is an "All-Master" safety PLC concept, that simplifies the design of safety systems and achieves the highest safety level PL e according to EN ISO 13849-1 and SIL 3 according to EN 62061 and EN 61508. The key difference between Pluto and conventional safety PLC's is that there is no "Master-Slave" relationship between the control units connected to the safety bus. Each Pluto is a 'Master' unit and can see the other Plutos' inputs and outputs, and can thereby make decisions about its own safety environment.



This concept enables simple communication, programming and changes to the safety system. With the use of a 'Gateway' device, a Pluto can communicate with other bus systems and thereby form part of a larger network. Gateway units are available for several different bus systems, such as Profibus, CanOpen, DeviceNet, Profinet, Ethernet/IP and Modbus TCP. With a Pluto AS-i, both safety slaves and standard slaves can be handled. Pluto offers an economic solution for both single machines and for major machine systems.



# Pluto safety PLC's to supervise safety devices



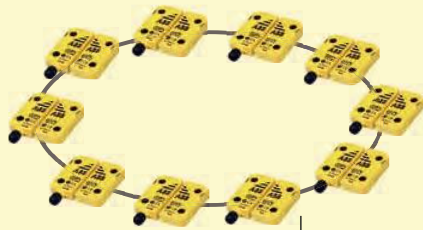
Most safety devices on the market can be connected directly to Pluto units. By using dynamic signals with sensors from ABB Jokab Safety only one input is needed to achieve the highest level of safety, compared to two inputs for other manufacturers' PLCs. It is also possible to connect up to 10 sensors in series to a single input on Pluto and still achieve the highest level of safety.

For example non-contact Eden sensors, Spot light beams and Tina emergency stop buttons can all be connected in series to a single Pluto input. Even mechanical switches can be connected to the 'dynamic' safety circuit using ABB Jokab Safety's various Tina adapters. Pluto also has IO connections that can be used as both inputs and outputs.

## to save on inputs!

### Dynamic signals

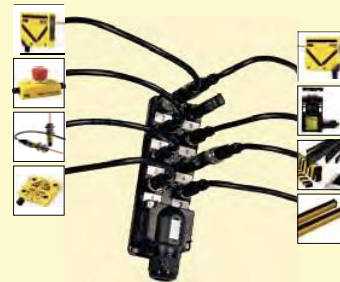
1-10 doors with one Eden per door  
PL e



One input

### Dynamic signals

1-10 sensors  
PL e



One input

### Pluto

has inputs for static and dynamic sensors. Several sensors can be connected to one dynamic input in accordance with PL e.



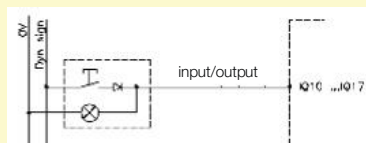
One connection

Two inputs

### IO connections

Pluto has IO connections that can be used in three ways:

- input
- output
- both input and output at the same time (e.g. for a reset button with lamp indication)



Static inputs (mechanical switches)  
2 for each door = PL e



# Pluto safety PLC's



## Technical data - general

Colour:	Grey
Operating voltage:	24V DC ±15%
Electrical insulation:	Category II in accordance with IEC 61010-1
Safety level	
EN 954-1	Cat. 4
EN ISO 13849-1	PL e/cat. 4
EN 61508	SIL 3
EN 62061	SIL 3
PFH <sub>d</sub>	
Relay output	2,00×10 <sup>-9</sup>
Transistor output	1,50×10 <sup>-9</sup>
Pluto safety bus	
Max number of Pluto units on the databus:	32
Databus type:	CAN
Databus speeds:	100, 125, 200, 250, 400, 500, 800, 1000 kb/s
Databus cable length:	Up to 600 m, 150 m at 400 kb/s

7

## Selection

Description	Part No.	Product Hierarchy 4700001	
		Order Code	Price
Pluto S20 20- I/O Non-Pluto safety bus	20-070-05	2TLA020070R0500	
Pluto B46-6 46- I/O with Pluto safety bus	20-070-17	2TLA020070R1700	
Pluto S46-6 46- I/O Non-Pluto safety bus	20-070-18	2TLA020070R1800	
Pluto A20 20- I/O Current monitoring	20-070-03	2TLA020070R0300	
Pluto B16 16- I/O Non-failsafe outputs	20-070-07	2TLA020070R0700	
Pluto B20 20- I/O with Pluto safety bus	20-070-06	2TLA020070R0600	
Pluto AS-i v2	20-070-11	2TLA020070R1100	
IDFIX-R identifier pre-programmed	20-070-20	2TLA020070R2000	
IDFIX-RW identifier programmable	20-070-21	2TLA020070R2100	
Pluto USB cable for programing	20-070-58	2TLA020070R5800	
GATE-P2 Pluto Gateway PROFIBUS-DP	20-070-70	2TLA020071R8000	
GATE-C2 Pluto Gateway CANopen	20-070-71	2TLA020071R8100	
GATE-D2 Pluto Gateway DeviceNet	20-070-72	2TLA020071R8200	
GATE-E2 Pluto Gateway Ethernet	20-070-73	2TLA020071R8300	



### Jokab Safety



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# Vital - safety controller

Control of an entire safety system based on the dynamic safety circuit



Vital is based on a single channel safety concept where multiple safety sensors can be connected in series and monitored with a single safety controller. A dynamic signal is sent from Vital through all connected sensors, and then returned to Vital which then evaluates the received signal. As each safety sensor inverts the signal, it is possible to detect short circuits or faults in any of the sensors. Vital 2 and Vital 3 are designed for use with ABB Jokab Eden sensors, Tina components and Spot light grids or similar products. Vital 2 and 3 are both safety controllers with two safe input functions and two output groups, the only difference between the two models being in the input configuration.

## Technical data - general data for Vital 1

TÜV Nord – Vital 1  
TÜV Rheinland – Vital 2 and 3



Level of safety EN ISO 13849-1 EN 62061 IEC/EN 61508-1...7 EN 954-1	PL e, category 4 SIL 3 SIL 3 Category 4	Number of sensors Max. number of Eden/Tina to Vital 1 Total max. cable length to Eden/Tina Max. number of Spot T/R to Vital Total max. cable length to Spot T/R	30 1000 m 6 pairs 600 m
PFHd	1,01x10 <sup>-8</sup>	Relay outputs NO Max switching capacity, resistive load	2 6A/250 VAC/1500 VA/150W
Power supply Vital, A1-A2 From Vital to sensors/units, B1-B2	24 VDC ±15% 24 VDC	Minimum load Contact material Mechanical life External fuse (EN 60947-5-1)	10 mA/10V AgCdO >10 <sup>7</sup> operations 6.3A or 4A slow
Dynamic safety circuit T 1 R 1	Output signal Input signal		
Reset input X1 Supply for reset input Reset current	+24VDC 30 mA max. (inrush current 300 mA during contact closure)		
Minimum contact closure time for reset	80 ms		

### Connection of S1

Even numbers of sensors (Eden + Spot T/R + Tina) require a connection between B1 and S1. S1 is not connected for odd numbers of sensors. Odd number, no connection between B1 and S1.

7

## Selection



		Product Hierarchy 4700002	
Type	Part No	Order Code	Price
Vital 2	20-070-43	2TLA020070R4300	
Vital 3	20-070-44	2TLA020070R4400	

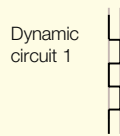
# Vital - safety controller

## Features

- Easy installation
- Flexible
- Cost effective
- A wide range of safety sensors can be connected into the circuit
- Several safe outputs
- Information output
- Outputs with time delay (Vital 2 and 3)
- Display for troubleshooting (Vital 2 and 3)

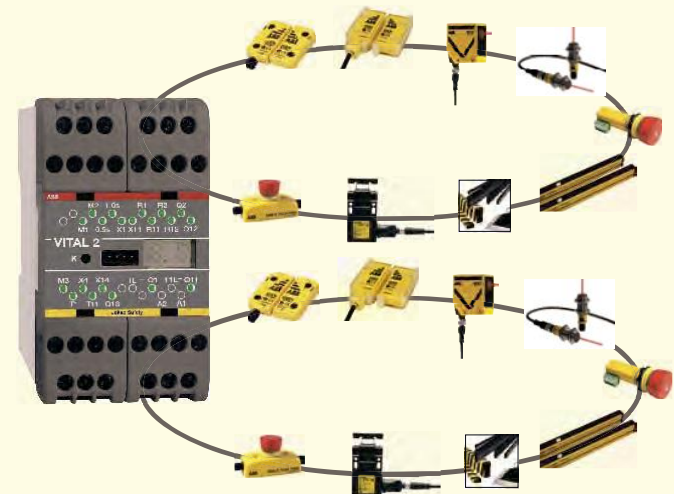
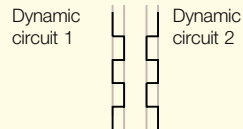
### Vital 1 Safety controller

Up to 30 sensors can be connected to the same dynamic safety circuit



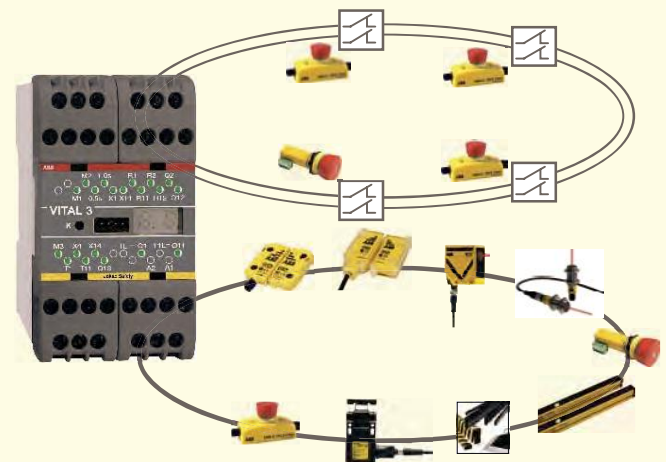
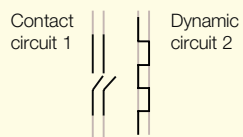
### Vital 2 Safety controller

- Two safety circuits are monitored by one module
- Simple system with extensive functionality
- Up to 10 sensors can be connected to each dynamic safety circuit
- Output group 2 can be set for time delay
- Three different modes of operation



### Vital 3 Safety controller

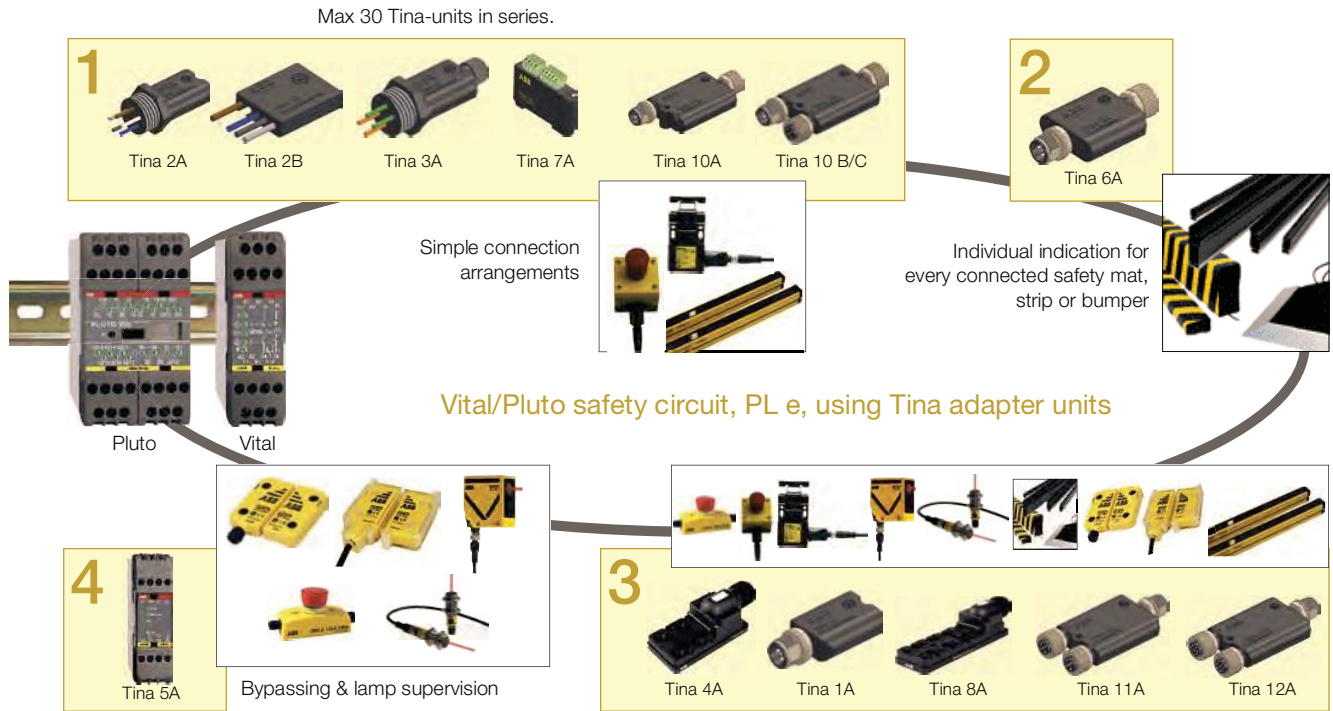
- Two safety circuits are monitored by one module
- Devices with two-channel, opening contacts can be connected to one circuit
- Simple system with extensive functionality
- Output group 2 can be set for time delay
- Three different modes of operation





# Tina - adapter units

Application - adaption of many different types of safety devices to the dynamic system



## Why you should choose Tina?

- Safety circuit, PL e, EN ISO 13849-1
- Individual status indication of every connected unit in the safety circuit
- Supervision of lamp indicating bypassing of safety device
- Quick release M12 connector

Jokab Safety

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# Tina - adapter units

## Tina is available in several versions

Tina is available in several versions depending on the type of safety component that is connected to the Vital or Pluto circuit. Also available is a bypassing unit, three connector blocks with 2, 4 or 8 M12 connectors, and a blind plug for un-used connections. As an accessory there is a Y-connector for series or parallel connection and even for connection of light beams

with separate transmitter and receiver. Tina units are also included in emergency stop models Smile Tina and Tina Inca. This is to adapt ABB Jokab Safety's products to dynamic safety circuits.

All Tina-units are designed to decode the dynamic signal in the safety circuit of Vital/Pluto.

### 1 Tina 2A/B, Tina 3A and Tina 7A

are used to connect safety components with mechanical contacts, such as emergency stops, switches and light curtains/light beams with relay outputs.

### Tina 10A/B/C

units are used for connection of Focus light beams/curtains to Vital or Pluto. Tina 10B has an extra M12 connector that enables reset, a reset lamp and switching of the Focus supply voltage. The Tina 10C has an additional M12 connector that permits a Focus transmitter to receive power.

### 2 Tina 6A

is used to connect door sensitive edges and safety mats.

### 3 Tina 4A, Tina 8A, Tina 11A and Tina 12A

are used as terminal blocks and simplify connection to a Vital safety circuit.

### 4 Tina 5A

is used to bypass the safety sensors in Vital security loop.

7



## Tina adapters

Description	Group	Part No	Product Hierarchy 4700002	
			Order Code	Price
Tina 1A plug for Tina 4/8	3	20-054-00	2TLA020054R0000	
Tina 2A adapter unit	1	20-054-01	2TLA020054R0100	
Tina 2B w cable to emergency	1	20-054-11	2TLA020054R1100	
Tina 3A adapter unit	1	20-054-02	2TLA020054R0200	
Tina 4A connection block	3	20-054-03	2TLA020054R0300	
Tina 5A bypass unit	4	20-054-04	2TLA020054R0400	
Tina 8A connection block w M12	3	20-054-05	2TLA020054R0500	
Tina 6A adapter unit	2	20-054-06	2TLA020054R0600	
Tina 7A adapter unit	1	20-054-07	2TLA020054R0700	
Tina 10A	1	20-054-12	2TLA020054R1200	
Tina 10B	1	20-054-13	2TLA020054R1300	
Tina 10C	1	20-054-16	2TLA020054R1600	
Tina 11A	3	20-054-17	2TLA020054R1700	
Tina 12A	3	20-054-18	2TLA020054R1800	

### Jokab Safety



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# Safety relays

## Why should you use safety relays?

### to meet existing safety standards

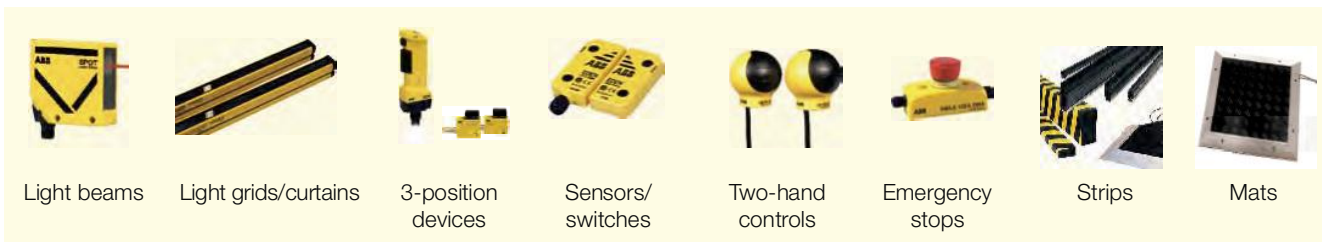
A fault in the control circuit logic, or failure of or damage to the control circuit must not lead to dangerous situations. This is the requirement in the EU's Machinery Directive 98/37/EC under the heading 1.2.7. "Failure of the control circuit". The directive implies that no person should be put at risk if for example, a relay sticks or if a transistor or two electrical conductors short-circuit.

A safety relay will fulfill these requirements. A safety relay has, for example, inputs that are checked for short-circuits and

dual redundant circuits that are checked at each operation. This can be compared to the dual brake circuits in a car. If one of the circuits is faulty the other will stop the car. In a safety relay there is an additional function which only allows a machine to start if both circuits are ok.

The standard for safety related parts of the control system describes various safety categories depending on the level of risk and application. One single universal relay with selectable safety categories solves this.

### to supervise safety devices



### for safe stops and reliable restarts



Dual stop signals when the gate is opened.

Entering or putting a hand or limb into a hazardous area must cause all machinery that can cause personal injury to stop safely. Many serious accidents occur when machinery is believed to have stopped but is in fact only pausing in its program sequence. The safety relay monitors the gate interlock switch and cables and gives dual stop signals.



Supervised reset when there can be a person within the risk area.

To make sure that nobody is within the restricted area when activating the reset button. A supervised reset button must be pressed and released before a reset can occur. Many serious accidents have been caused by an unintentional and unsupervised reset.



Timed reset when you cannot see the entire risk area.

Sometimes a double reset function is necessary to make sure that no one is left behind in the risk area. First, after ensuring no other person is inside the hazardous area, the pre-reset button must be activated, followed by the reset button outside the risk area within an acceptable time period e.g 10 seconds. A safety timer and a safety relay can provide this function.



Automatic reset for small hatches.

Where body entry is not possible through a hatch, the safety circuit can be automatically reset. The safety relays are reset immediately when the hatch interlock switch contacts are closed.

# Safety relays

## The most flexible safety relays on the market

We have the most flexible safety relays on the market. Our first universal relay was developed in 1988.

