



# FUSERBLOC

Fuse combination switches with rear connection  
for industrial fuses up to 400 A

Fuse protection



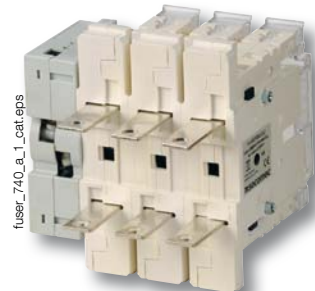
**FUSERBLOC**  
REAR / FRONT connections 3 x 250 A



fuser\_737\_a\_1\_cat.eps



**FUSERBLOC**  
REAR / REAR connections 3 x 100 A



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## The solution for

- > Motor load break
- > Protection of industrial processes



## Strong points

- > Improved safety
- > High breaking capacity
- > Specific functionalities for simplified use

## Conformity to standards

- > IEC 60947-3
- > EN 60947-3
- > BS EN 60947-3
- > NBN EN 60947-3
- > IEC 60269-1
- > DIN EN 60269-1
- > NF EN 60269-1
- > IEC 60269-2
- > VDE 0636-1
- > VDE 0660-107



## Function

**FUSERBLOC** are manually operated multipolar fuse combination switches. They make and break on load and provide safety isolation and protection against overcurrent for any low voltage electrical circuit.

## Advantages

### Improved safety

- Complete isolation of the fuse with double breaking per pole (top and bottom of fuse).
- Positive break indication.
- IP2X protection with terminal shrouds front panel.

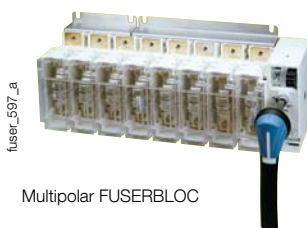
### High breaking capacity

Protection against overloads and short-circuits thanks to high breaking capacity fuses (100 kA rms).

### Specific functionalities for simplified use

- TEST position for testing control circuits without energising the power poles using U-type auxiliary contacts. In TEST position, the enclosure door can be opened.
- Mechanical or electronic fuse melting detection system (see DDMM or FMD)