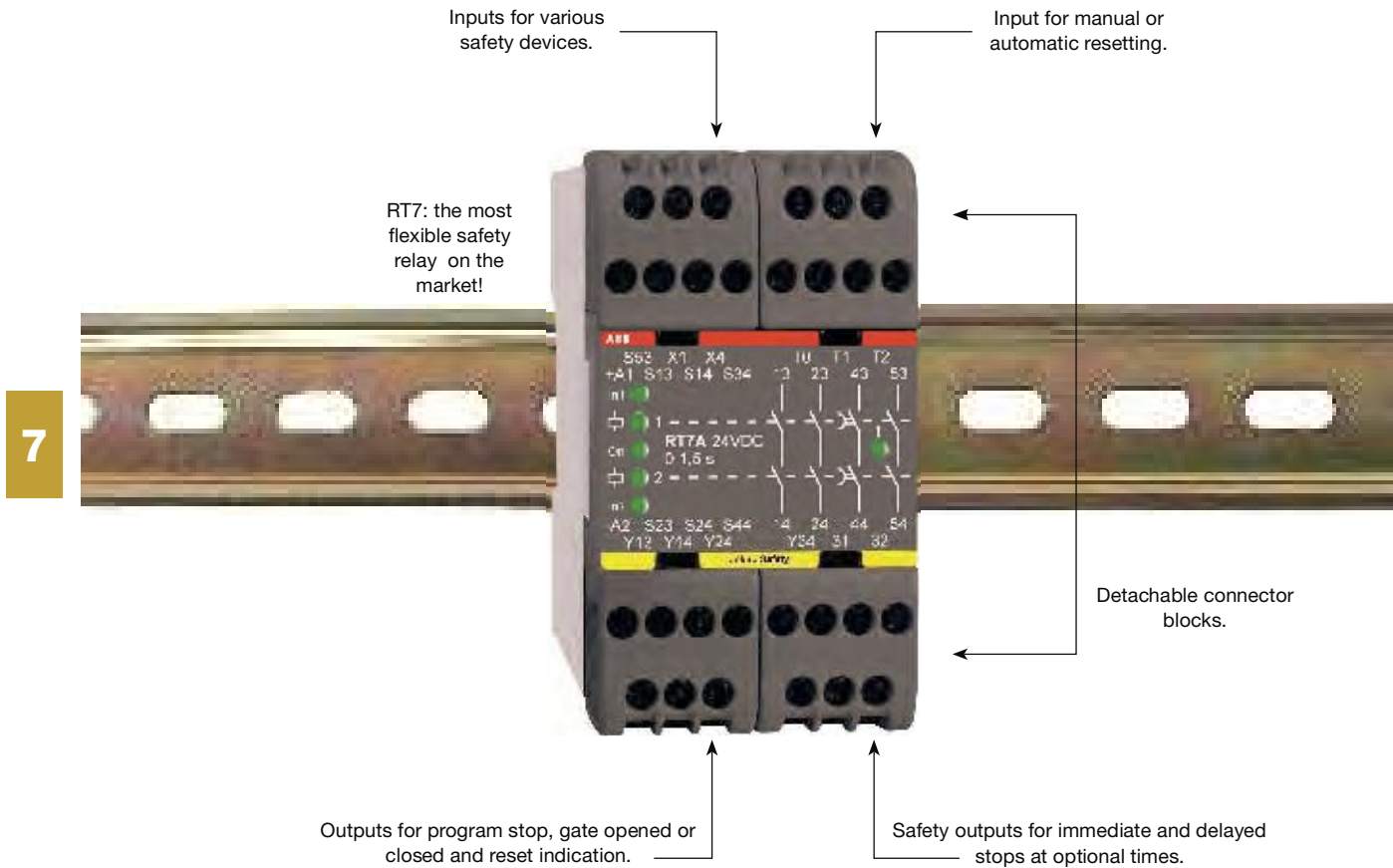
Nowadays, the flexibility is even greater and size has been reduced by 85 %. A universal relay is a safety relay with various input options for various safety devices and risk levels.

Internally, the safety relay is of the highest safety level (PL e according to EN ISO 13849-1). A machine supplier can therefore, with one single safety relay, select the input configuration that best suits their customers' safety requirements. In addition, our safety relays have detachable connector blocks for ease of replacement and testing. As our universal relays incorporate all input options,

they are compatible with all our previous safety relays as well as with other manufacturers' products.

Is a universal relay expensive? No, our latest patented construction is extremely simple and the number of major components is less compared to our previous universal relays. This means that the safety relays are even more reliable than before.

We also have a great deal of experience from safety solutions in our own system developments. It would be our pleasure to share these experiences with you! Please see the complete safety solutions in the section "Connection examples". Please do not hesitate to contact us if you should require any other safety solutions.



### Some of the advantages with ABB Jokab Safety's safety relays:

- Universal relays
- Excellent reliability
- Approved in Europe, USA, Canada
- Supervised reset
- Time reset
- Small and compact
- Detachable connector blocks
- Low power consumption
- Permits the use of long emergency stop cables
- EX compatibility
- Functions set by external hardwired links
- LED indication for inputs and outputs
- Powerful switching capacity



# Safety Relays

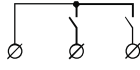
## Selection

	Safety relays								Safety-timers		Expansion relays			
	RT6	RT7	RT9	JSRT11	JSR4	JSR14	JSRT15T, BT50T, BT51T	JSRT15, BT50, BT51	JSHT1A/B	JSHT2A/B/C	ETT	JSR1T	JSR2A	JSR3T
Interlocking switch/Gate/Hatch	•	•	•	•	•	•	•	•						
Light curtains	•	•	•	•										
Light beams	•	•	•	•										
Safety mats	•	•	•		•	•								
Contact strips	•	•	•		•	•								
Two-hand control device					•									
Emergency stop	•	•	•	•	•	•	•	•						
Hold to run/enabling device	•	•	•	•	•	•			•					
Foot control device	•	•	•	•	•	•			•					
Area supervision	•	•	•	•	•	•								
Time resetting									•					
Time bypassing									•	•				
Inching										•				
Output expansion	•	•	•	•		•	•	•			•	•	•	
Delayed output		•					•				•	•		•

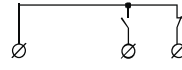
### Input alternatives (see also technical data on the next page)



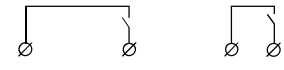
**Single-channel, 1 NO from +24 V  
Category 1, up to PL c**  
The input must be closed before the outputs can be activated. A stop signal is given when the input is opened.



**Two-channel, 2 NO from +24 V  
Category 3, up to PL d**  
Both the inputs must be closed before the outputs can be activated. A stop signal is given if one or both of the inputs are opened. Both the inputs must be opened and reclosed before the outputs can be reactivated. A short-circuit between the inputs is not monitored by the safety relay. Category 4 can only be achieved if a safety device with short circuit monitored outputs is connected.



**Two-channel, 1 NO & 1 NC from +24V  
Category 4, up to PL e**  
One input must be closed and one must be opened before the outputs can be activated. A stop signal is given if one or both of the inputs change position or if the inputs short-circuit. Both inputs must be put into their initial position before the outputs can be reactivated.



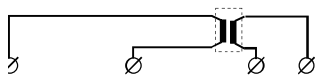
**Two-channel, 1 NO from 0 V &  
Category 4, up to PL e**  
Both the inputs must be closed before the outputs can be activated. A stop signal is given if one or both of the inputs are opened. Both the inputs must be opened and reclosed before the outputs can be reactivated. A Stop signal is given if there is a short-circuit between the inputs.

# Safety Relays

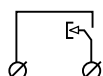
	Safety relays											Safety-timers		Expansion relays			
	RT6	RT7	RT9	JSBRT11	JSBR4	JSBT4	JSBT5T	BT50T	BT51T	BT50 (JSBT5)	BT51	JSHT1A/B	JSHT2A/B/C	ETT	JSR1T	JSR2A	JSR3T
<b>Safety category</b>	1-4	1-4	1-4	1-4	4	4	1-4°	1-4°	1-4°	1-4°	1-4°	1-4	1-4	1-4	1-4	1-4	1-4
<b>Safety input</b>																	
Single-channel, 1 NO from +24 V	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•
Two-channel, 2 NO from +24 V	•	•	•	•													
Two-channel, 1 NO & 1 NC from +24 V	•	•	•	•													
Two-channel, 1 NO from 0 V & 1 NO from + 24 V	•	•	•	•	•	•						•	•	•	•	•	•
Contact strips/Safety mats	•	•	•		•	•											
<b>Reset &amp; test input</b>																	
Monitored manual	•	•	•	•	•												
Automatic/Unmonitored manual	•	•	•	•		•	•	•	•	•	•						
Testing of contactors, relays, valves, etc.	•	•	•	•	•	•	•	•	•	•	•	•	•				
<b>Output</b>																	
NO	3	2	2	7	3	3				3	4			4*	4*	4	
NO delayed		2					3 <sup>†</sup>	3	4					4*	4*		2 <sup>‡</sup>
NO impulse outputs												2 <sup>‡</sup>	2 <sup>‡</sup>				
NC	1	1		2	1	1				1					1*	1	
NC delayed							1 <sup>†</sup>	1							1*		
Info. output	2	3	1					1	1								
<b>Switching capacity (resistive load)</b>																	
6A/250VAC/1500VA/150W	4	3	2	9	4	4	4	4 <sup>†</sup>	4 <sup>†</sup>	4	4			4	5		
4A/250VAC/1000VA/100W												2 <sup>‡</sup>	2 <sup>‡</sup>				2 <sup>‡</sup>
6A/250VAC/1380VA/138W			2 <sup>†</sup>														
10A/250VAC/1840VA/192W																	5
<b>Width (mm)</b>	45	45	22,5	100	45	45	22,5	22,5	22,5	22,5	22,5	45	45	22,5	45	45	22,5
<b>Supply voltage</b>																	
12VDC							•										
24VDC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
24VAC	•	•		•	•	•	•					•	•			•	•
48VAC	•	•		•	•	•						•	•			•	
115VAC	•	•		•	•	•						•	•			•	
230VAC	•	•		•	•	•						•	•			•	

\* Indicates the possibility of selecting delayed outputs    ‡ Indicates one relay contact per output (other relays having two contacts per output)  
<sup>†</sup> delayed    ° Category 4 depending on connection (When used as expansion relay with Pluto Safety PLC, then Category 4)    † fixed 0.5 s delay

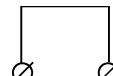
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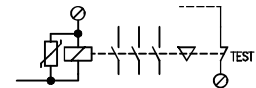
**Contact strips/Safety mats**  
**Category 3, up to PL d**  
 For an unpressurised mat/strip, both the relay inputs must be closed for the outputs to be activated. In the case of an activated mat/strip and short-circuit input channels, the relay will be de-energized. Current limitation prevents the safety relay from being overloaded when the channels short-circuit.



**Monitored manual reset**  
 A monitored reset means that the safety relay will not be reset if the reset button gets jammed when pressed in or if the input short-circuits. In order for the resetting to be complete, the input must be closed and opened before the outputs can close.



**Automatic/unmonitored manual reset**  
 Automatic reset means that the outputs are closed immediately when both the input conditions are satisfied and the test input is closed.



**Testing of contactors, relays & valves**  
 Can be carried out with both automatic and manual reset.

# Safety Relays



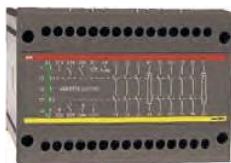
JSBR4



JSHT1



JSR1T



JSBRT11



RT6



JSBT5



JSHT2



JSR2A

## Safety Relays

Description	Part No.	Product Hierarchy 4700003	
		Order Code	Price
JSBR4 24DC Safety relay	10-002-00	2TLA010002R0000	
JSBR4 24AC Safety relay	10-002-02	2TLA010002R0200	
JSBR4 115AC Safety relay	10-002-04	2TLA010002R0400	
JSBR4 230AC Safety relay	10-002-05	2TLA010002R0500	
JSBT5 24AC/DC Safety relay	10-005-01	2TLA010005R0100	
JSBT5 12VDC Safety relay	10-005-07	2TLA010005R0700	
JSBT5T 24AC/DC Safety relay	10-005-11	2TLA010005R1100	
JSHT1A 24DC Time module	10-011-00	2TLA010011R0000	
JSHT1B 24DC Time module	10-011-10	2TLA010011R1000	
JSHT2A 24AC Time module	10-012-02	2TLA010012R0000	
JSHT2B 24DC Time module	10-012-10	2TLA010012R1000	
JSHT2C 24DC Time module	10-012-20	2TLA010012R1000	
JSR1T 0s Expan. relay 6A 24 DC	10-015-00	2TLA010015R0000	
JSR1T 1.5s Expan. relay 6A 24DC	10-015-05	2TLA010015R0500	
JSR1T 8s Expan. relay 6A 24 DC	10-015-06	2TLA010015R0600	
JSR1T 0.5s Expan. relay 6A 24 D	10-015-10	2TLA010015R1000	
JSR1T 10s Expan. relay 6A 24DC	10-015-20	2TLA010015R2000	
JSR1T 1s Expan. relay 6A 24 DC	10-015-30	2TLA010015R3000	
JSR1T 2s Expan. relay 6A 24 DC	10-015-40	2TLA010015R4000	
JSR1T 3s Expan. relay 6A 24 DC	10-015-50	2TLA010015R5000	
JSR1T 5s Expan. relay 6A 24DC	10-015-60	2TLA010015R6000	
JSR3T Expan. relay. 24 AC/DC	10-017-01	2TLA010017R0100	
JSBRT11 24DC Safety relay	10-025-00	2TLA010025R0000	
JSBRT11 115AC Safety relay	10-025-04	2TLA010025R0400	
JSBRT11 230AC Safety relay	10-025-05	2TLA010025R0500	
RT6 24DC Safety relay	10-026-00	2TLA010026R0000	
RT6 24AC Safety relay	10-026-02	2TLA010026R0200	
RT6 115AC Safety relay	10-026-04	2TLA010026R0400	
RT6 230AC Safety relay	10-026-05	2TLA010026R0500	
JSR2A Expan. relay 10A 24AC/DC	10-027-01	2TLA010027R0100	
JSR2A Expan. relay 10A 115AC	10-027-04	2TLA010027R0400	
JSR2A Expan. relay 10A 230AC	10-027-05	2TLA010027R0500	

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Safety Handbook  
2TLC172001C0201

# Safety Relays



## Safety Relays

Description	Part No.	Product Hierarchy 4700003	
		Order Code	Price
RT7B 24DC Safety relay 3s	10-028-10	2TLA010028R1000	
RT7B 115AC Safety relay 3s	10-028-14	2TLA010028R1400	
RT7B 230AC Safety relay 3s	10-028-15	2TLA010028R1500	
RT7A 24DC Safety relay 1.5s	10-028-20	2TLA010028R2000	
RT7A 24AC Safety relay 1.5s	10-028-22	2TLA010028R2000	
RT7A 115AC Safety relay 1.5s	10-028-24	2TLA010028R2400	
RT7A 230AC Safety relay 1.5s	10-028-25	2TLA010028R2500	
RT9 24DC Safety relay	10-029-00	2TLA010029R0000	
E1T 0s Expansion relay 24DC	10-030-00	2TLA010030R0000	
E1T 0.5s Expansion relay 24DC	10-030-10	2TLA010030R1000	
E1T 1s Expansion relay 24DC	10-030-20	2TLA010030R2000	
E1T 1.5s Expansion relay 24DC	10-030-30	2TLA010030R3000	
E1T 2s Expansion relay 24DC	10-030-40	2TLA010030R4000	
E1T 3s Expansion relay 24DC	10-030-50	2TLA010030R5000	
BT50 24DC Safety relay	10-033-00	2TLA010033R0000	
BT50T 24DC Safety relay	10-033-10	2TLA010033R1000	
BT51 24DC Safety relay	10-033-20	2TLA010033R2000	
BT51T 24DC Safety Relay	10-033-30	2TLA010033R3000	

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Safety Handbook  
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# Safety light grids, curtains and scanners Focus II

## Application:

Optical protection in an opening or around a risk area



7

## A light grid/light curtain with many possibilities



Focus II is a new version of our previous light beam/light curtain Focus. Features such as muting and override are standard in all Focus II light curtains and light beams. For light curtains, blanking and break functions are also standard. The optical sensors on Focus II also have variable frequency. The Focus II units are light grids/curtains with safety functions intended for applications where it is of great importance to protect persons from a dangerous machine, robot or other automated systems where it is possible to access to a dangerous area.

Focus II creates a protection field with infrared beams. If any beam is interrupted the safety mechanism is triggered and the dangerous machine is stopped. Focus II fulfills the requirements for non-contact safety equipment type 4 (Focus 4 series) according to the international regulation standard EN 61496-1.

Units are available with safety heights between 150 and 2400 mm. All electronic control and monitoring functions are included in the light curtain profiles. External connection is made via a M12

connection at the end of the profile. Synchronization between transmitter and receiver is achieved optically. No electrical connection between the units is required. Control and monitoring of the beam transmission is carried out by two micro-processors which also give information on the status and alignment of the light curtain via several LEDs.

### Muting and Override included in all Focus II

The "Muting" and "Override" functions are available on all Focus II light grids/curtains and is enabled directly when an indication lamp LMS is connected. Muting implies that one or more segments or the whole light curtain can be bypassed during in and out passage of material.

In the Focus II with Muting there is also an Override function which makes it possible to bypass the light grid/curtain i.e. activate the outputs if a machine start is necessary even if one or more light beams are interrupted. This is the case when the muting function is chosen and the A and B inputs

# Safety light grids, curtains and scanners

## Focus II

### Features

- Type 4 according to EN 61496
- Flexible assembly
- LED indication
- High protection class (IP65)
- Range 3-40 m
- Time reset
- Muting
- Single/Double Break function
- External Device Monitoring (EDM)
- Available with different resolutions
- Up to PL e according to EN 954-1/EN ISO 13849-1

### Technical data - general

#### Performance

Protective height	150mm - 2400mm
Object resolution	14mm and 30mm
Beam pitch (centre)	7.5mm and 18mm
Operating range	0.2m - 3.0m (14mm resolution), default 3.0m - 6.0m (14mm resolution), DIP switch option 0.2m - 7.0m (30mm resolution), default 7.0m - 14m (30mm resolution), DIP switch option
Effective aperture angle	For FI-2-xx-yyyy: $\pm 5^\circ$ maximum, transmitter and receiver according to IEC61496-2 for distances >3m For FI-4-xx-yyyy: $\pm 2.5^\circ$ maximum, transmitter and receiver according to IEC61496-2 for distances >3m
Response time ON to OFF	Maximum: 103ms.
Light source	Infrared emitting LEDs, wavelength 880nm Power dissipation: <3mW class 1 acc. EN60825-1

#### Mechanical

Housing material	Painted aluminium, yellow, RAL 1018
Front plastic material	Polycarbonate
Connector material	Polyamide 6.6
End cup material	Polycarbonate
Sealing, gasket material	EPDM
Mounting bracket material	Black powder coated stainless steel
Mounting bolt	Stainless steel M6
Wiring connectors	8 pin receiver and 5 pin transmitter

#### Environmental

Enclosure rating	IP65
Operating temperature	-10°C ... +55°C
Storage temperature	-25°C ... +70°C
Relative humidity	95% maximum. non condensing
Vibration (IEC 60086-2-6)	10-70 Hz, 0,35mm, maximum on all 3 axes
Shock (IEC 60086-2-29)	30 G for 16ms, 1000 shock on all 3 axes

#### Electrical

Power transmitter	24VDC $\pm 20\%$ , maximum current 70mA
Power receiver	24VDC $\pm 20\%$ , maximum current 100mA
Input voltage threshold	$V_{H,min} = 17VDC$ , $V_{L,max} = 6V$
Test/reset	10mA, 24VDC, normally closed input, >2,5s
Muting A	10mA, 24VDC
Muting B	10mA, 24VDC
EDM	10mA, 24VDC
Muting lamp	50mA min, 24VDC

7

# Safety light grids, curtains and scanners

## Focus II

### Technical data - general

#### Electrical

Safety outputs (OSSD)	Two PNP safety outputs, each sourcing 500mA 24VDC. Short circuit protection.
Voltage drop	< 2,3 v
Leakage current	< 1 mA
Capacitive load	< 250 nF for OSSD output
Inductive load	Please contact us
Test pulse data	Test pulse <300us Test interval, response time x 0,33 Repetition, response time x 0,66
Power supply	Must meet the requirements of EN/IEC60204-1 and EN/IEC61496-1, and must guarantee safe insulation from the mains voltage in accordance with IEC60742 and be able to cover a drop of supply voltage of at least 20 ms.
Protection class (IEC 536 or VDE 106)	III
Power on delay	<2 s
Insulation resistance	> 20 M ohms
Dielectric voltage strength	350 vAC (1 min)

#### Connections

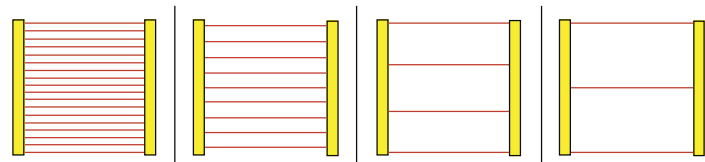
Cable length Focus II	Shielded cables: Max. 100m, 0,4mm <sup>2</sup> Max. 50m, 0,2mm <sup>2</sup>
Cable length Focus II Mix	Shielded cables, M12 connector 8-pin these cables are shipped with the sensors. Maximum length is 0,9m.

#### Conformity

AOPD (ESPE)	FII-2-xx-yyyy: Type 2 acc. to EN/IEC 61496-1 and EN/IEC 61496-2 FII-4-xx-yyyy: Type 4 acc. to EN/IEC 61496-1 and EN/IEC 61496-2
Category	FII-2-xx-yyyy system is suitable for safety control systems up to category 2 acc. EN 954-1 FII-4-xx-yyyy system is suitable for safety control systems up to category 4 acc. EN 954-1
Safety integrity level	Focus II system is suitable for up to SIL 3 per IEC 61508
Performance level	Focus II type 2 systems is suitable for safety control systems up to Performance level c acc. EN ISO 13849-1. Focus II type 4 systems is suitable for safety control systems up to Performance level c acc. EN ISO 13849-1.
Mean time to dangerous failure (MTTF <sub>d</sub> )	450 years
PFH	2,5*10 <sup>-09</sup>
Proof test interval	Every 20 years

# Safety light grids, curtains and scanners

## Focus II - light curtain/grid, Type 4 (FII-4)



Type 4	FII-4-14-zzzz	FII-4-30-zzzz	FII-4-K4-zzzz		FII-4-K3-800
Resolution	14	30	300	400	400
Height (mm=zzzz)	150 300 450 600 750 900 1050 1200 1350 1500 1650 1800 1950 2100 2250 2400	150 300 450 600 750 900 1050 1200 1350 1500 1650 1800 1950 2100 2250 2400	900	1200	800
Range (m) SR LR	0,2-3 3-6	0,2-7 7-14	0,5-20 20-40		0,5-20 20-40
Reaction time off (ms)	12-68	9-31	13		13
Reaction time on (ms)	138-104	141-119	142		142
Manual reset	•	•	•		•
Automatic reset	•	•	•		•
Pre reset	•	•	•		•
Muting inputs	•	•	•		•
Muting lamp supervision	•	•	•		•
Override	•	•	•		•
Muting T/L/X	• / • / •	• / • / •	• / • / •		• / • / •
Blanking 3 types	• / • / •	• / • / •	- / - / -		- / - / -
Single/Double break	• / •	• / •	- / -		- / -
EDM	•	•	•		•
Dyn. Adaption to Vital/Pluto	□	□	□		□

• Standard

□ With Tina 10A/10B/10C or FMC-Tina

7



FII-4-K2-500		FII-4-K4-zzzz D		FII-4-K3-800 D	FII-4-K2-500 D		FII-4-K2C-zzzz	FII-4-K2C-800	FII-4-K1C-500	
500	300	400	400	400	500	500	300	400	800	500
500	900	1200	800	800	500	500	900	1200	800	500
0,5-20 20-40	0,5-20 20-40	0,5-20 20-40	0,5-20 20-40	0,5-20 20-40	0,5-20 20-40	0,5-20 20-40	0,5-7	0,5-8	0,5-12	0,5-12
13	13	13	13	13	13	13	13	13	13	13
142	142	142	142	142	142	142	142	142	142	142
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# Safety light grids, curtains and scanners

## Focus II - FMC, FMI, FRM- versions and Tina units

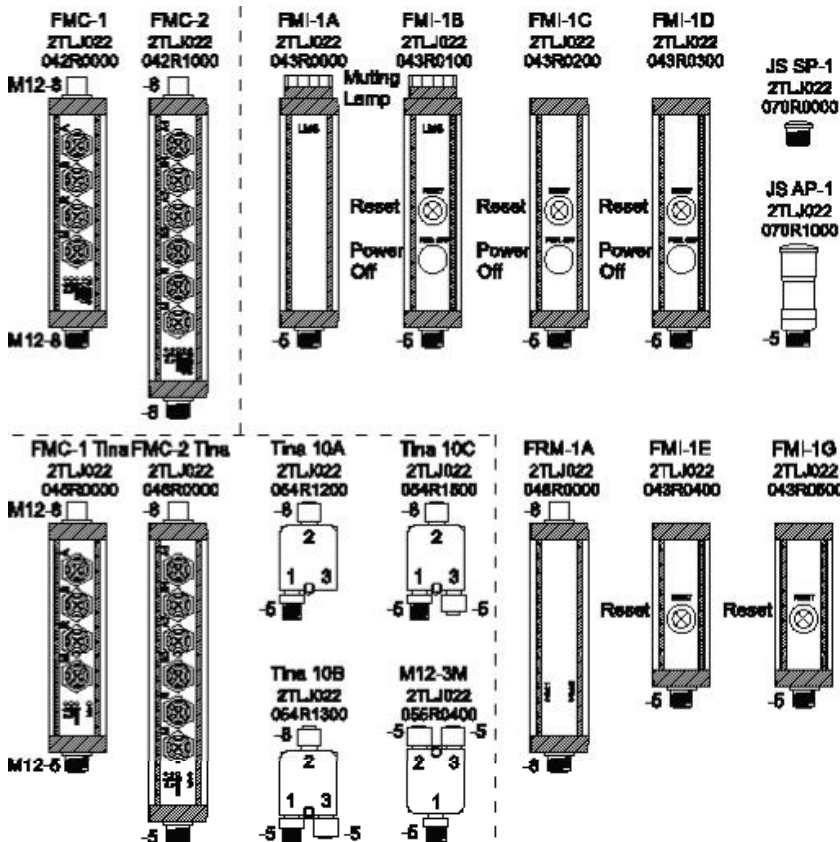


The FMC Focus Muting Connector, is a small, optimal unit which is used when the Focus light grid/curtain is required to be bypassed for in and out passage to and from a dangerous area. The FMC-unit is easily connected to Focus with a M12 connector.

The FMI Focus Muting Indicator, is a small unit with built-in muting lamp, reset button, "power off" (for alignment and override). The FMI unit is connected to the FMC unit with M12 connectors to facilitate the muting function connection.

## Tina-versions have dynamic safety outputs for Vital/Pluto

7



- FMC-1(2): with connectors for muting sensors (A+B), reset, power off and muting lamp (R) and muting lamp (M).
- FMI-1A: with muting lamp only.
- FMI-1B: with reset, power off and muting lamp.
- FMI-1C: with reset and power off.
- FMI-1D: with reset, power off and internal resistor for the muting lamp.
- FMI-1E: as pre reset connected to connector A (A2) on FMC-1(2) (Tina).
- FMI-1G: with reset, and internal resistor for the muting lamp.
- FMC-1 (2)Tina: same as FMC-1(2) but connected to Vital or Pluto.
- Tina 10A: adaptor unit for connecting Focus to Vital or Pluto.
- Tina 10B: simplified FMC-1(2) Tina including only the connector (R).
- Tina 10C: simplified FMC-1(2) Tina including only power supply on con.no.3.
- M12-3M: bypass unit for easy connection outside the cabinet
- FRM-1A: translates the two OSSD outputs to relay outputs (and power supply).
- JS SP-1: protection plug for not used connectors.
- JS AP-1: adaptor for FMC units to use instead of FMI-1B or -1D on the (R) connector including muting resistor.

# Safety light grids, curtains and scanners

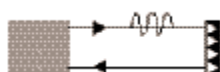
## Muting sensors – Mute R



### Retro-reflective with polarizing filters



10...30 VDC  
PNP  
Dark-on output



#### Features

- Range adjustable
- Light reserve warning indicator
- Transistor output, PNP
- 1000 Hz switching frequency
- Short-circuit protection, reverse polarity protection and power-up output suppression
- Connector M12
- EMC tested according to IEC 801 and EN50081-1/EN 50082-2

#### Technical data - general

Description		Product Hierarchy 4700004	
		Order Code	Price
	Part No		
	Mute R (FSTR-1)	2TLA022044R0000	227.40
Output	PNP, dark on		
Connection	Connector M12		
Range adjustment	Yes		
Range	0.15... 2.5 m (with reflector FZR 1) 0.15...5m (with reflector FZR 2A)		
Light source	Visible-red, 660 nm, pulsed with polarizing filter		
Supply voltage	10...30 VDC		
Allowable ripple	± 10% of $U_s$		
Current consumption (without load)	<15 mA		
Max. load current	100 mA		
Residual voltage	<1,6 V		
Max. switching frequency	1000 Hz		
Protection class	IP67		
Temperature (operating and storage)	-25 to +65° C		
Weight	approx. 15 g		
All technical data at 25° C and 24V.			

# Safety light grids, curtains and scanners

## Bjorn - strong supports for light grids and mirrors

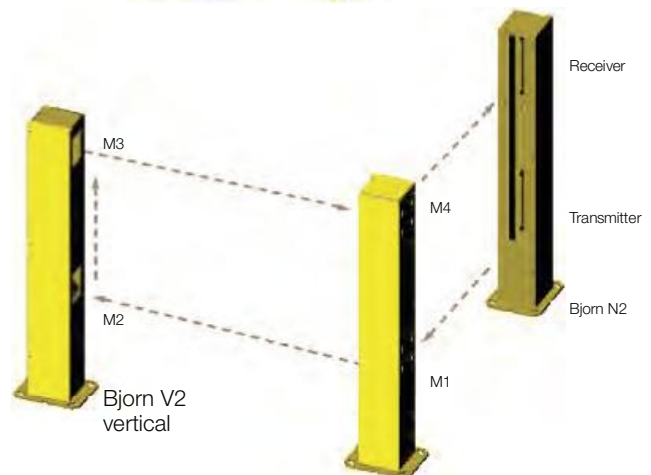


### Protects light curtain, light grids and mirror

Bjorn is a very stable and flexible stand system in which Focus safety light beams and mirrors are mounted in the stand. The fixings for the mirrors in the stand can be turned to provide either vertical or horizontal angles. The robust material of the Bjorn protects Focus units from direct collisions, and thus prevents unnecessary material damage and halts in production.

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Bjorn is available in stock as a standard version for dual safety light beams. Bjorn versions can also be ordered for Focus 3 and 4-beams.



### Technical data - general

Description	
Colour:	Yellow powder-coated (RAL 1018)
Material:	3 mm steel
Dimensions: Cross section Foot	146 mm x 130 mm 230 mm x 190 mm
Weight: H2, V2 and N2 H3 H4-1, H4-2 N5	15 kg/piece 17 kg/piece 20 kg/piece 27 kg/piece
Mirror reduction:	≤10 %

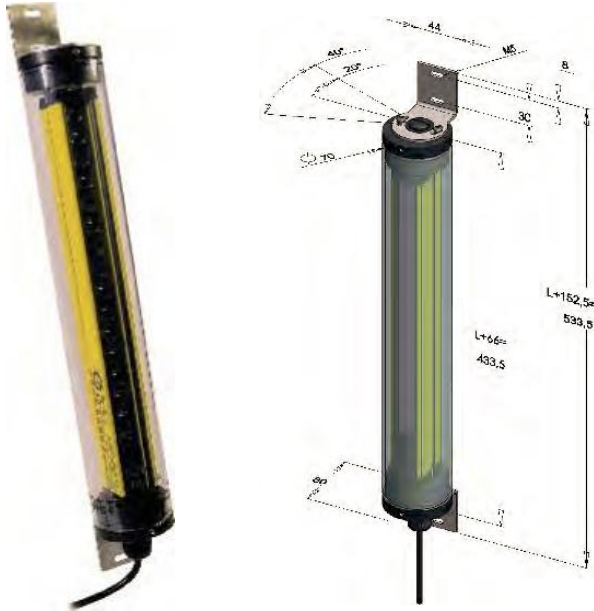
### Selection

Type	Part No.	Product Hierarchy 4700004	
		Order Code	Price
Bjorn H2	22-041-40	2TLA022041R4000	
Bjorn V2	22-041-41	2TLA022041R4100	
Bjorn H3	22-041-42	2TLA022041R4200	
Bjorn H4-1	22-041-43	2TLA022041R4300	
Bjorn H4-2	22-041-44	2TLA022041R4400	
Bjorn N2	22-041-45	2TLA022041R4500	
Bjorn N3	22-041-46	2TLA022041R4600	
Bjorn N4-1	22-041-47	2TLA022041R4700	
Bjorn N4-2	22-041-48	2TLA022041R4800	
Bjorn N5	22-041-48	2TLA022041R4900	

H = Horizontal reflection  
V = Vertical reflection  
N = Floor stand for Focus

# Safety light grids, curtains and scanners

## Focus Wet - protection against water and dust for Focus light curtains and light beams



### Protection in severe environments

- Adjustable  $\pm 20^\circ$
- Rotatable and replaceable tube
- Capable of draining and through ventilation

Wet is used for protection against water (or dust) where extreme washing conditions are encountered. The protective encapsulation rating (IP68) now enables Focus light curtains and light beams to be used for such applications as the food industry where the use of high pressure washing for cleaning machinery often occurs. The draining and through ventilation capabilities mean that condensation can be avoided.

Wet, with Focus light curtains or light beams, is pre-assembled complete with cabling, on request. During installation on a machine a Wet unit can be adjusted by  $\pm 20^\circ$  with the accompanying angle bracket. The plastic tube is rotatable and the outside is easy to clean.

### Technical data - general

#### Description

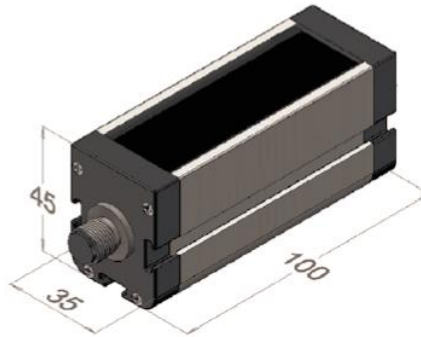
Colour:	Transparent plastic
Length including lid:	light curtain/light beam + 66 mm
Material:	
Tube	PC
Lid	PEHD-300
Angle bracket	Stainless steel
Max. ambient temperature:	+55°C
Installation adjustment	$\pm 20^\circ$
Protection rating	IP68 (IP69K)

### Selection

Type	Part No.	Product Hierarchy 4700004	
		Order Code	Price
WET-150 FII	22-038-00	2TLJ022038R0000	
WET-300 FII	22-038-01	2TLJ022038R0100	
WET-450 FII	22-038-02	2TLJ022038R0200	
WET-600 FII	22-038-03	2TLJ022038R0300	
WET-750 FII	22-038-04	2TLJ022038R0400	
WET-900 FII	22-038-05	2TLJ022038R0500	
WET-1050 FII	22-038-14	2TLJ022038R1400	
WET-1200 FII	22-038-06	2TLJ022038R0600	
WET-1350 FII	22-038-15	2TLJ022038R1500	
WET-1500 FII	22-038-07	2TLJ022038R0700	
WET-1650 FII	22-038-08	2TLJ022038R0800	
WET-1800 FII		2TLJ022038R1900	
WET-K-500 FII	22-038-09	2TLJ022038R0900	
WET-K-800 FII	22-038-10	2TLJ022038R1000	
WET-K-900 FII	22-038-11	2TLJ022038R1100	
WET-K-1200 FII	22-038-12	2TLJ022038R1200	
WET-L- FII		2TLJ022038R1800	
WET-T- FII		2TLJ022038R1700	

# Safety light grids, curtains and scanners

## Laser aligners - JSRL-2 & 3



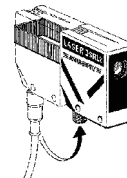
When the solution involves one or more mirrors JSRL-3 facilitates alignment of light beams or light curtains. The JSRL-3 is easily secured using the accompanying elasticated tape around the transmitter and receiver unit, and must be placed so that the flat rear of the unit is up against the front glass of the light curtain. When the laser aligner is switched on the red laser spot should be visible at the corresponding unit, even via mirrors.

7

The JSRL-3 contains two type AAA batteries that are changed by unscrewing the bottom end cap.

### Selection

		Product Hierarchy 4700004	
Type	Part No	Order Code	Price
JSRL-2	20-008-01	2TLA020008R0100	
JSRL-3	20-008-02	2TLA020008R0200	



Laser aligner JSRL2 for light beam Spot T/R.



# Safety light grids, curtains and scanners

## Spot - safety light beams



### Photoelectric guarding of an entrance or risk area

- Safety level Type 4 according to EN 61496
- Versatile mounting
- LED indication
- Protection class IP67
- 10 m or 35 m range
- Bypassing possibility
- Light beam, emergency stop and Eden in the same safety circuit together with Vital/Pluto achieves PL e according to EN ISO 13849-1

### A light beam for the highest safety level

The light beam is available in two versions Spot 10 for distances up to 10 m and Spot 35 for up to 35 m. The light beams can be mounted at different heights and be angled around a machine using our mirrors and brackets.

Spot and Vital/Pluto in combination fulfils the requirements for PL e according to EN ISO 13849-1 and type 4 according to EN 61496. Several light beams, Eden sensors and emergency stops can be connected in series achieving the high safety level for the safety circuit. A number of solutions for bypassing of light beams for material transport are available.

For indication there are LED's on the transmitter and on the receiver which indicate 'contact' between transmitter and receiver and safety status. The 'contact' information is available via the light beam receiver connection cables.

### Function

The Spot light beam is supervised by the Vital safety controller or by the Pluto safety-PLC. A unique coded signal is sent out from the control unit to the transmitter (Spot T). The signal which comes back from the receiver (Spot R) is then compared in the Vital/Pluto. If the correct coded signal is received the Vital/Pluto switches the necessary safety output contacts to permit dangerous machine movements. Coding guarantees that no output signals can be produced by light from other sources, interference or faults in components in the transmitter or receiver. The light beam is dynamically supervised which means that if the signal stops pulsating at the correct frequency it is immediately detected. By means of coding, the dynamic signal can pass between up to 6 pairs of transmitters and receivers, with only one pair needing to be electrically connected to a Vital.

### Technical data - general



#### Description

Safety level EN/IEC 61496 EN 954-1 EN ISO 13849-1	Type 4 with Vital/Pluto Category 4 PL e
PFH <sub>d</sub>	1,14x10 <sup>-9</sup>
Power supply	17 – 27 VDC, ripple ±10%
Light source	Red visible light, 660 nm, <±2°
Protection class	IP 67
Range	
Spot 10:	0 - 10 m
Spot 35:	0 - 35 m
Installation	
Spot 10:	2xM18 nuts (provided)
Spot 35:	Either via mounting holes in the casing or with angle bracket JSM63 (provided)
Operating temperature range	-25°C – +65°C
Cable connection	M12 fixed connector

### Selection

Selection		Product Hierarchy 4700004	
Type	Part No	Order Code	Price
Spot 10 T/R	20-009-05	2TLA020009R0600	227.40
Spot 35 T/R	20-009-06	2TLA020009R0500	259.75

# Safety light grids, curtains and scanners

## Look - laser scanner



### A laser scanner that has the ability to scan four individual areas

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The Laser Scanner 'Look' has the ability to scan four individual areas. Each area can be programmed individually for the specific application, making it ideal for auto-carriers that need to operate along different paths. The safety level is according to Type 3, EN 61496-3. It is approved for use as personnel protection in robot working areas, conveyor equipment etc. The small design makes it easy to install. Look is not affected by ambient light levels (sun etc) or welding arcs/sparks. The protection fields are quick and easy to create on a PC in a Windows environment. It has four individual programmable protection areas. Each area consists of one personnel protection field with maximum 4 m radius, and one warning field of maximum 15 m radius. Changing between the areas is easily achieved using additional sensors.