## Customised solutions



Multipolar FUSERBLOC



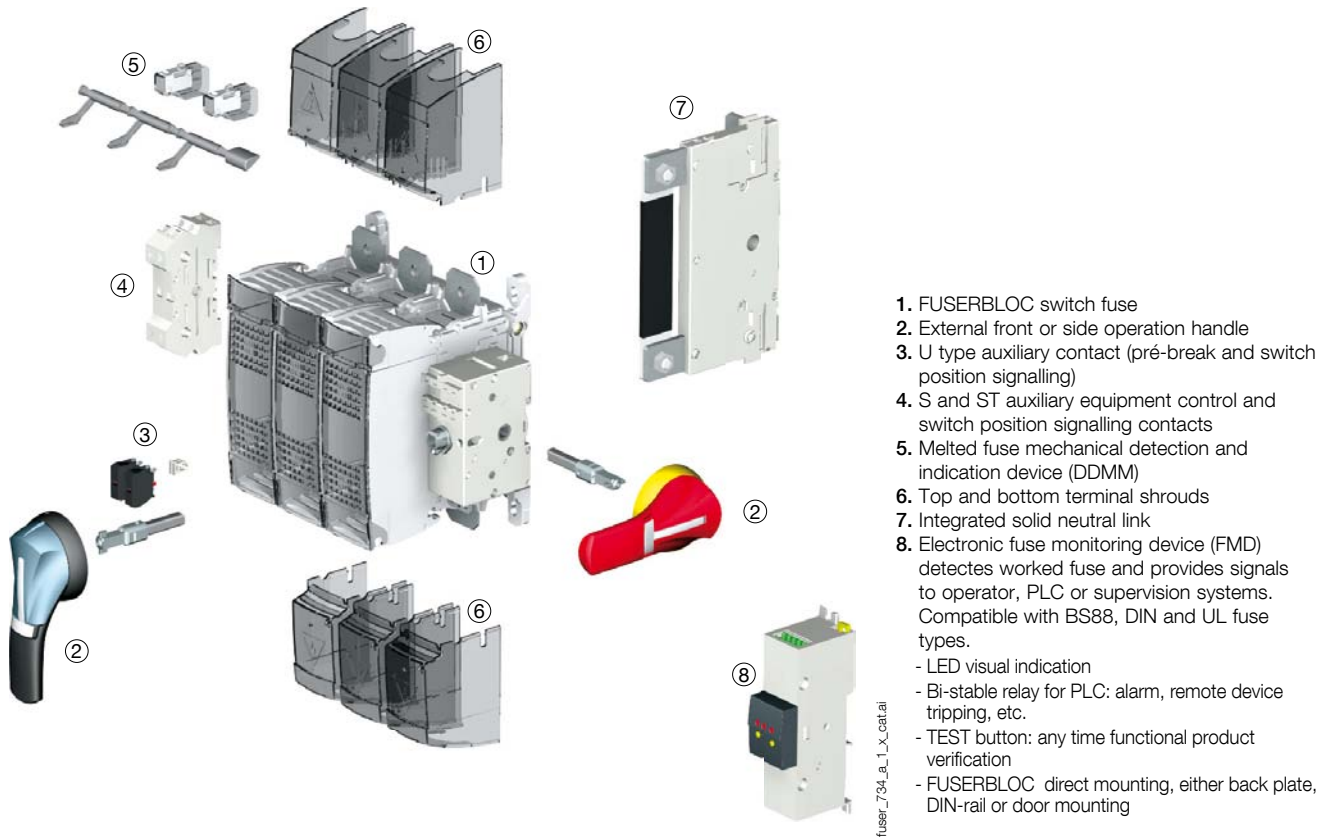
Centred operation

## Available on request

- > Fuserbloc with rear top plug-in connections
- > Multipolar Fuserbloc with various coupling possibilities such as: 3 x 400 A + 3 x 50 A with front or side operation
- > Fuserbloc switch fuses with centered operation
- > Fuserbloc UL and CSA for North American markets

## What you need to know

- In addition to the FUSERBLOC rating, product selection also depends on the fuse characteristics and functional specifications, which need to be in accordance with the application. SOCOMEC FUSERBLOC are available for utilisation with **NFC, DIN or BS88 fuses**.



- For ratings 20 to 400 A, the **flat mounting kit** provides a compact solution ideally suited to withdrawable applications.



# FUSERBLOC

Fuse combination switches with rear connection  
for industrial fuses up to 400 A