### Selection

Part No	Product Hierarchy 4700004	
	Order Code	Price
Look JS4-4	50034195	251.31

### Photoelectric guarding of several risk areas

- Type 3, IEC61496-3
- Easy to install
- Protected from welding sparks/arcs
- Easy to program
- 4 individual programmable protection areas simultaneously with Pluto

### Technical data - general



Description	
Safety level EN/IEC 61496 EN 954-1 EN ISO 13849-1 PFH <sub>d</sub>	Type 3 Category 3 PL d 1,50E-07
General data Scanning rate: Scanning angle: Operating voltage: Transmitter: Current consumption: Angle resolution: Weight: Housing:	25 Scans/sec 190° 24 VDC +20%/ -30% Laserdiode; Protection class 1 approx. 300 mA 0,36° 2 kg H=155 mm, W=140 mm, D=135 mm
Personnel protection field Scanning distance: Area: Output: Resolution: Response time: Reflectance factor:	Radius 0.2 - 4 m 4 areas, switchable by 24 VDC input 2 x OSSD; 250 mA; failsafe transistor PNP outputs 24 VDC 70 mm at 4 m 80 ms min 1,8 %
Warning field Scanning distance: Area: Output: Resolution: Response time: Reflectance factor:	Radius 0 - 15 m 4 areas, switchable by 24 VDC input PNP-transistor, 24 VDC/100 mA 150 mm at 15 m, ± 20% 80 ms min 20%
Contour measurement Measurement range: Output: Response time: Reflectance factor: Reset: Suitable interface safety relay:	Radius 0- 50 m RS 232/422 80 ms min 20% manual or automatic RT6, RT7, RT9, JSBRT11 or Pluto
Conformity:	Machine directive 2006/42/EG EN ISO 12100-1/2, EN 954-1, EN ISO 13849-1, -2, EN 61496-1



# Stopping time and machine diagnosis tools

## Smart manager



Smart is ideal for safety supervision and for diagnosis of machine operation

Smart shows graphs/values for:

- Stopping time
- Stopping distance
- Speed
- Position of stopping signal

Smart has many valuable features for machine diagnosis:

- Graphic presentation of measurements
- Easy to analyse stopping characteristics and movement
- Gives parameters for safety design (e.g. stop time)
- Calculates minimum allowed safety distance
- Shows how the stop distance can be optimised
- Electrical reaction time and mechanical/hydraulic breaking can be identified and analysed
- Digital in/out signals and analogue inputs

Smart is perfect for periodic monitoring of safety parameters and other conditions for the maintenance and trouble-shooting of machines. Because Smart can compare old and new graphs, it becomes easy to find out the reasons for machine malfunctions. One can also supervise machines during operation and compare how they perform over time.

Easy to use:

- Measurements with or without electrical connection
- Ideal for machine performance diagnosis
- Calculation of correct safety distances

Stopping units and sensors

Smart is a further development of our well established JSSM1 Stopping Analyser. All the stopping units and sensors for the JSSM1 can also be used with Smart. The amount of connection possibilities have also increased. Smart has 9 digital I/O, one input for an incremental sensor (for position and speed) and two analogue inputs. This makes it easy to measure sequences in conjunction with motion lapse and other analogue values.

# Stopping time and machine diagnosis tools

## Smart & accessories



### Smart & accessories

Description	Application	Part No	Product Hierarchy 4700005	
			Order Code	Price
Smart logger	-	70-300-01	2TLA070300R0100	
SM2 button unit	Two-handed control unit, Emergency stop, etc.	70-300-02	2TLA070300R0200	
SM3 Relay unit	Electrical connection providing a stop pulse.	70-300-03	2TLA070300R0300	
SM11 Flag unit	Ligh curtain, light beam	70-300-11	2TLA070300R1100	
SM5/1250 Linear sensor	Linear movement, e.g. press tools	70-300-04	2TLA070300R0400	
SM5/2500 Linear sensor		70-300-05	2TLA070300R0500	
SM7 Rotation sensor	Rotating motion, e.g. lathes, rollers	70-300-07	2TLA070300R0700	
SM13 Battery pack	Negative pole at the centre of the charging connector	70-300-23	2TLA070300R2300	
SM9 Carrying case	-	70-300-09	2TLA070300R0900	
SM6	AC/DC converter for Smart	70-300-06	2TLA070300R0600	
SM14	Charger for flag unit SM11 and battery pack SM13	70-300-24	2TLA070300R2400	
USB cable	USB cable for communication with computer	70-300-15	2TLA070300R1500	
Extension cables	ABB Jokab Safety's extension cables with 5 conductors ideal for all Smart accessories	70-300-01	2TLA020056R2000	
		70-300-01	2TLA020056R2100	
		70-300-01	2TLA020056R2200	
		70-300-01	2TLA020056R2300	
		70-300-01	2TLA020056R2400	

# Sensors and switches

## Why you should use sensors and switches



### - to supervise doors and hatches around dangerous machines!

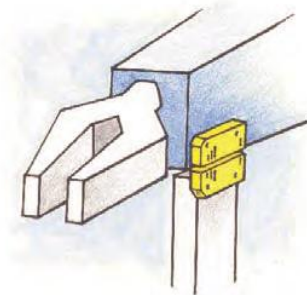
Assurance that a machine stops when a door or a hatch is opened can be solved by using different types of switches and sensors which are monitored with a safety relay or a safety PLC. Switches and sensors are available both as non-contact (dynamic or magnetic) and various types of interlocking devices. Interlocking devices can be used when it is required, via a signal, to lock a gate during processes that cannot be stopped during certain operations. They are also used with machines that have a long stopping time to prevent someone from entering before the machine has stopped.



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### - to ensure that a position is reached!

The sensor monitors that the robot is standing still in a monitored position when someone enters the robot's working area. The robot is then only stopped by the program. If the robot leaves the position the power will be cut directly. This is used when the robot does not stop safely without restarting problems.



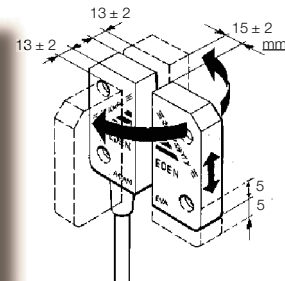
### - to manage the safety in harsh environments!

Non-contact dynamic sensors have a long lifetime because they are not physically mechanically operated. They also endure very harsh environments, e.g. cold, heat, high-pressure wash-down which is important in the food industry for example. Because the sensors are small, they are very easy to position and can even be completely concealed in doors and hatches.



# Sensors and switches

## Eden - non contact safety sensor



Flexible mounting and  
The ability to operate at long  
distances.

### A non-contact safety sensor for the highest safety level

Eden - Adam and Eva are a non-contact safety sensor for use on interlocked gates, hatches etc. A coded signal is transmitted from the control device Vital or from the safety PLC Pluto via Adam to Eva which modifies the signal and sends it back again. The maximum sensing distance between Adam and Eva is currently 15 mm ± 2 mm.

Up to 30 Edens can be connected in series to Vital and still achieve the same safety level in the safety circuit. It is also possible to connect safety light beams and E-stops in the same safety circuit.

Adam is available with cable lengths up to 10 m and with M12 connectors. The LED on Adam provides indication of three different conditions, contact/non-contact between Adam and Eva and safety status. The same information is also available via the Adam connection cable. Eden E is available for harsh environments, as are Adam E and Eva E. Rapid blinking serves as an alignment aid. There are also coded versions, Eden C, Eden EC, Adam EC and Eva EC.

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Type	Part No	Product Hierarchy 4700006	
		Order Code	Price
Eva	20-046-00	2TLA020046R0000	POA
Eva E	20-046-06	2TLA020046R0600	POA
Adam M12	20-051-00	2TLA020051R0000	POA
Adam 3 m	20-051-02	2TLA020051R0200	POA
Adam 5 m M12	20-051-03	2TLA020051R0300	POA
Adam 10 m	20-051-04	2TLA020051R0400	POA
Adam 20 m	20-051-05	2TLA020051R0500	POA
Adam E 10 m M12	20-051-06	2TLA020051R0600	POA
Adam E 0.5 M12	20-051-07	2TLA020051R0700	POA
Adam E 20 m M12	20-051-08	2TLA020051R0800	POA
Adam E 1 m	20-051-09	2TLA020051R0900	POA
Eden C 10 m	20-051-14	2TLA020051R0400	POA
Eden EC 10 m	20-051-16	2TLA020051R0600	POA
Adam 0.5 m M12	20-051-20	2TLA020051R2000	POA

### Applications

- Doors and hatches
- Position control
- Sector detection
- Slot detection

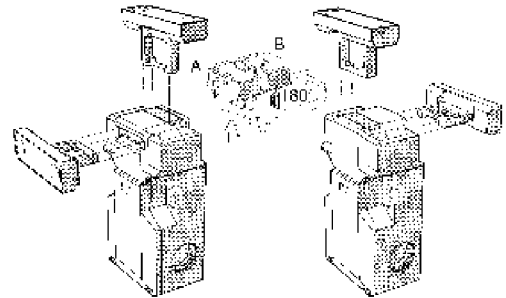
### Technical data - general

TÜV Nord  

Description	
Safety level IEC/EN 61508-1...7 EN 62061 EN ISO 13849-1	SIL3 SIL3 cat. 4/PL e
Power supply	24VDC +15%-25%
Protection class Eden Eden E	IP67 IP69K
Detection distance max Adam/Eva 15 ± 2 mm Adam E/Eva E 12 ± 2 mm Hysteresis approx. 1 mm	Flash 2 mm before red position. Flash 2 mm before red position.
Metal may have influence on detection distance. This can be prevented by protection plates, DA1.	
Minimum distance to metal when there is metal on one or more sides.	Adam/Eva Adam E/Eva E
	One 0 mm 0 mm
	More 2,5 mm 0 mm
Minimum distance between Eden pairs	50 mm
Cable	3 or 10 m, ø 5.7mm, black, PVC 5 x 0.34mm <sup>2</sup> + screen, UL 2464
Connector	M12: 5-pin male contact

# Sensors and switches

## JSNY5 - safety interlock switch



After opening the snap-on cover, the head portion can be removed (version A), after turning the head through 180° (version B) it can be replaced onto the body of the switch and be locked into position by closing the snap-on cover. This ensures 4 actuating positions are possible.

### Applications

- Gates
- Hatches

### Switch operational description

JSNY5 offers three contacts which gives both the two contacts needed for high safety level as well as a contact for the indication of operating status.

The advanced design offers the choice of four operating positions from only two actuator entries by simply rotating the head through 180°.

However, when installed and in its working condition only one entry can be used, ensuring no other element can tamper with the switch function.

When mounting the switch from the front two elongated holes are provided to aid alignment with two set screw holes for accurate fixing. Top fixing is also possible.

Three cable entries allow for a variety of cabling options including through wiring.

### Positive forced disconnected contacts

The design assures that the contacts will not fail or be held in a normally closed position, due to failure of the spring mechanism or the welding/sticking of the contacts.

### Protection from unauthorised or incidental access

To avoid unauthorised operation the JSNY5 switch is manufactured using multicoding to GS-ET 15. The switch cannot be defeated by screwdrivers, magnets or any other mechanism.

### Features

- 2 NC + 1 NO (actuator in)
- 4 actuating positions
- Actuator holding force 10 or 30 N

### Safety level

The positive forced disconnect contacts gives a high safety level. By combining the JSNY 5 with one of our suitable safety relays as for example from the RT-series, the safety PLC Pluto or Vital (Tina) the requirements for both hatch and gate switch supervision can be fulfilled. To obtain the same level of safety as Eden, two switches per gate are required.

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### Regulations and Standards

The JSNY5 is designed and approved in accordance with appropriate directives and standards. See technical data

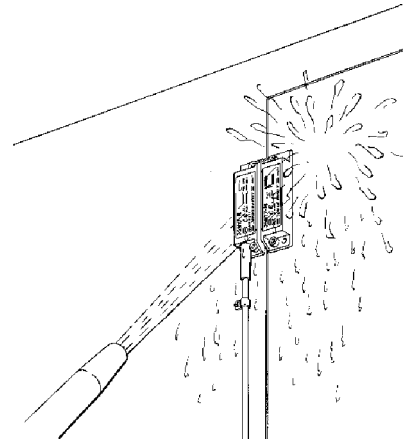


Selection	Product Hierarchy 4700006	
	Order Code	Price
Part No		
JSNY5A holding force 10 N	2TLA020022R0000	
JSNY5B holding force 30 N	2TLA020022R0100	
JSNY5 flexible key	2TLA020032R0600	
Contacts (actuator key inserted)	2 NC + 1NO (NC are direct opening action)	



# Sensors and switches

## JSNY7 - magnetic switch



JSNY7 is resistant to both dirt and water.

### Applications

- Gates
- Hatches
- Position control

### Features

- Small size
- IP67

### Switch operational description

The magnetic switch is designed to operate in dirty industrial environments and is certified to the highest level of safety regulation when working together with a suitable ABB Jokab Safety safety relay or Safety-PLC Pluto. The magnetic switch is small and resistant to both dirt and water, and has no dust collecting cavities making it useful in environments where hygiene is paramount. The small size of the switch makes it easy to position and hide on gates and hatches.

The magnetic switch has a long working life since no mechanical contact is made during operation.

### Contacts

The magnetic switch has one closing and one opening contact. Both contacts have to be monitored. The contacts may be monitored by either the RT9 safety relay or other suitable relays in the new RT-series, i.e. RT6, RT9 or Safety PLC Pluto.

### Protection from unauthorised or incidental access

To avoid unauthorised operation of the JSNY7 switch it is only possible to actuate the JSNY7R with the coded magnet, JSNY7M. Other magnets, screwdrivers and tools have no effect on the switch contacts.

### Safety level

The JSNY7 is approved to the highest level of safety regulations, PL e according to EN ISO 13849-1 together with safety relay in the RT-series or Pluto PLC.

### Regulations and Standards

The JSNY7 is designed and approved in accordance with appropriate directives and standards. See technical data.

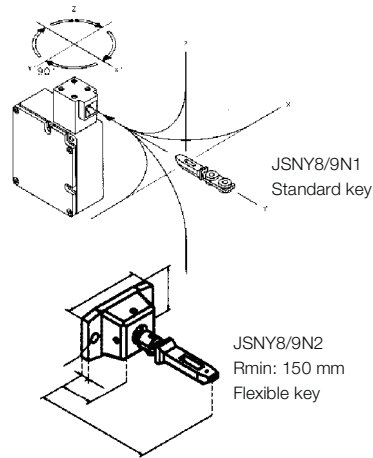


### Selection

Part No	Product Hierarchy 4700006	
	Order Code	Price
JSNY7R-3 Magnetic switch 3m cable	2TLA020023R0000	
JSNY7R-6 Magnetic switch 6m cable	2TLA020023R0100	
JSNY7R-10 Magnetic switch 10 m cable	2TLA020023R0200	
JSNY7M Magnetic switch	2TLA020024R0000	
Supply voltage max	30 VDC	
Protection class	IP67	

# Sensors and switches

## JSNY8 - safety interlock switch



### Applications

- Gates
- Hatches

### Features

- Robust design
- Universal installation
- 2 NC + 2 NC outputs
- 1000 N actuator holding force

### Description

The JSNY8 Safety Interlock Switch, in conjunction with the machine control system, enables gates/movable guards etc to be locked in their protective positions, thus preventing access to machinery until dangerous operations have ceased.

Applications include:

- processes which cannot be interrupted, such as welding.
- machinery with a long stopping procedure, such as paper machinery that requires a long braking operation.
- prevention of unauthorised access to a particular area.

The JSNY8 has 2NC + 2NC positive force disconnection contacts. The first pair closes when the actuator key is pushed into the head. The other pair closes when the locking mechanism is in the locked position. The head can be set in four positions, thus providing the safety device with four different operating positions. These are selected by twisting the head as shown in the diagram above. The leading edges of the actuator key are reinforced and bevelled in order to guide it properly into the hole. The JSNY8 is encased in a robust metal housing (IP67) providing a high level of protection to the internal operating components.

### Two versions

The JSNY8 is available in two basic versions, either with a spring lock or a magnetic lock.

In the spring lock (JSNY8S) version, the locking mechanism moves into the locked position directly when the door is closed and the actuator key is pushed into the lock. The actuator key can only be released and the gate opened by supplying operational voltage to the solenoid (E1-E2).

The JSNY8S also has a emergency 'unlocking' facility to enable the actuator key to be released without the energisation of the solenoid (E1-E2).

In the magnetic lock (JSNY8M) version, the locking mechanism is only in the locked position when the solenoid (E1-E2) is supplied with operating voltage. Release of the actuator key is only possible when the operating voltage is removed from the solenoid (E1-E2).

### Optional features

The following optional features are available:

- actuator to operate at smaller radius.
- customer specific applications.

### Safety level

The JSNY8 has double forced disconnection contacts to the actuator key and the locking mechanism. The actuator key has a triple coding design. To achieve maximum safety level in the connection to the machine's control system, it is recommended that the JSNY8 is monitored by an appropriate ABB Jokab Safety safety relay, Pluto safety-PLC or Vital. To obtain the same level of safety as Eden, two switches per gate are required.

### Regulations & standards

The JSNY8 is designed and approved in accordance with appropriate directives and standards. See technical data.

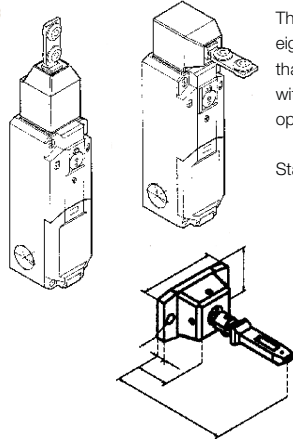


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Selection	Product Hierarchy 4700006	
	Order Code	Price
Part No		
JSNY8M 24DC	2TLA020030R0000	
JSNY8S 24DC	2TLA020030R0100	
JSNY8S 230AC	2TLA020030R0500	
JSNY8M 230AC	2TLA020030R1500	
JSNY8/9N1 standard key	2TLA020032R0400	
JSNY8/9N2 flexible key	2TLA020032R0500	
Enclosure	Metal housing	
Actuator holding force	1000 N	
Contacts		
actuator key inserted	2 NC	
locking mechanism, locked position	2 NC	
Enclosure class	IP67	
Operating voltage	24V DC, 230 V AC	

# Sensors and switches

## JSNY9 - safety interlock switch



The control unit offers eight operating positions that provide the actuator with eight different input options.

Standard key.

JSNY8/9N2  
Rmin: 150 mm  
Flexible key

### Applications

- Gates
- Hatches

### Features

- Compact and robust
- Universal installation
- 2x(1NO+1NC)
- Actuator holding force 1500 N
- Eight head configurations
- LED status indication (optional)



### Description

The JSNY9 is used for locking a gate/hatch, to prevent access to machinery, until hazardous operations have ceased.

Applications include:

- processes which cannot be interrupted, e.g. welding.
- machinery with a long stopping time, e.g. paper machinery which requires a long braking operation.
- prevention of unauthorised access to a particular area.

The JSNY9 is equipped with a 2 x (1NO + 1 NC) contact configuration, the first pair of contacts changeover when the key is inserted. The second pair of contacts changeover when the locking mechanism is in the locked position.

7

The JSNY9 switch is encased in a robust plastic housing and can be mounted either horizontally or vertically. The advanced design of the head provides eight possible key insertion options, this is achieved by mounting the head either vertically or horizontally on the base unit, as shown in the diagram. The location for the actuator key is reinforced and bevelled to ensure a smooth operation.

### Two versions

The JSNY9 switch is available in two basic versions, either with a spring lock or an electro-magnetic locking mechanism.

The JSNY9S (spring lock) switch operates immediately when the gate/hatch is closed, i.e. when the key actuator is inserted into the locking mechanism. The gate/hatch can be opened and the actuator key released only by supplying the operational voltage to the solenoid connections (E1 E2). The JSNY9S also has a manual emergency unlocking facility to enable authorised release of the actuator key.

In the JSNY9M (magnetic lock) version, the mechanism is only locked when the gate/hatch is closed i.e. the actuator key inserted and the solenoid (E1 E2) supplied with the operating voltage. The gate/hatch can only be opened when this operating voltage is removed

### Optional features

The following optional features are available:

- LED display, indicating the status of the actuator key, locking mechanism and contacts.
- Actuator to operate at smaller radii.
- Customer specific applications.

### Safety level

In order to achieve a high safety level, the JSNY9 switch is equipped with dual sets of contacts operated with a coded actuator key. In order to meet the required installation safety level it is recommended that the JSNY9 safety switch is monitored by an appropriate ABB Jokab Safety safety relay. To obtain the same level of safety as Eden, two switches per gate are required.

### Regulations & standards

The JSNY9 is designed and approved in accordance with appropriate directives and standards. See technical data.

Selection	Product Hierarchy 4700006	
	Order Code	Price
Part No		
JSNY9S 24V DC	2TLA020036R0100	9.23
JSNY9LA 24V UC	2TLA020036R0200	
JSNY9M 24V UC	2TLA020036R2100	
JSNY9MLA 24V UC	2TLA020036R3200	
JSNY9LA 24V UC	2TLA020036R0200	
Enclosure	Metal housing	
Actuator holding force	1500 N	
Contacts actuator in	1 NO + 1 NC	
Locking mechanism in locked position	1 NO + 1 NC (NC are direct opening action)	
Enclosure class	IP67	
Operating voltage	24 V AC/DC	



# Sensors and switches

## Magne - magnetic lock with indication



TÜV Nord **CE**

### Magnetic lock with indication

Magne is a magnetic lock that is designed for industrial applications and that can withstand harsh environments. As it is designed with no moving parts, it is durable and long lasting. Magne, with its electro-magnet, keeps a door locked with a holding force up to 1,500 N and also magnetic material does not attach to the magnetic surface when the power is off.

Use of M12 connectors makes it easy to connect several Magne units and Eden sensors in series enabling control and monitoring by either a Pluto safety PLC or a Vital safety controller. Via the connection cable it is also possible to obtain an indication signal informing if the Magne unit is locked or not.

### Accessories:

- Mounting kit for conventional door, with fitting and screws for assembly on ABB Jokab Safety Quick-Guard fencing system (5-15 mm door gap)
- Plastic handle
- Handle profile for mounting on a hinged door with ABB Jokab Safety's Quick-Guard fencing system (5-15 mm door gap).



Magne is easy to assemble, adjust and dismantle in and out of the T-slot of the Quick-Guard fencing system.

### Applications

- Electrical locking of doors and hatches to production applications that are sensitive to unintentional/unnecessary interruptions.
- For safety supervision the Magne 2 has an integrated Eden.

### Features

- No moving parts
- Strong Magnetic holding force: 1500N
- Can stand and operate in harsh environments
- Locked/unlocked indication. Possible to connect in series with Eden sensors
- No current peaks on activation
- Magne 2 in combination with a handle profile provides a complete door solution

### Selection

Selection		Product Hierarchy 4700006	
		Order Code	Price
Magne 1A	Process lock, Incl. anchor plate	2TLA042022R0000	
Magne 2A	Process lock with built-in Eden, incl. anchor plate	2TLA042022R1000	
Magne 1B	Process lock incl. anchor plate with built-in permanent magnet (30 N)	2TLA042022R0100	
Magne 2B	Process lock incl. anchor plate with built-in Eden and built-in permanent magnet (30 N)	2TLA042022R1200	
Magne 2Ax	Process lock with built-in Eden and 5-pin M12 connector for Urax, incl. anchor plate	2TLA042022R1300	
Magne 2Bx	Process lock with built-in Eden and 5-pin M12 connector for Urax, incl. anchor plate with built-in permanent magnet (30 N)	2TLA042022R1400	

### Accessories

JSM D21B	Assembly kit for anchor plate	2TLA042023R0100	
	Handle profile for Magne	2TLA042023R0200	
JSM D23	Fixture for sliding door	2TLA042023R0300	
JSM D24	Assembly kit for Eva	2TLA042023R0400	
	Anchor plate with permanent magnet	2TLA042023R1000	
	Handle for JSM D21B	2TLA042023R1000	

# Sensors and switches

## Dalton - process lock



### Applications

- Doors
- Hatches

### Advantages

- Small and robust
- Integrated with Eden
- Flexible installation
- High enclosure classification – IP 67
- Withstands severe environments
- Low current consumption
- Status information with LED on the lock housing and in the cable connection.

### Dalton – the intelligent process lock

Dalton is a locking unit that is intended for use in preventing unnecessary process stoppages, i.e. it is not a safety lock. It can be used either as a free-standing lock or integrated with Eden as a safety sensor. In the unlocked state the door is held closed by a ball catch and in locked state the balls are mechanically blocked so the lock tongue can not be pulled out. If necessary, the holding force of the ball catch can be adjusted. The device only allows to lock when the ball latch is centred around the lock tongue, and when Eva is with Adam (depending on version). When an input is supplied with voltage, the ball catch is locked.

7

Dalton is easily connected with an M12 connector. The Tina junction block can be used for distribution of both the safety and locking functions. The Dalton status is indicated by LEDs and can also be read by a PLC via the information output.

### Dalton has a modular structure

The Dalton process lock has a modular structure and can be combined in different ways depending on position, installation and function. You choose the lock housing, lock tongue and fixing plate yourself to create a complete Dalton.

### Installation

Dalton offers many different installation possibilities as the lock tongue may enter the ball catch from three directions. In order to ensure that Dalton works without any problems, the ball catch must be resting, i.e. the balls not pressed in by the lock tongue when the door is in closed position. Dalton's brackets are therefore made to ensure easy adjustment of the lock tongue and ball latch positions.

### Selection

#### Description

Locking function M - Locked when energised L - Only ball latch

Operating voltage 24 VDC +25/-20%

Enclosure classification IP67

Holding force Unlocked 25-100 N Locked 2000 N



Dalton is easy to install, adjust and dismantle in the Quick-Guard fence system's T-slots.

# Sensors and switches

## Knox - safety lock



### Applications

- Safe locking of door to a cell/line with long stopping time.
- Prevents unintentional interrupts of processes

### Advantages

- Double locking function as specified in PL e/ cat. 4 (EN ISO 13849-1)
- Withstands harsh environments
- Status information with LEDs on the lock and at cable connection
- Controlled to locked and unlocked positions-position remains in the event of power failure
- Electronic connection only on the door frame
- Robust design

### Knox - double safety lock

Knox is a double lock that complies with the highest safety level (two lock cylinders with monitored positions) that can be used both as a safety and process lock. The locking function is electrically controlled and is bi-stable, i.e. it retains its position (unlocked/locked) in the event of a power failure. Dual signal for unlocking is safe at both short-circuits and cable breaks.

The handles operate as they would on a normal door but the exterior handle also have a reset function, why a separate reset

button is not necessary and the interior handle that can be used for emergency opening also in locked state. The design and durability of the lock mean that it is ideal for harsh environments as the sensors are non-contact and the lock is manufactured of stainless steel. Knox is available in a number of adaptations such as left-hung door, right-hung door, inward and outward opening, with manual unlocking and for sliding door.

### Selection

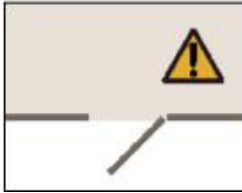
Description	Part No	Product Hierarchy 4700006	
		Order Code	Price
Knox door part for inward-opening right-hung door	Knox 1B-R v2	2TLA020105R5200	
Knox door part for inward-opening left-hung door	Knox 1B-L v2	2TLA020105R5300	

### Accessories

Distribution block for two Knox	Tina 12A	2TLA020054R1800	
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# Sensors and switches

## Knox - safety lock



Knox door part 1A-R and frame part 2A



Knox door part 1A-L and frame part 2A



Knox door part 1B-R and frame part 2A



Knox door part 1B-L and frame part 2A



Knox door part 1F-R and frame part 2A

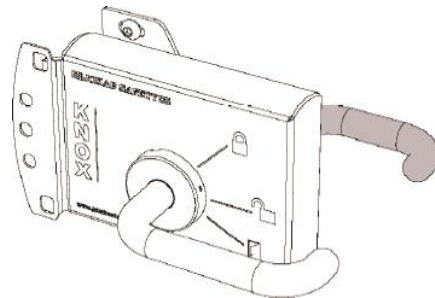


Knox door part 1F-L and frame part 2A

## Models and ordering data

		Product Hierarchy 4700006	
Door part		Order Code	Price
Knox 1B-R v2	Knox door part for inward-opening right-hung door	2TLA020105R5200	
Knox 1B-L v2	Knox door part for inward-opening left-hung door	2TLA020105R5300	
Knox 1AX-R v2	Knox door part for outward-opening right-hung door with the option for manual unlocking from the outside	2TLA020105R5800	
Knox 1AX-L v2	Knox door part for outward-opening left-hung door with the option for manual unlocking from the outside	2TLA020105R5900	
Knox 1F-R v2	Knox door part for sliding door that opens to the right. Incl. additional fastening fixtures for the frame.	2TLA020105R6000	
Knox 1F-L v2	Knox door part for a sliding door that opens to the left. Incl. additional fastening fixtures for the frame.	2TLA020105R6100	
Knox 1BX-R v2	Knox door part for inward-opening right-hung door with the option for manual unlocking from the outside	2TLA020105R6200	
Knox 1BX-L v2	Knox door part for inward-opening left-hung door with the option for manual unlocking from the outside	2TLA020105R6300	
Knox 1FX-R v2	Knox door part for sliding door that opens to the right with the option for manual unlocking from the outside. Incl. additional fastening fixtures for the frame.	2TLA020105R6400	
Knox 1FX-L v2	Knox door part for sliding door that opens to the left with the option for manual unlocking from the outside. Incl. additional fastening fixtures for the frame.	2TLA020105R6500	
Frame part			
Knox 2X v2	Knox process lock, no duplicate unlocking signal, with 5-pin M12 contact	2TLA020105R2300	
Accessories			
Tina 12A	Distribution block for two Knox	2TLA020054R1800	

7



Door part Knox1



Frame part Knox 2

# Control devices

## Why you should use control devices

for the machine operator to be able to directly start and stop dangerous machine movement

### Three-position device

Three-position devices, hold-to-run devices and enabling devices are used during trouble-shooting, programming and test running when no other safety components are possible or suitable. The device is held in the hand and the operator can in an emergency situation either press harder or entirely release the device to stop the machine.



In an emergency situation the operator can either press harder or release the three-position device to stop the machine.

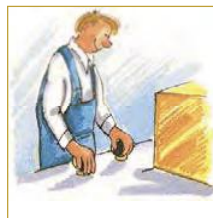


### Two hand control device

A two-hand control device is used when it must be guaranteed that the operator's hands will be kept outside the risk area. If there is a risk that someone else other than the operator can reach into the machine without the operator seeing it, the safety device must be supplemented by something more, e.g. a light beam.

To be able to operate the machine with the two-hand device, all the buttons on the device have to be operated within 0.5 seconds of each other. This is called concurrence. All the buttons also have to be returned to their initial position before one can start again. If any button is released during the machine movement the machine will be stopped. Using the stopping time one can calculate the necessary safety distance. A safety distance of less than 100 mm must not be used.

The highest safety level is assured by connecting the buttons of the two-hand device to a safety relay. The safety relay checks for concurrence and that all the buttons have returned to their initial position before a new start can be made. The safety relay also gives a stop signal if any of the buttons are released.



The two-hand device protects against "after-grasp"; if the operator by reflex tries to enter or reach into a machine during the dangerous machine movement.



7

### Foot operated switches

A foot operated switch is used when the operator has to hold the material during processing. The pedal must have a safety cover to prevent unintentional start. For seated work one must also have a foot support to facilitate the operator holding his foot on the pedal's off position.

The highest safety level is secured by monitoring the pedal with a safety relay.



The foot operated switch is used when the operator has to hold the material with both hands during processing.

# Control devices

## JSHD4 three position devices



### Applications

- Troubleshooting
- Test running
- Programming

### Advantages

- Ergonomic
- LED information
- Adaptable
- Cheat Safe
- Adapted for AS-i

### Pre-assembled three position devices

#### Selection

Part No	Product Hierarchy 4700007	
	Order Code	Price
JSHD4-1AA	2TLA019995R0000	
JSHD4-1AC	2TLA019995R0100	
JSHD4-2AB	2TLA019995R0200	
JSHD4-2AB-A	2TLA019995R0300	
JSHD4-2AD	2TLA019995R0400	
JSHD4-2AD-A	2TLA019995R0500	
JSHD4-2AF	2TLA019995R0600	
JSHD4-2AF-A	2TLA019995R0700	
JSHD4-2AH	2TLA019995R0800	
JSHD4-2AH-A	2TLA019995R0900	
JSHD4-3AB	2TLA019995R1200	
JSHD4-3AB-A	2TLA019995R1300	
JSHD4-3AD	2TLA019995R1400	
JSHD4-3AD-A	2TLA019995R1500	
JSHD4-3AE	2TLA019995R1600	
JSHD4-3AF	2TLA019995R1700	
JSHD4-3AF-A	2TLA019995R1800	
JSHD4-3AG	2TLA019995R1900	
JSHD4-3AH	2TLA019995R2000	
JSHD4-3AH-A	2TLA019995R2100	
JSHD4-4AB	2TLA019995R2400	
JSHD4-4AB-A	2TLA019995R2500	
JSHD4-4AD	2TLA019995R2500	
JSHD4-4AD-A	2TLA019995R2700	
JSHD4-4AF	2TLA019995R2800	
JSHD4-4AF-A	2TLA019995R2900	
JSHD4-4AH	2TLA019995R3000	
JSHD4-4AH-A	2TLA019995R3100	
JSHD4-5AB	2TLA019995R3400	
JSHD4-5AB-A	2TLA019995R3500	
JSHD4-5AD	2TLA019995R3600	
JSHD4-5AD-A	2TLA019995R3700	
JSHD4-5AF	2TLA019995R3800	
JSHD4-5AF-A	2TLA019995R3900	
JSHD4-5AH	2TLA019995R4000	
JSHD4-5AH-A	2TLA019995R4100	





# Control devices

## JSHD4 design a three position device for your needs

### 1. Choose between five different top units



JSHD4-1



JSHD4-2



JSHD4-3



JSHD4-4



JSHD4-5

### 2. Choose a bottom part suitable for your assembly



AA, AH, AJ



AB



AC, AD



AF, AG



AE

### 1. Choose between five different top units

Description	Product Hierarchy 4700007	
	Order Code	Price
JSHD4-1	2TLA020006R2100	
JSHD4-2 LEDs, front button, top button	2TLA020006R2200	
JSHD4-3 LEDs	2TLA020006R2300	
JSHD4-4 LEDs, front button	2TLA020006R2400	
JSHD4-5 LEDs, top button	2TLA020006R2500	

### 2. Choose a bottom part suitable for your assembly

AA – with cable gland	2TLA020005R1000	
AB – with Cannon connection	2TLA020005R1100	
AC – with M12 connection (5 poles)	2TLA020005R1200	
AD – with M12 connection (8 poles)	2TLA020005R1300	
AE – with M12 connection (8 poles) and emergency stop	2TLA020005R1400	
AF – with M12 connection (4 poles) and 2 AS-i nodes (for front and top button)	2TLA020005R1500	
AG – with M12 connection (4 poles) and 1 AS-i node (without front and top button)	2TLA020005R1600	
AH – with cable gland and PCB with 10 screw connections	2TLA020005R1700	
AJ – with cable gland and PCB with 16 screw connections	2TLA020005R1800	

### 3. Choose hand recognition for making your three position device cheat protected (option)

Anti-tamper PCB	2TLA020005R0900	
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### 4. Choose a bottom plate (option)

JSM50G, bottom plate for Safety Interlock switch JSNY5	2TLA020205R6300	
JSM50H, bottom plate for non-contact sensor Eden (Eva)	2TLA020205R6400	



3 2TLA020005R0900



4 2TLA020205R6300



4 2TLA020205R6400

# Control devices

## JSHD4 combination and accessories

### Available combinations of bottom - and top parts

Type	Function	JSHD4-1	JSHD4-2	JSHD4-3	JSHD4-4	JSHD4-5
AA	without Cheat Safe	JSHD4-1AA	-	-	-	-
	with Cheat Safe	-	-	-	-	-
AB	without Cheat Safe	-	JSHD4-2AB	JSHD4-3AB	JSHD4-4AB	JSHD4-5AB
	with Cheat Safe	-	JSHD4-2AB-A	JSHD4-3AB-A	JSHD4-4AB-A	JSHD4-5AB-A
AC	without Cheat Safe	JSHD4-1AC	-	-	-	-
	with Cheat Safe	-	-	-	-	-
AD	without Cheat Safe	-	JSHD4-2AD	JSHD4-3AD	JSHD4-4AD	JSHD4-5AD
	with Cheat Safe	-	JSHD4-2AD-A	JSHD4-3AD-A	JSHD4-4AD-A	JSHD4-5AD-A
AE	without Cheat Safe	-	-	JSHD4-3AE	-	-
	with Cheat Safe	-	-	-	-	-
AF	without Cheat Safe	-	JSHD4-2AF	JSHD4-3AF	JSHD4-4AF	JSHD4-5AF
	with Cheat Safe	-	JSHD4-2AF-A	JSHD4-3AF-A	JSHD4-4AF-A	JSHD4-5AF-A
AG	without Cheat Safe	-	-	JSHD4-3AG	-	-
	with Cheat Safe	-	-	-	-	-
AH	without Cheat Safe	-	JSHD4-2AH	JSHD4-3AH	JSHD4-4AH	JSHD4-5AH
	with Cheat Safe	-	JSHD4-2AH-A	JSHD4-3AH-A	JSHD4-4AH-A	JSHD4-5AH-A



JSHK0 12 pole connector for JSHD4.



Cable, available in different lengths.



Spiral cable, available in different lengths.



JSM55 Wall bracket for three-position device.



JSM5B Wall bracket for interlock switches and three-position device.



JSHD4 protection coat



Cable drum

## Accessories

### Selection

#### Description

M12-C01 M12 5-pole female, straight

M12-C03 M12 8-pole female, straight

JSHK0 12-pole connector for JSHD4

### Product Hierarchy 4700007

Order Code	Price
2TLA020055R1000	
2TLA020055R1600	
2TLA020003R0300	

#### Cable with 5 conductors:

C5 Cable 5x0,34 cut to length	2TLA020057R0000	
C5 Cable 5x0,34 cut to length	2TLA020056R1000	
C5 Cable 5x0,34 cut to length	2TLA020056R1400	
C5 Cable 5x0,34 cut to length	2TLA020057R1000	
C5 Cable 5x0,34 cut to length	2TLA020056R4000	
C5 Cable 5x0,34 cut to length	2TLA020056R4100	

#### Cable with 12 conductors:

HKC12 Cable 12x0,25 cut to length	2TLA020003R5500	
HKC12 Cable 12x0,25 cut to length	2TLA020003R4700	
HKC12 Cable 12x0,25 cut to length	2TLA020003R4800	
HKC12 Cable 12x0,25 cut to length	2TLA020003R4900	
HKC12 Cable 12x0,25 cut to length	2TLA020003R5000	
HKC12 Cable 12x0,25 cut to length	2TLA020003R5100	
HKC12 Cable 12x0,25 cut to length	2TLA020003R5200	
HKC12 Cable 12x0,25 cut to length	2TLA020003R3500	
HKC12 Cable 12x0,25 cut to length	2TLA020003R3600	
HKC12 Cable 12x0,25 cut to length	2TLA020003R5300	
HKC12 Cable 12x0,25 cut to length	2TLA020003R5400	

#### Brackets:

JSM55 Wall bracket for three position device	2TLA040005R0500	
JSM5B Wall bracket for 2 JSNY5 (ordered separately)	2TLA040005R0700	

#### Other:

JSHD4 protection coat	2TLA020200R4600	
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# Control devices

## Safeball™ one and two hand devices



### Applications

- Presses
- Punches
- Fixtures
- Shearing machines

### Advantages

- Ergonomic
- Low activation force
- Flexible mounting
- Several grip possibilities
- Highest safety level
- Two channel switching in each hand

## SAFEBALL™

### Unique world wide two hand device

Safeball™ consists of a spherical ball containing two embedded pushbutton switches, one on each side of the ball. By using this pushbutton configuration, the risk of unintentional activation is minimised and the device is simple and ergonomic to use.

Safeball™ can be utilised for either One hand (one Safeball™) or Two hand (two Safeballs™) applications. In either application, and in order to meet the required level of safety, the Safeball™ switches are monitored by specified/certified ABB Jokab Safety relays.

In the case where Two hand control is used, both Safeballs™ i.e. all four pushbuttons have to be activated within 0.5 seconds. If one or more pushbuttons are released a Stop signal is given to the machine. In order to provide the highest level of safety the Safeball™ design provides the operator with a dual switching function and short-circuit supervision in each hand.

Each Safeball™ is ergonomically designed and has both its cover and actuator made of environmentally-friendly polypropylene. The design allows for comfort of use for all hand sizes and operation from numerous gripping positions. Mounting of the Safeball™ is also very flexible allowing the device to be mounted in the most ergonomic position for the operator.

### When can a two hand or one hand control be used ?

A Two hand control can be used when it is necessary to ensure that the operator is outside and must be prevented from reaching into the hazardous area. If the operator decides, after the start signal has been given to the machine, to make an 'after-grasp' i.e. try to adjust the part that has been placed into the machine, then a dual stop signal is given to the machine.

A one hand control device can be used when the operator cannot reach the hazardous area with his/her free hand or on less dangerous machines.

### Highest safety level

The Safeball™ is certified by Inspecta in Sweden for use as a Two hand control device, when used with a JSBR4 ABB Jokab Safety Safety relay or Pluto Safety-PLC, in accordance with the highest safety level in standard EN 574 (type IIIc).

### Two hand device adapted for AS-i

The two hand device, Safeball also comes in a version adapted for direct attachment to the AS-i bus.

Selection	Product Hierarchy 4700007	
	Order Code	Price
Description		
JSTD1-A Safeball 1 NO + 1 NC with 2 m cable	2TLA020007R3000	
JSTD1-B Safeball Safeball 1 NO + 1 NC with 0.2 m cable	2TLA020007R3100	
JSTD1-C Safeball 1 NO + 1 NC with 10 m cable	2TLA020007R3200	
JSTD1-E Safeball 2 NO 0,2 m cable	2TLA020007R3400	
Protection class: IP67. Not intended for use under water		

# Control devices

## Safeball™ JSTD25 two hand devices



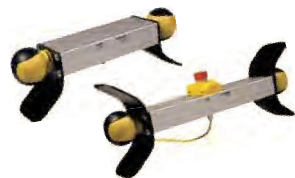
### Applications

- Presses
- Punches
- Fixtures
- Shearing machines

### Advantages

- Ergonomic
- Low activation force
- Flexible mounting
- Several grip possibilities
- Highest safety level
- Two channel switching in each hand

With a JSTD25 two hand control station you have a prepared two hand unit that is easy to install, while utilising the good ergonomics of the Safeball. There are several variants to meet differing needs. All versions meet EN 574, EN 954-1 and EN 13849-1 and are supplied with the internal connections made, to simplify installation.



### Selection

Description	Part No	Product Hierarchy 4700007	
		Order Code	Price
<b>JSTD25 for fixed installation</b>			
2 Safeball control station	JSTD25A	2TLA020007R5000	
2 Safeball control station, JSMC5	JSTD25D	2TLA020007R5300	
2 Safeball control station and emergency stop button	JSTD25B	2TLA020007R5100	
2 Safeball control station JSM C5 and emergency stop button	JSTD25E	2TLA020007R5400	

### JSTD25 for mobile installation

2 Safeball control station, 5 pole M12 connection	JSTD25F	2TLA020007R6000	
2 Safeball control station, 8 pole M12 connection	JSTD25H	2TLA020007R6300	
As JSTD25F but can be customised	JSTD25G	2TLA020007R6200	

### JSTD25 for mobile installation with built in Eden sensor

2 Safeballs mounted on the ends, shield over hand guards built-in Eva sensor for position control	JSTD25P-1	2TLA020007R6500	
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### Accessories - JSTD25

Stand with spacer ring for JSTD25 A-E (JSTS30 without spacer ring). Height 850 to 1100mm	JSTS31	2TLA020007R4100	
Angled ball joint for installation of a Safeball on a table or a steel housing	JSM C5	2TLA020007R0900	
4 m long spiral cable for JSTD25P-1	JSTK40S	2TLA020007R6700	
8 m long spiral cable for JSTD25P-1	JSTK80S	2TLA020007R6800	

# Control devices

## FOX foot operated safety switches



### Features

- Control device that frees the hands
- Three-position pedal
- High safety level
- Robust

In order to fulfil the need for a small and easy to install E-stop, Smile has been developed. The size of the device makes it possible to be installed wherever you want. With M12 connections or cable and centralised mounting holes Smile is very easy to install, especially on aluminium extrusions. Smile is available for E-stops in both dynamic and static safety circuits i.e. for interfacing to Vital system/Pluto safety PLC and Safety relays. Each version is available with either one or two M12 connections or cable. Two M12 connectors are used to enable the connection of E-stops in series, which is often used with dynamic safety circuits fulfilling safety category 4. In the top of the Smile Tina E-stop unit, LEDs show the actual status according to the dynamic system:

Green = everything is OK, Red = E-stop activated.

Flashing Red/Green = Stop activated from another preceding device.

Smile is also available with black push button and used as a safety stop.

See section on safety stops.

### Three-position function, Fox 31/32

A safe three-position foot operated device means that:

1. Stop signals are provided in the top and bottom positions.
2. Start/ready signals for separate starting are provided in a distinct middle position.
3. After a stop in the bottom position a start or clear signal cannot be given before the reset knob has been operated and then the pedal pushed into its middle position.

### Two-position function, Fox 21/22

A two-position foot operated device means that:

1. A stop signal is provided in the top, or pedal released, position.
2. A start/ready signal for separate starting is given in the bottom, or fully depressed, position

Safety cover protects against unintentional actuation.

A robust metal safety cover prevents unintentional machine start by a person or falling objects, thereby fulfilling the standards which demand this. The robust aluminium safety cover can withstand harsh environments.

### Safety level

A high safety level is secured by monitoring the pedal's double contacts with one of our safety relays.

Furthermore the third 'emergency' position of the Fox 31/32 pedal enhances safety.

### Selection

Description	Part No	Product Hierarchy 4700007	
		Order Code	Price
FOX 21 Two position single footswitch	20-160-21	2TLA020007R5000	
FOX 22 Two position double footswitch	20-160-22	2TLA020007R5300	
FOX 31 Three position single footswitch	20-160-01	2TLA020007R5100	
FOX 32 Three position double footswitch	20-160-02	2TLA020007R5400	

# Emergency stops

## Why you need emergency stops



So that anyone is able to stop a machine during a malfunction or if someone is in danger

### How do I recognise an E-stop?

E-stop buttons shall according to relevant standards be red with a yellow background. An emergency stop grab wire shall be red for high visibility. A sign that indicates the location of the E-stop shall be green with a white picture and possibly with text in the local country's language.

### How shall an E-stop stop the machine?

An E-stop shall stop the machine as quickly as possible. To obtain a quick stop one either removes the power directly or one lets a frequency converter 'run down' and afterwards after a little delay, remove the power. An E-stop shall not create other hazards. Therefore a risk analysis must be made for the E-stop to be correctly connected.

7

## Requirements for E-stops are stated in the following standards and regulations

### 2006/42/EC The Machinery Directive

Clause 1.2.4.3 in Annex 1 gives requirements for the emergency stop function for new machines. See also clause 1.2.2 Control devices. (see chapter "Standard and Regulations")

### Council Directive 89/655/EEC (with amendments) concerning the minimum safety and health requirements for the use of work equipment by workers at work

Clause 2.4 gives the requirements for the emergency stop function for older machines. See also clause 2.1. (see chapter "Standard and Regulations")

### EN ISO 13850 Safety of machinery - Emergency stop Principles for design

A harmonized standard that gives technical specifications for the requirements in the Machinery Directive. Could also be used for older machinery.

### EN 60204-1 Safety of Machinery - Electrical equipment of machines – Part 1: General requirements.

Harmonized standard that gives requirements for the electrical equipment of machinery including the emergency stop actuator/function. See clauses 9.2.2 and 9.2.5.4.2.

# Emergency stops

## Inca1 & Inca1 Tina emergency stops for enclosures



### Advantages

- Terminal blocks
- Emergency push button up to cat. 4/PL e acc. to EN ISO 13849-1
- Only 53 mm's construction depth
- Push button IP65, connector IP20
- Available as safety stop (black pushbutton)
- With LED info in print
- With LED info in push button (Inca1 Tina)
- Info output (Inca1 Tina)

**Inca1** is an emergency stop designed for installation in 22.5 mm holes on cabinets. "INCA 1" has potential free contacts for connection to safety relays. The connection is made in cabinets via a removable terminal which also have excellent measuring points. Inca 1 is also available with a black pushbutton and used as a safety stop.

**Inca1 Tina** is also available with electronic adjustment of the dynamic safety loop for connection to the Vital and Pluto units. The connection is made in equipment cabinets via a removable terminal block which also has marked measuring points. Inca 1 Tina is also available with black push button and is used in this case as a safety stop.



### Selection

Description	Part No	Product Hierarchy 4700008	
		Order Code	Price
INCA 1	30-054-01	2TLA030054R0100	
INCA 1 Tina	30-054-00	2TLA030054R0000	
INCA 1S	30-054-03	2TLA030054R0300	
INCA 1S Tina	30-054-02	2TLA030054R0200	
Mounting:	22,5mm diameter		
Operating voltage (LED):	INCA 1: 24 VDC INCA 1 Tina: 24VDC +15% -25%		



# Emergency stops

## Smile emergency stops with LED



### Advantages

- Emergency push button up to cat. 4/PL e acc. to EN ISO 13849-1
- Robust
- Push button IP65, enclosure IP67
- Available as safety stop (black pushbutton)
- With LED info in push button



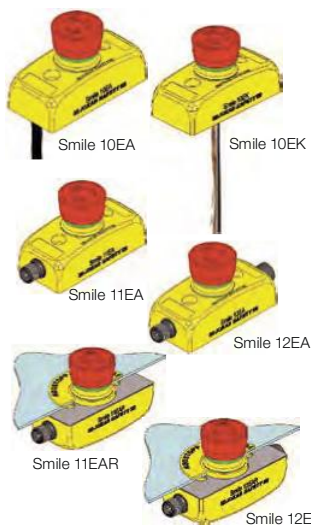
### Smile small and cost effective E-stop

In order to fulfil the need for a small and easy to install E-stop, Smile has been developed. The size of the device makes it possible to be installed wherever you want. With M12 connection/s or cable and centralised mounting holes Smile is very easy to install, especially on aluminium extrusions. Smile is available for E-stops in both dynamic and static safety circuits i.e. for interfacing to Vital/Pluto and Safety relays. Each version is available with either one or two M12 connections or cable. At the top of Smile, a LED shows the current status as: green = protection OK, red = this emergency stop has been pressed and if the LED is off, an emergency stop earlier in the loop has been actuated. Smile is also available with black push button and is used as a safety stop. See section on safety stops.

Smile emergency stop has six different variants:

1. Smile 10EA has a 1 m cable connected through the base of the unit.
2. Smile 10EK has four 1 m short connecting leads through the base of the unit. No LED.
3. Smile 11EA has a five-pole M12 connector on one end of the unit.
4. Smile 12EA has two five-pole M12 connectors, one on each end of the unit.
5. Smile 11EAR has one 5-pole M12 connector at one end.
6. Smile 12EAR has two 5-pole M12 connectors at each end.

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### Selection

Description	Part No	Product Hierarchy 4700008	
		Order Code	Price
Smile 10EA with 1 m cable	30-051-04	2TLA030051R0400	
Smile 10EK with short connecting leads (No LED connection)	30-051-06	2TLA030051R0600	
Smile 11EA with M12 male connector	30-051-00	2TLA030051R0000	
Smile 12EA with male and female M12 connectors	30-051-02	2TLA030051R0200	
Smile 11EAR	30-051-01	2TLA030051R0100	
JST2 termination for Smile 12	-	2TLA030051R1300	

# Emergency stops

## Smile Tina emergency stops with LED



### Advantages

- Emergency push button up to cat. 4/PL e acc. to EN ISO 13849-1
- Light grids, emergency stop and Eden in the same safety loop together with Vital or Pluto gives cat. 4/PL e acc. to EN ISO 13849-1
- With LED indication on push button
- Robust
- Info-signal from each emergency stop
- Push button IP 65, housing IP67
- Available as safety stop (black push button)



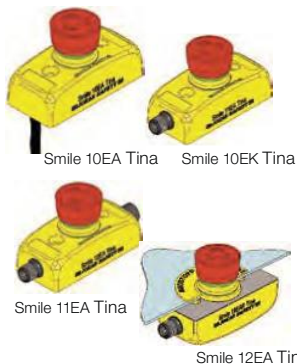
### Smile small and cost effective E-stop

In order to fulfil the need for a small and easy to install E-stop, Smile has been developed. The size of the device makes it possible to be installed wherever you want. With M12 connections or cable and centralised mounting holes Smile is very easy to install, especially on aluminium extrusions. Smile is available for E-stops in both dynamic and static safety circuits i.e. for interfacing to Vital system/Pluto safety PLC and Safety relays. Each version is available with either one or two M12 connections or cable. Two M12 connectors are used to enable the connection of E-stops in series, which is often used with dynamic safety circuits fulfilling safety category 4. In the top of the Smile Tina E-stop unit, LEDs show the actual status according to the dynamic system: Green = everything is OK, Red = E-stop activated. Flashing Red/Green = Stop activated from another preceding device. Smile is also available with black push button and used as a safety stop. See section on safety stops.

Smile emergency stop has four different variants:

1. Smile 10EA Tina has a 1 m cable connected via the base of the unit.
2. Smile 11EA Tina has a five-pole M12 connector on the end of the unit for connecting the ABB Jokab Safety cable.
3. Smile 12EA Tina has two five-pole M12 connectors, one on each end of the unit for connecting the ABB Jokab Safety cable.
4. Smile 11EAR Tina has one 5-pole M12 connector at one end for connection of cable from ABB Jokab Safety.

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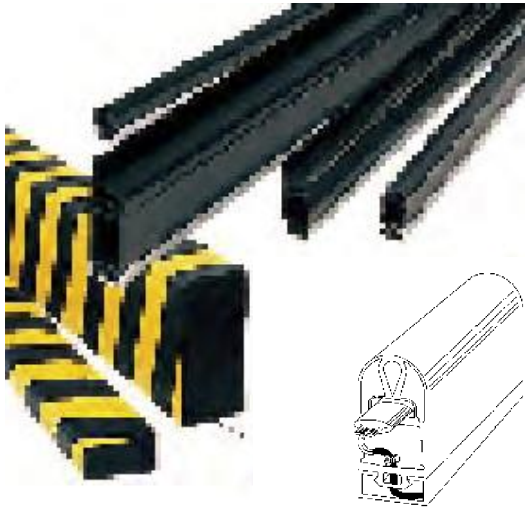
### Selection

Description	Part No	Product Hierarchy 4700008	
		Order Code	Price
Smile 10EA Tina with 1 m connection cable	30-050-04	2TLA030050R0400	
Smile 11EA Tina with M12 male connector	30-050-00	2TLA030050R0000	
Smile 12EA Tina with male and female M12 connectors	30-050-02	2TLA030050R0200	
Smile 11EAR Tina	30-050-01	2TLA030050R0100	
Smile 11SA Tina	30-050-05	2TLA030050R0500	

Note. There are versions for use with relay technology (without Tina).



# Contact rails and bumpers



## Utilisation

- Protection against squeezing accidents on moving machine parts and automatic doors

## Advantages

- Can be connected to a safety relay, Vital or Pluto
- Supplied in customised lengths
- IP 65
- Simple assembly on site
- Lengths up to 25 m

## Safety contact rails and bumpers as safety devices for potentially dangerous machines

### Safety contact rails

Contact edges are used as protection against crushing injuries, for example, moving machine parts, automatic doors.

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### Contact edges with cast-in contact strips

Our new contact edges consist of a rubber profile with a cast-in contact strip. They are made up simply using connection plugs that are glued to the ends together with a terminal cap. The rubber profile is fitted on an aluminium profile.

Available in EPDM design. Supplied in lengths up to 25 m.

### Contact edges with contact strips SKS 18

The contact edge consists of a rubber profile with a safety contact strip inside. The contact edge is fitted on an aluminium profile.

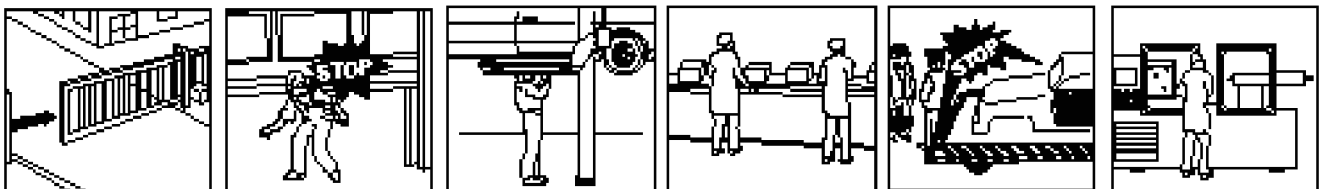
The special design of rubber profiles of EPDM or NBR rubber protect the inner contact strip in the best way possible against damage and also allow for a contact angle exceeding  $\pm 45^\circ$ . Normally supplied in lengths up to 25 m.

### Bumpers

Bumpers are employed on automatic production lines to minimise danger to both people and machines. The large foam rubber cushions enable long practical braking and run-through distances, thus enabling designers to optimise protection for both personnel and machines.

The safety contact strips are mounted inside aluminium profiles which are, in turn, protected by the large foam cushions that are glued to the carrier profile and then sprayed with a thin film of polyurethane which makes the bumper waterproof and helps to minimise wear and tear.

The bumpers are delivered mounted to the carrier profile in ordered lengths (0,2 m – 3 m).



# Contact rails and bumpers

## Technical data - Contact Rails

Mechanical load max <sup>1</sup>	500 N
Actuating angle (DIN) <sup>1</sup>	2x 20°
Mechanical life <sup>1</sup>	10 <sup>5</sup>
Max. operate temp. range <sup>2</sup>	-20°C to +55°C
Max. temperature range	-25°C to +70°C
Protection classification	IP 65
Max. Electrical load	24V 100mA
Resistance	0.6 Ohm/m
Conductors	GP: 2x 0.38 mm <sup>2</sup> GE: 2x 0.34 mm <sup>2</sup>
Conductors insulation material	GP: PVC GE: PUR matt blackt

(1) According to DIN 31006-2 (GS - BE - 17)

(2) Not including DIN 31006-2 (GS - BE - 17)

## Technical data - Bumpers

Dimensions - Length	Max. 3000mm
Protection rating	IP 65
Connection cable	2 x 2m; 2 x 0,34 mm <sup>2</sup> PU

## Selection

Description	Part No	Product Hierarchy 4700008	
		Order Code	Price
Safety contact rail 25-25 EPDM	76-025-25	2TLJ076025R2500	
Safety contact rail 25-40 EPDM	76-025-40	2TLJ076025R4000	
Safety contact rails 25-25 NBR	76-125-25	2TLJ076125R2500	
Safety contact rails 25-40 NBR	76-125-40	2TLJ076125R4000	
Production cost 2+2m cable	76-009-01	2TLJ076009R0100	
Production cost 5+5 m cable	76-009-05	2TLJ076009R0500	
Production cost 7+7 m cable	76-009-08	2TLJ076009R0800	
Production cost 10+10 m cable	76-009-10	2TLJ076009R1000	
Bumper ASB 53/100 black	76-200-01	2TLJ076200R0100	
Bumper ASB 100/200 black	76-200-02	2TLJ076200R0200	
Bumper ASB 150/300 black	76-200-03	2TLJ076200R0300	
Bumper ASB 200/400 black	76-200-04	2TLJ076200R0400	
Bumper ASB 53/100 black/yellow	76-200-05	2TLJ076200R0500	
Bumper ASB 100/200 bl./yl.	76-200-06	2TLJ076200R0600	
Bumper ASB 150/300 bl./yl.	76-200-07	2TLJ076200R0700	
Bumper ASB 200/400 bl./yl.	76-200-08	2TLJ076200R0800	

# Safety mats



Certified according to EN 1760-1.

## Application:

- Personal protection within the dangerous areas around presses, robots, production lines, machines etc.

## Features:

- Can be connected to a safety relay, Vital or Pluto
- Very durable
- IP 67



## The ASK Safety Mat is used as personal protection within the dangerous areas.

When connected to a suitable monitoring system stepping on the Safety Mat will immediately be detected causing dangerous machine movements to be stopped. This is made possible by the detection of electrical contacts closing within the sandwich construction of the Mat. As a load-bearing component the Mat is made with a bottom plate of either synthetic material or metal. The Safety Mat is provided with a ribbed surface, which is fixed by adhesive to the surface of the Safety Mat.

The safety mat and its connection cabling can be supervised by a suitable ABB Jokab Safety safety relay, which provides PL d.

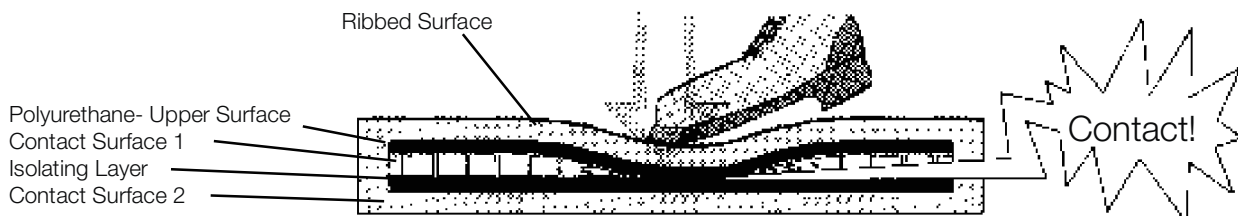
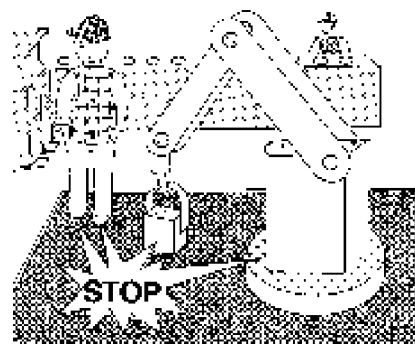
isolating layer. The internal switching surface is cast into a durable polyurethane to protect against moisture, and this is then covered with a top layer of ribbed or chequered rubber mat or a thin aluminium plate.

Attachment to the floor is by means of a ramped edge trim or a z-profile made of aluminium. The ramp profile has a channel for connection cables.

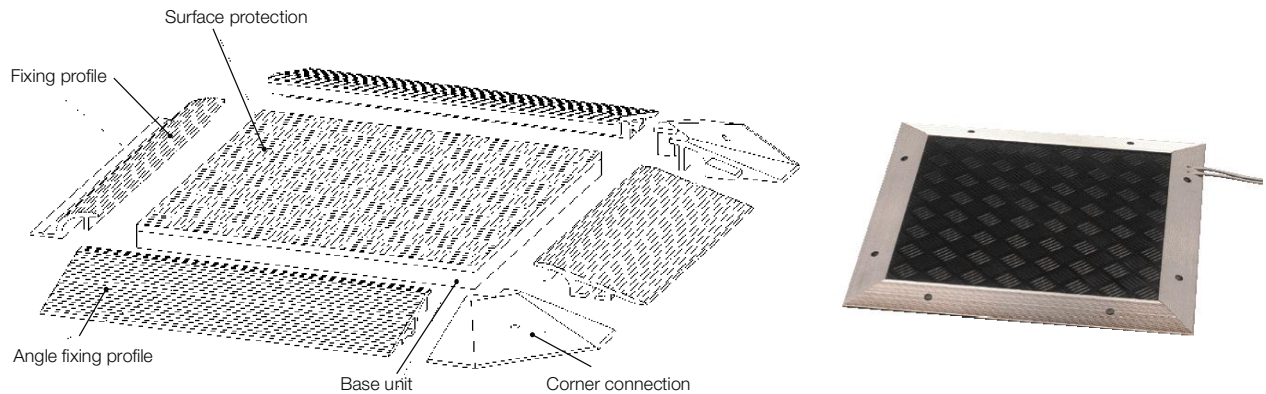
Custom Mats can be made, i.e. special shape, resistant against harsh industrial environments (mineral oil, acid, bleach etc.) or with a non-slip surface or M12-contacts.

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The basic Mat construction consists of a ground plate of either PVC, Aluminium or Stainless Steel which provides protection against uneven ground etc. The Mat is made up of a sandwich construction, the pressure contact switch consisting of two conducting sheets separated from each other by a webbed



# Safety mats



Technical data - general	
Max. area	Entire mat = 2350 x 1350 mm 10 m <sup>2</sup> (divided mat) Rec. relation max 3:1 Min 100x100 mm
Height	10mm without ribbed surface max 14.5 mm with ribbed surface
Inactive Area	Nominally 10 mm from Mat edge
Material	Black polyurethane, other colours on request
Protection Class	IP 67
Ambient Air Temperature	0°C to +60°C
Chemical Resistance Oil, grease 10% acid 10% alkaline (caustic) solutions	good resistant resistant
Cable	2 x 5 m, 2 x 0,34 mm <sup>2</sup> , PU sheathed
Mechanical Life	> 1,5x10 <sup>6</sup> load shifting

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## Selection

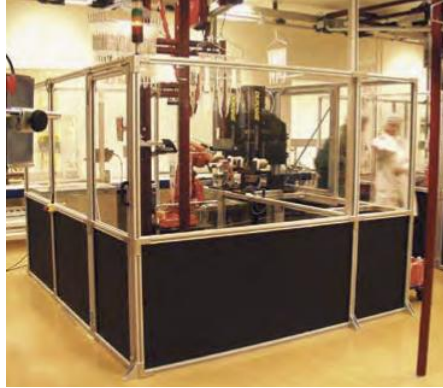
Description	Part No	Product Hierarchy 4700009	
		Order Code	Price
Safety mat ASK-1U4.4-RF 750x1000mm, 5+5m cables	76-310-05	2TLJ076310R0500	
Safety mat ASK-1U4.4-RF 1000x1000mm, 5+5m cables	76-310-06	2TLJ076310R0600	
Safety mat ASK-1U4-RF 1000x1500mm, 5+5m cables	76-310-07	2TLJ076310R0700	
Safety mat ASK-1T4.4-RF 750x1000mm, 5+5m cables	76-310-10	2TLJ076310R1000	
Safety mat ASK-1T4.4-RF 1000x1000mm, 5+5m cables	76-310-11	2TLJ076310R1100	
Safety mat ASK-1T4.4-RF 1000x1500mm, 5+5m cables	76-310-12	2TLJ076310R1200	
RS 14, Ramp rail in aluminium	76-300-05	2TLJ076300R0500	
BS 14 profile for ASK and KMS in alumi	76-300-08	2TLJ076300R0800	
Corner piece	76-300-09	2TLJ076300R0900	

# Fencing systems

## Quick-Guard



Quick-Guard Standard assembled with mesh.



Quick-Guard Standard with black and transparent Polycarbonate in-fill panels as used for medical applications.



Quick-Guard E with few components and easy to angle at up to 45°.

### Adaption and Modification

Quick-Guard is a very flexible fencing system consisting of a minimum of different components, e.g. aluminium profiles, patented brackets, net-locks, mesh, solid or noise reduction panels. Using these components there are almost no limitations as to what can be built. Quick-Guard fencing costs little to assemble and modify.

### Assembly

Due to our patented screw-lock system, we can supply all brackets pre-mounted with fixing screws and nuts. No holes need to be drilled in the profiles and all cutting is straight. This makes assembly and modification very easy.

### Two versions of Quick-Guard

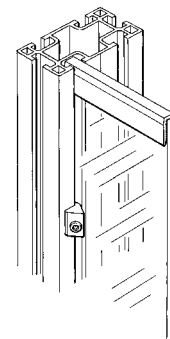
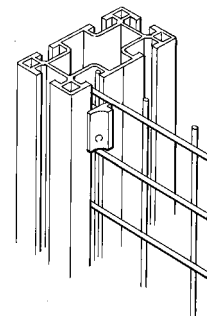
The Quick-Guard fencing system is available in two versions, Quick-Guard (Standard) and Quick-Guard E which also can be combined. The fencing systems are also easy to adjust when production equipment is modified and/or moved.

### Proposal and ordering

By utilising our AutoCAD-based SafeCAD program we are able to make system designs in 3-D very quickly. Drawings, cutting lists, etc. are generated from SafeCAD and the drawings can also be used for installation purposes.

Our policy - To create systems that are environmentally friendly and provide ergonomic working conditions.

Quick-Guard is environmentally friendly. All components in the Fencing System can easily be disassembled and reused. All materials in the Fencing System are 100% recyclable. Quick-Guard can also provide a pleasing ergonomic working environment.



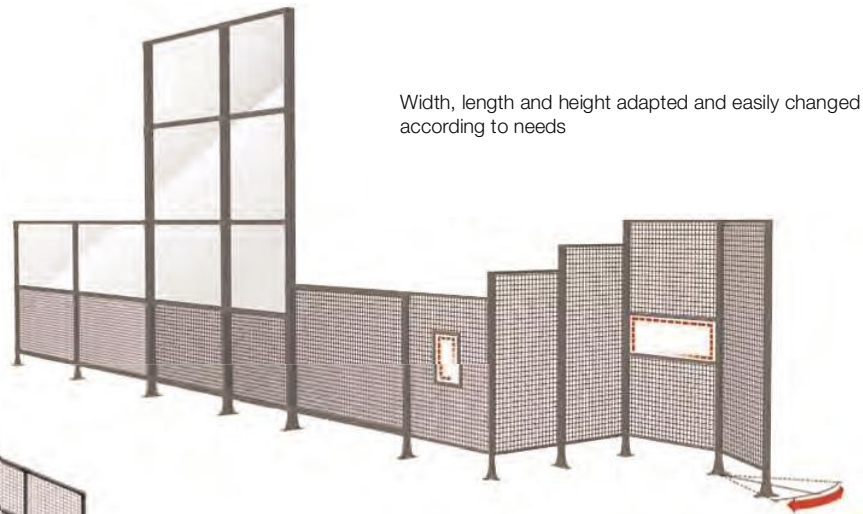


# Fencing systems Quick-Guard

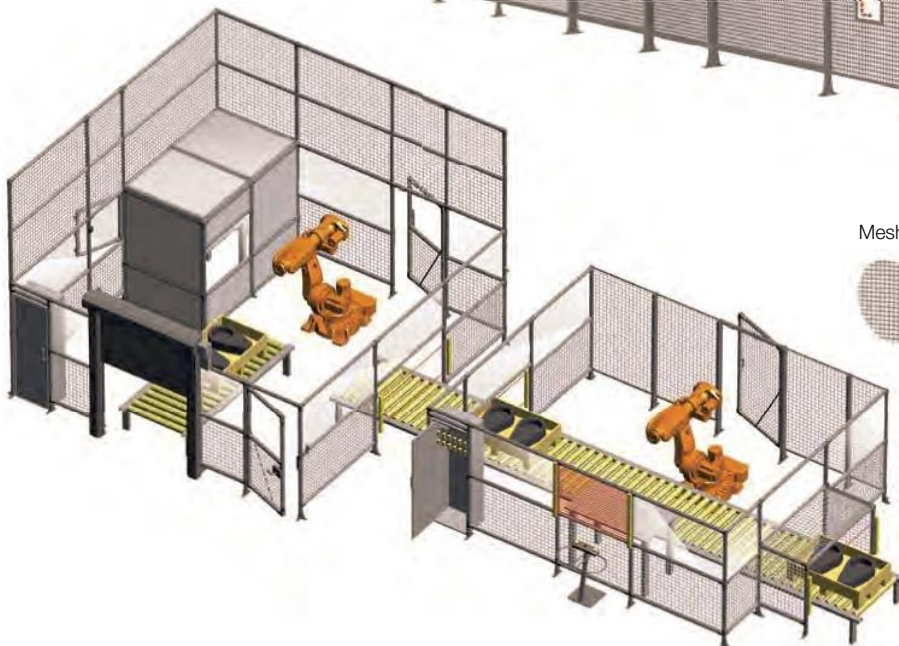
A flexible and stable fencing system which is easy to install



Fixings with pre-mounted screws and nuts mean easy assembly



Width, length and height adapted and easily changed according to needs



# Fencing systems

## Quick-Guard

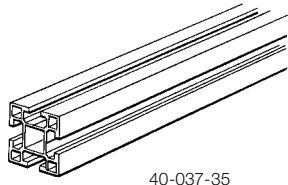
### Selection

### Product Hierarchy 4700009

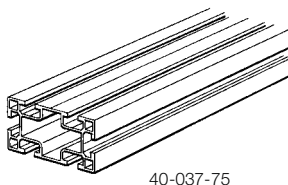
Description	Part No	Order Code	Price
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#### Fencing profiles

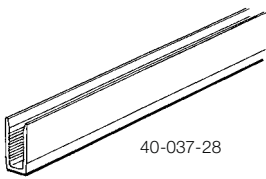
JSM A44A Al. extrusion 44x44mm, untreated, per m	40-037-97	2TLJ040037R9700	
JSM A44A Al. extrusion 44x44mm, L=1400mm	40-037-98	2TLJ040037R9800	
JSM A44A Al extr. 44x44mm per m	40-037-35	2TLJ040037R3500	
JSM A44A Al extr. 44x44mm, L=1100mm	40-037-36	2TLJ040037R3600	
JSM A44A Al extr. 44x44mm, L=2000mm	40-037-37	2TLJ040037R3700	
JSM A44A Al extr. 44x44mm, L=2200mm	40-037-38	2TLJ040037R3800	
JSM A44A Al extr. 44x44mm, L=2400mm	40-037-39	2TLJ040037R3900	
JSM A44A Al extr. 44x44mm, L=2500mm	40-037-40	2TLJ040037R4000	
JSM A44A Al extr. 44x44mm, L=6000mm	40-037-41	2TLJ040037R4100	
JSM A4488A Al extr. 44x88mm per m	40-037-42	2TLJ040037R4200	
JSM A4488A Al extr. 44x88mm, L=2200mm	40-037-44	2TLJ040037R4400	
JSM A4488A Al extr. 44x88mm, L=6000mm	40-037-45	2TLJ040037R4500	
JSM A4416 Al. extrusion 44x16.5mm per m	40-037-70	2TLJ040037R7000	
JSM A4416 Al. extrusion 44x16.5mm, L=6000mm	40-037-74	2TLJ040037R7400	
JSM A8888 Al. extrusion 88x88mm per m	40-037-75	2TLJ040037R7500	
JSM A8888 Al. extrusion 88x88mm, L=6000mm	40-037-79	2TLJ040037R7900	
JSM A4426 Al. extrusion 44x26mm per m	40-037-80	2TLJ040037R8000	
JSM A4426 Al. extrusion 44x26mm, L=6000mm	40-037-81	2TLJ040037R8100	



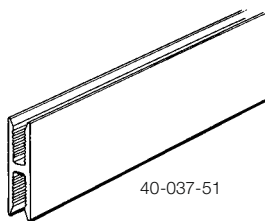
40-037-35



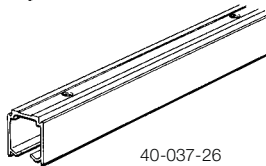
40-037-75



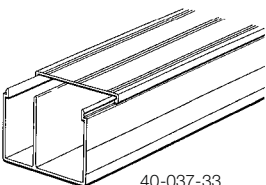
40-037-28



40-037-51



40-037-26



40-037-33

#### Fencing U profiles

JSM A12 Edge protection U-profile per m	40-037-28	2TLJ040037R2800	
JSM A12-1076 U-profile L=1076mm	40-037-27	2TLJ040037R2700	
JSM A12-1476 U-profile L=1476mm	40-037-46	2TLJ040037R4600	
JSM A12-2000 U-profile L=2000mm	40-037-47	2TLJ040037R4700	

#### Fencing H profiles

JSM A13 H-profile, natural anodised for Express per m	40-037-50	2TLJ040037R5000	
JSM A13-1076 H-profile natural anodised for Express, L=1076mm	40-037-51	2TLJ040037R5100	
JSM A13-1076 H-profile natural anodised for Express, L=1476mm	40-037-52	2TLJ040037R5200	
JSM A13-1076 H-profile natural anodised for Express, L=2020mm	40-037-53	2TLJ040037R5300	

#### Guide rails

JSM A3130B guide rail incl. mounting components	40-037-26	2TLJ040037R2600	
JSM A56 Guiding rail in alu. incl. screw, L=2m	40-037-08	2TLJ040037R0800	
JSM A56 Guiding rail in alu. incl. screws	40-037-49	2TLJ040037R4900	
JSM A56-6000 Guiding rail in alu. L=6m incl. screws	40-037-48	2TLJ040037R4800	

#### Cable ducting

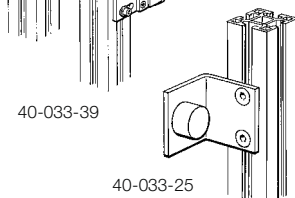
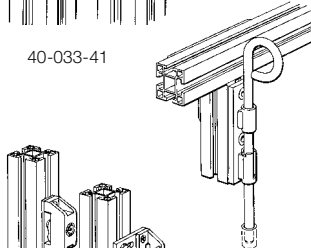
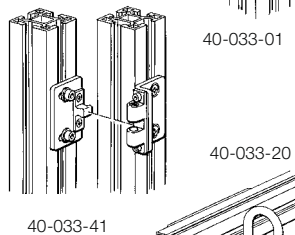
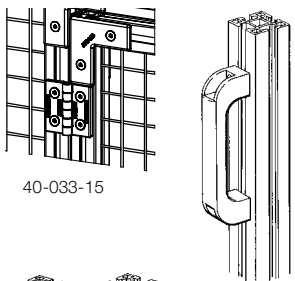
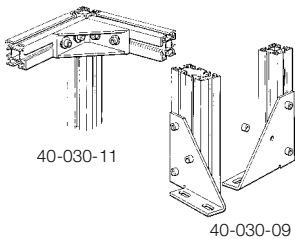
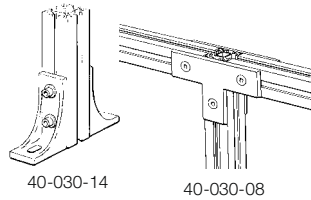
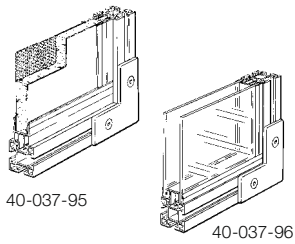
JSM A11 Coverstrip alu. L=2m	40-037-12	2TLJ040037R1200	
JSM A25A Cable duct 44x25mm, w. holes incl. cap, L=2m	40-037-13	2TLJ040037R1300	
JSM A25B Cable duct 44x25mm incl. cap, L=2m	40-037-14	2TLJ040037R1400	
JSM A60A Cable duct 44x60mm w. holes incl. cap, L=2m	40-037-15	2TLJ040037R1500	
JSM A60B Cable duct 44x60mm incl. cap, L=2m	40-037-16	2TLJ040037R1600	
JSM A88 Cable duct 88x68mm, L=2m	40-037-33	2TLJ040037R3300	
JSM A4488A Al extr. 44x88mm, L=2000mm	40-037-43	2TLJ040037R4300	
JSM A4488A Al extr. 44x88mm, L=2000mm	40-037-43	2TLJ040037R4300	

7



# Fencing systems

## Quick-Guard



### Selection

Description	Part No	Product Hierarchy 4700009	
		Order Code	Price
<b>Acoustic damping profiles</b>			
JSM AS1 Al-Profile for 25mm sound absorbing panel, per m	40-037-95	2TLJ040037R9500	
JSM AS2 Al-Profile for 2x5mm PC sheet, per m	40-037-96	2TLJ040037R9600	
JSM AS1 Al-Profile for 25mm sound abs. panel, L=2m	40-037-09	2TLJ040037R0900	
JSM AS2 Al-Profile for 2x5mm PC sheet, L=2m	40-037-10	2TLJ040037R1000	

### Fittings

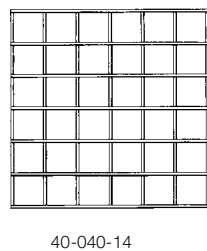
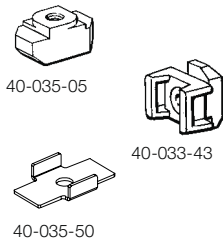
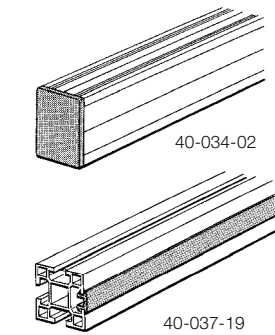
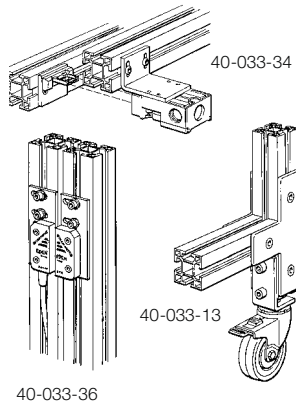
JSM 39-K Floor/angle bracket Alu. Premounted	40-030-14	2TLJ040030R1500	
JSM 30B-K Floor bracket	40-030-06	2TLJ040030R0700	
JSM 30B-K1 Angle bracket with four screws	40-030-11	2TLJ040030R1300	
JSM 31B-K Small angular bracket	40-030-13	2TLJ040030R1400	
JSM 36-K1 Floorbracket in steel for JSM A4488A	40-030-09	2TLJ040030R1000	
JSM 36-K2 Floorbracket in steel for JSM A44A	40-030-10	2TLJ040030R1100	
JSM 32B-K L-bracket premounted	40-030-07	2TLJ040030R0800	
JSM 33B-K T-bracket premounted	40-030-08	2TLJ040030R0900	
JSM 37 Support clip Express	40-033-31	2TLJ040033R3100	
JSM 35-K Hinge w. screw c-c47	40-033-14	2TLJ040033R1500	
JSM 34B-K I-bracket premounted with screws	40-030-15	2TLJ040031R0600	

### Door components

JSM D1A Hinge incl screw c-c62	40-033-15	2TLJ040033R1600	
JSM D2 Handle incl. screws	40-033-01	2TLJ040033R0200	
JSM D3 Doorcloser incl mounting comp	40-033-02	2TLJ040033R0400	
JSM D11B Ball latch	40-033-41	2TLJ040033R4100	
JSM D11C Ball latch for sliding door	40-033-42	2TLJ040033R4200	
JSM D16 Key for JSM D15 Cam lock	40-033-44	2TLJ040033R4400	
JSM D4K Fitting EDEN/EDEN E Stainless steel	40-033-45	2TLJ040033R4500	
JSM D10A Pullock extended	40-033-21	2TLJ040033R2200	
JSM D10 Pullock	40-033-20	2TLJ040033R2100	
JSM D10B Door bolt with spring	40-033-38	2TLJ040033R3800	
JSM D15 Cam lock excl. key, polyamid black	40-033-39	2TLJ040033R3900	
JSM D13A Doorstop angular	40-033-26	2TLJ040033R2700	
JSM D13B Doorstop horizontal	40-033-27	2TLJ040033R2800	
JSM D14 Crossbar L= 1160 mm	40-033-28	2TLJ040033R3000	
JSM D5 Suspension wheel	40-033-04	2TLJ040033R0500	
JSM D6 Sliding element, rect.	40-033-05	2TLJ040033R0600	
JSM D7 Sliding element, round	40-033-06	2TLJ040033R0700	
JSM D8 Sliding element, guide	40-033-07	2TLJ040033R0800	
JSM D12 Guiding pin vertical	40-033-22	2TLJ040033R2300	
JSM D12A Guiding pin horizontal	40-033-23	2TLJ040033R2400	
JSM D12B Guiding bracket	40-033-24	2TLJ040033R2500	
JSM D13 Doorstop vertical	40-033-25	2TLJ040033R2600	
JSM D9 Guide roller w. locking mechanism	40-033-08	2TLJ040033R0900	
JSM D4A Fittings for JSNY5 conv. opening door	40-033-09	2TLJ040033R1000	
JSM D4B Fittings for JSNY5 switch fittings	40-033-10	2TLJ040033R1100	
JSM D9-K Guide roller w. Lock mechanism 75/79 incl. angle	40-033-11	2TLJ040033R1200	

# Fencing systems

## Quick-Guard



### Selection

Description	Part No	Product Hierarchy 4700009	
		Order Code	Price

#### Door components cont.

JSM D9A Guide roller 75/79	40-033-12	2TLJ040033R1300	
JSM D9A-K Guide roller 75/79 incl. angle	40-033-13	2TLJ040033R1400	
JSM D4H Fitting for ADAM/EVA incl. accessories	40-033-36	2TLJ040033R3600	
JSM D4AA Fittings for JSNY5	40-033-34	2TLJ040033R3400	
JSM D4D Fittings for JSNY8 sliding door	40-033-17	2TLJ040033R1800	
JSM D4E Fitting for JSNY7M/R	40-033-18	2TLJ040033R2000	
JSM D4G Fittings for JSNY7	40-033-33	2TLJ040033R3300	
JSM D4C Fittings for JSNY8/9 conventional door	40-033-16	2TLJ040033R1700	

#### Terminal caps and strips

JSM L1A Terminal cap yellow for JSM A44A	40-034-00	2TLJ040034R0000	
JSM L2 Term. cap for JSM A25 grey	40-034-01	2TLJ040034R0100	
JSM L3 Term. cap for JSM A60 grey	40-034-02	2TLJ040034R0200	
JSM L1B Terminal cap grey for JSM A44A	40-034-03	2TLJ040034R0300	
JSM L4A Terminal cap yellow for JSM A4488A	40-034-04	2TLJ040034R0400	
JSM L4B Terminal cap grey for JSM A4488A	40-034-05	2TLJ040034R0500	
JSM T3A Coverstrip yellow, L=2m	40-037-31	2TLJ040037R3100	
JSM T3B Coverstrip grey, L=2m	40-037-32	2TLJ040037R3200	
JSM T2A Wide cover strip yellow	40-037-19	2TLJ040037R1900	

#### Accessories

JSM M5B Specialnut M5	40-035-04	2TLJ040035R0400	
JSM M6B Specialnut M6	40-035-05	2TLJ040035R0500	
JSM M8B Specialnut M8	40-035-06	2TLJ040035R0600	
JSM M4B Specialnut M4	40-035-07	2TLJ040035R0700	
JSM X1 Cable tie 2.5-7.8mm, nylon black UV stable, 10pcs	40-033-43	2TLJ040033R4300	
JSM B4C Centering plate M4 Steel galvanised	40-035-50	2TLJ040035R5000	
JSM B5C Centering plate M5 Steel galvanised	40-035-51	2TLJ040035R5100	
JSM B6C Centering plate M6 Steel galvanised	40-035-52	2TLJ040035R5200	
JSM B8C Centering plate M8 Steel galvanised	40-035-53	2TLJ040035R5300	

#### Surfaces

JSM YN40W1 Welded mesh black, 40x40x3.5mm, 2020x865mm	40-040-13	2TLJ040040R1300	
JSM YN40W2 Welded mesh black, 40x40x3.5mm, 1074x1816mm	40-040-14	2TLJ040040R1400	
JSM YN40W3 Welded mesh black, 40x40x3.5mm, 1074x2016mm	40-040-15	2TLJ040040R1500	
JSM YN40W9 Welded mesh black, 40x40x3.5mm, cut to size	40-040-16	2TLJ040040R1600	
JSM YN40WE2 Stainless steel, 40x40x3.5mm, 1074x1816mm	40-040-18	2TLJ040040R1800	
JSM YN40WE9 Stainless steel, 40x40x3.5mm, cut to size	40-040-19	2TLJ040040R1900	
JSM YN40W4 Welded mesh black, 40x40x3.5mm, 1474x2016mm	40-040-20	2TLJ040040R2000	
JSM YN40W5 Welded mesh black, 40x40x3.5mm, 1474x1816mm	40-040-21	2TLJ040040R2100	
JSM YN40WE1 Stainless steel, 40x40x3.5mm, 2020x864mm	40-040-25	2TLJ040040R2500	
JSM YN40W6 Welded mesh black, 40x40x3.5mm, 2020x754mm	40-040-26	2TLJ040040R2600	
JSM YN40W7 Welded black mesh, 40x40x3.5mm, 2020x1174mm	40-040-27	2TLJ040040R2700	
JSM YN40W10 Welded black mesh 40x40x3,5m	40-040-28	2TLJ040040R2800	
JSM YN40W11 Welded black mesh 40x40x3,5m	40-040-29	2TLJ040040R2900	

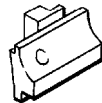
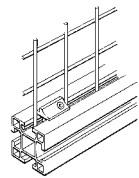
# Fencing systems

## Quick-Guard

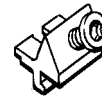
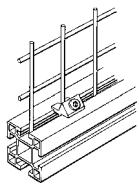
### Selection

### Product Hierarchy 4700009

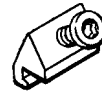
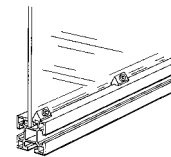
Description	Part No	Product Hierarchy 4700009	
		Order Code	Price
<b>Surfaces cont.</b>			
JSM NL2 Netlock in PA f welded	40-031-06	2TLJ040031R0800	
JSM NL3 Netlock f. welded mesh	40-031-08	2TLJ040031R0900	
JSM YPC5A1 PC sheet 5mm, uncoloured, 2020x865mm	40-039-10	2TLJ040039R1000	
JSM YPC5A2 PC sheet 5mm, uncoloured, 2020x1175mm	40-039-11	2TLJ040039R1100	
JSM YPC5A9 PC sheet 5mm, uncoloured, cut to size	40-039-12	2TLJ040039R1200	
JSM YPC4A9 PC sheet 4mm, uncoloured, cut to size	40-039-16	2TLJ040039R1600	
JSM YPC5A3 PC sheet 5mm, uncoloured, 1076x1816mm	40-039-17	2TLJ040039R1700	
JSM YPC5A4 PC sheet 5mm, uncoloured, 1076x2016mm	40-039-18	2TLJ040039R1800	
JSM YPC5A5 PC sheet 5mm, uncoloured, 960x1698mm	40-039-19	2TLJ040039R1900	
JSM YPC3AC9 PC for welding, dark brown 3mm, cut to size	40-039-24	2TLJ040039R2400	
JSM YPC3AC1 PC for welding, dark brown 3mm, 2050x3000mm	40-039-25	2TLJ040039R2500	
JSM YLA25A1 Sound absorbing panel 25mm, white/gal, 1963x1200mm	40-039-26	2TLJ040039R2600	
JSM YGP1A9 Steel panel 1.0mm, X-reinforced, per m2	40-039-07	2TLJ040039R0700	
JSM PL1A Securing strip L=842mm	40-038-01	2TLJ040038R0100	
JSM PL1B Securing strip L=1152mm	40-038-02	2TLJ040038R0200	
JSM PL1C Securing strip L=2000mm	40-038-03	2TLJ040038R0300	
JSM PL1D Securing strip L=732mm	40-038-04	2TLJ040038R0400	
JSM G2 Cellular rubber for securing glass, self-adhesive	40-038-06	2TLJ040038R0600	
JSM PL2A Securing strip L=842mm, for 4mm sheets	40-038-07	2TLJ040038R0700	
JSM PL2B Securing strip L=1152mm, for 4mm sheets	40-038-08	2TLJ040038R0800	
JSM PL2C Securing strip L=2000mm, for 4mm sheets	40-038-09	2TLJ040038R0900	
JSM PL2D Securing strip L=732mm, for 4mm sheets	40-038-10	2TLJ040038R1000	
JSM PL3 Securing component for 5mm infill panels	40-038-11	2TLJ040038R1100	



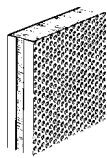
40-031-06



40-031-08



40-038-11



40-039-26

# Terms and Conditions

- (k) costs in connection with interruption of operation, or
  - (l) any special, incidental or consequential loss or damage, howsoever caused even if ABB was advised of the possibility of them in advance.
- 15.2. To the maximum extent permitted by law, and notwithstanding anything to the contrary in this contract, ABB's total liability in respect of any and all claims for damages or losses, caused by breach of contract, warranty, guarantee, indemnity, tort (including negligence), strict liability, statutory duty or otherwise, which may arise in connection with its performance or non-performance under this contract shall not exceed in the aggregate the total purchase price.
- 15.3. The Purchaser acknowledges that the contents of this Article 15 have been especially brought to the Purchaser's attention, and agree the exclusions and limitations on liability are reasonable in the circumstances.
- 16. LIMITATION PERIOD
- 16.1. Subject to law as regards personal injury and death, the Purchaser shall have no claim against ABB, in contract or in tort, in relation to anything performed or delivered under this contract (including claims for defective Products, services or goods), unless ABB has been notified in writing of such claim within twenty-four (24) months of delivery of the Product.
- 17. TERMINATION
- 17.1. Should
  - (a) the Purchaser's payments be overdue by more than fourteen (14) days;
  - (b) a breach of the contract occurs in the circumstances set out in Article 11.1(d) or in Article 19.1;
  - (c) proceedings be commenced to wind up the Purchaser (except for the purpose of solvent amalgamation or reconstruction);
  - (d) any composition or arrangement with the Purchaser's creditors be made;
  - (e) the Purchaser be put into administration, or if a receiver is appointed;
  - (f) the Purchaser stops or suspend payment of its debts or is unable to, or has no real prospect of being able to, or admits an inability to, pay its debts as they fall due or fails to satisfy any judgment debt in whole or in part within fourteen (14) days; or
  - (g) the Purchaser ceases or threatens to cease to carry on the whole or a substantial part of its business or is dissolved;ABB shall be entitled (without incurring any liability to the Purchaser) to terminate the contract immediately by notice in writing to the Purchaser, and thereupon to recover any loss or damage ABB has suffered or incurred as a result of such termination.
- 18. EXCLUSION OF THIRD PARTY RIGHTS
- 18.1. The parties do not intend that a person who is not a party to this contract shall have any rights to enforce any term of this contract.
- 19. MISCELLANEOUS
- 19.1. The Purchaser shall acquaint itself and comply with ABB's Code of Conduct as displayed on ABB's website (<http://www.abb.com>) as may be updated or modified from time to time.
- 19.2. This contract constitutes the complete understanding between the parties and save in respect of fraud supersedes all previous representations, negotiations and agreements in respect thereof. Neither party shall be bound by any terms other than as expressly provided in this contract or as subsequently agreed between the parties in writing.
- 19.3. The Purchaser shall not use the name or logo of ABB or product designations on any letter heading, publication, advertisement or other literature without prior written approval of ABB, such approval shall be at ABB's sole discretion.
- 19.4. The Purchaser may not subcontract, transfer or assign any of its rights or obligations in connection with this contract.
- 19.5. The invalidity, illegality or unenforceability of any provision of this contract shall not affect the validity of the remaining provisions. If any provision proves to be invalid, illegal or unenforceable, the parties shall replace such provision by a valid new one having an effect as close as possible to the original provision.
- 20. GOVERNING LAW
- 20.1. This contract shall in all respects be governed by and construed in accordance with the laws of England and Wales. The parties agree that the United Nations Convention On Contracts For The International Sale Of Goods 1980 shall not apply to this contract (even if the UK or any part thereof should accede to the said convention).

# Terms and Conditions

9. LIABILITY FOR DEFECTS
- 9.1. Except as expressly set out in Orgalime S2000 and this Addendum, all conditions, warranties and representations, implied by statute, common law or otherwise, in relation to the supply, non supply or delay in supplying the Products are excluded to the fullest extent permitted by law and the warranties, as stipulated in Clauses 22-36 and Article 9.2, are exclusive and in lieu of all other warranties, conditions, terms, representations, statements, undertakings and obligations whether expressed or implied by statute, common law, custom, usage or otherwise, all of which are excluded to the fullest extent permitted by law.
- 9.2. Save as stipulated in Clauses 22-36, the necessary repair, replacement or re-performance shall constitute ABB's total liability to the Purchaser for defects in design, material or workmanship.
10. FORCE MAJEURE
- 10.1. Should a Force Majeure event occur, the delivery date(s) shall be extended by a period equal to the duration of the Force Majeure event plus a reasonable time to overcome the consequences and all additional costs and expenses incurred by ABB shall be paid by the Purchaser in addition to the purchase price.
- 10.2. For the elimination of any doubt, "circumstances beyond the control of the parties", (cf. Clause 39), shall be deemed to include, without limitation, any acts of God, act of terrorism, sanction, blockage, import restriction or any other act or failure to act of any state or national government authority.
11. EXPORT RESTRICTIONS AND NON-AUTHORISED USE
- 11.1. Unless expressly agreed otherwise in writing by ABB, the Product is provided on strict condition that:
- the Product is solely for civil use;
  - the Product is not to be supplied to any country whether directly or indirectly or for any application where such supply or application is prohibited by any law or regulation binding or effective in that country, in the UK, the US or the country of manufacture;
  - the Product will not in any way be installed, used or applied in or in connection with the operation of any nuclear facilities such as but not limited to nuclear power plants, nuclear fuel manufacturing plants, uranium enrichment plants, spent nuclear fuel stores or research reactors; and
  - whenever ABB so requests, the Purchaser shall provide ABB with an end-user certificate, which shall be on such terms and in such form as ABB may require and signed by the end-user confirming that it shall comply with Article 11.1 (a) to (c) . Until such time as ABB has received such end-user certificate, ABB shall be entitled to suspend the performance under this contract. The end-user certificate shall form part of this contract. The Purchaser agrees and accepts that it shall be liable for any acts or omissions in relation to the use of the Products (including (without limit) the acts or omissions of its employees, agents, subcontractors, customers, any end user of the Products and/or any third party) in breach any of the provisions set out in Article 11.1 (a) to (c) and further agrees that such a breach shall be deemed a fundamental breach of contract by the Purchaser, and shall entitle ABB to terminate the contract forthwith by giving notice to the Purchaser.
- 11.2 The Purchaser shall comply with all laws and other restrictions on the export, re-export or import of any Product or technology licensed under the contract as may be imposed from time to time by the UK or US Governments or their agencies, and shall procure such export licence or other Government approval as may be required. The Purchaser shall require that all third parties receiving such Product or technology from the Purchaser comply with this requirement. ABB shall assist the Purchaser in every reasonable way in obtaining of such licences at the Purchaser's cost.
- 11.3 The performance by either of the parties of an obligation under this contract, which performance requires an export or import licence or other government approval, and any other obligation affected shall, to the extent it is necessary, automatically be suspended until such licence or approval as mentioned in Article 11.2 is given. If such licence is not granted within a reasonable time or is revoked by the appropriate authorities, ABB shall be entitled to terminate this contract, and the Purchaser shall indemnify ABB on demand for any loss or damage which ABB may suffer or incur as a result of such termination.
- 11.4 ABB may at its reasonable discretion, without breaching the contract, delay, withhold or refuse the provision of services to be undertaken in any territory or upon any site deemed by ABB to be unsafe or unfit for ABB's personnel, upon notice of which the parties may agree to reschedule or remove said portion of services from scope.
- 11.5 The Purchaser shall keep ABB, its officers, directors, employees, agents and advisers indemnified against any and all claims and liabilities arising out of any breach by the Purchaser or any for whom the Purchaser is liable (which shall, without limitation, include the end-user) of any of the provisions set out in this Article 11.
12. CONFIDENTIALITY
- 12.1. The Purchaser shall keep all information communicated to the Purchaser in connection with this contract, or otherwise concerning ABB's business, secret and confidential, and will not use the same except for the purposes of performing this contract.
13. INSURANCE
- 13.1. ABB shall maintain Employer's Liability insurance as required by law and Public/Products Liability insurance in respect of its obligations and liabilities under the contract for an amount of two million pounds (£2,000,000) per one event and in the aggregate. ABB shall upon request produce to the Purchaser evidence of satisfactory policies of insurance in the form of its Brokers letter.
14. INDEMNIFICATION
- 14.1. If Products are to be manufactured or any process is to be applied to Products by ABB in accordance with a specification submitted by the Purchaser, the Purchaser shall indemnify ABB against all losses, damages, costs (including legal costs), expenses, liabilities and claims suffered or incurred by ABB in connection with infringement of any intellectual property rights of any third party resulting from ABB's use of the Purchaser's specification.
15. LIMITATION OF LIABILITY
- 15.1. To the maximum extent permitted by law, and notwithstanding anything to the contrary in this contract, other than the express provisions for liquidated damages, in no event shall ABB be liable to the Purchaser, whether as a result of breach of contract, warranty, guarantee, indemnity, tort (including negligence), strict liability, statutory duty or otherwise, for any of the following damages or losses, in each case whether direct or indirect, such as, but not limited to:
- |                               |                             |
|-------------------------------|-----------------------------|
| (a) loss of revenue,          | (b) loss of profit,         |
| (c) loss of contract,         | (d) loss of business,       |
| (e) loss of use,              | (f) loss of production,     |
| (g) interruption of business, | (h) loss of operation time, |
| (i) costs of capital,         | (j) economic loss,          |

# Contact us

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**[www.abb.co.uk/lowvoltage](http://www.abb.co.uk/lowvoltage)**

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