## References

### BS 88 - External front and side operation - 32 to 400 A

Rating (A) Fuse size Frame size	No. of poles	Rear / Front Switch I - 0 -TEST	Rear / Rear Switch I - 0 -TEST	External front handle I - 0	TEST External front handle I - 0 - TEST	External right side handle I - 0	Shaft extensions for handle	Terminal shrouds <sup>(3)</sup>	U type A/C <sup>(2)</sup>	Integrated solid neutral link																									
32 A A1 11	3 P	3841 <b>3203</b>	3841 <b>3103</b>	S1 type	S1 type	S1 type	320 mm 1400 <b>1032</b>	IP2x as standard																											
	4 P	3841 <b>6203</b>	3841 <b>6103</b>	Black IP65 1413 <b>2111</b> <sup>(1)</sup>	Black IP65 1413 <b>2115</b> <sup>(1)</sup>	Black IP65 1417 <b>2111</b> <sup>(1)</sup>																													
63 A A2-A3 12	3 P	3841 <b>3206</b>	3841 <b>3106</b>	S2 type	S2 type	S2 type					320 mm 1400 <b>1032</b>	IP2x as standard		3829 <b>9310</b>																					
	4 P	3841 <b>6206</b>	3841 <b>6106</b>												Red/Yellow IP65 1414 <b>2111</b>	Red/Yellow IP65 1414 <b>2115</b>	Red/Yellow IP65 1418 <b>2111</b>																		
100 A A4 <sup>(4)</sup> 13	3 P	3841 <b>3210</b>	3841 <b>3110</b>												S2 type	S2 type	S2 type	320 mm 1400 <b>1032</b>		1 contact NO 3999 <b>0701</b>															
	4 P	3841 <b>6210</b>	3841 <b>6110</b>																			Black IP65 1423 <b>2111</b> <sup>(1)</sup>	Black IP65 1423 <b>2115</b> <sup>(1)</sup>	Black IP65 1427 <b>2111</b> <sup>(1)</sup>											
160 A B1-B2 14	3 P	3841 <b>3216</b>	3841 <b>3116</b>					Red/Yellow IP65 1424 <b>2111</b>	Red/Yellow IP65 1424 <b>2115</b>	Red/Yellow IP65 1428 <b>2111</b>															320 mm 1400 <b>1032</b>		1 contact NC 3999 <b>0702</b>	3829 <b>9320</b>							
	4 P	3841 <b>6216</b>	3841 <b>6116</b>																										Rear / Front 3829 <b>2325</b>						
250 A B1-B2-B3 15	3 P	3841 <b>3224</b>	3841 <b>3124</b>									Red/Yellow IP65 1424 <b>2111</b>	Red/Yellow IP65 1424 <b>2115</b>	Red/Yellow IP65 1428 <b>2111</b>																320 mm 1400 <b>1032</b>			Rear / Rear 3829 <b>1325</b>		
	4 P	3841 <b>6224</b>	3841 <b>6124</b>																															Rear / Front 3829 <b>2339</b>	
400 A B1-B2- B3-B4 16	3 P	3841 <b>3239</b>	3841 <b>3139</b>																Red/Yellow IP65 1424 <b>2111</b>	Red/Yellow IP65 1424 <b>2115</b>	Red/Yellow IP65 1428 <b>2111</b>														320 mm 1400 <b>1032</b>
	4 P	3841 <b>6239</b>	3841 <b>6139</b>																			Rear / Front 3829 <b>2339</b>													

(1) Standard.

(2) 4 auxiliary contacts as standard without additional contact holder.

(3) Top/bottom.

(4) For fuse size A4: max diameter 31 mm.

## References

### NFC and DIN - External front and right side operation - 50 to 400 A

Rating (A) Fuse size Frame size	No. of poles	Rear / Front Switch I - 0 - TEST	Rear / Rear Switch I - 0 - TEST	External front handle	TEST External front handle	External right side handle	Shaft for external handle	Auxiliary contacts <sup>(2)</sup>	Terminal shrouds <sup>(1)</sup>	Integrated solid neutral link												
50 A 14 x 51 11	3 P	3831 <b>3205</b>	3831 <b>3105</b>	S1 type  Black IP65 1413 <b>2111</b>	S1 type  Black IP65 1413 <b>2115</b>	S1 type  Black IP65 1417 <b>2111</b>	320 mm 1400 <b>1032</b>	U-type  1 contact NO 3999 <b>0701</b>	IP2x as standard													
	4 P	3831 <b>6205</b>	3831 <b>6105</b>	Red/Yellow IP65 1414 <b>2111</b>	Red/Yellow IP65 1414 <b>2115</b>	Red/Yellow IP65 1418 <b>2111</b>																
100 A 22 x 58 13	3 P	3831 <b>3210</b>	3831 <b>3110</b>					1 contact NC 3999 <b>0702</b>	2 P 3998 <b>2016</b> 3 P 3998 <b>3016</b> 4 P 3998 <b>4016</b>		3829 <b>9310</b>											
	4 P	3831 <b>6210</b>	3831 <b>6110</b>																			
160 A 00 13	3 P	3831 <b>3215</b>	3831 <b>3115</b>										3 P 3998 <b>3016</b> 4 P 3998 <b>4016</b>	3829 <b>9320</b>								
	4 P	3831 <b>6215</b>	3831 <b>6115</b>																			
160 A 0 14	3 P	3831 <b>3216</b>	3831 <b>3116</b>									S2 type  Black IP65 1423 <b>2111</b>	S2 type  Black IP65 1423 <b>2115</b>	S2 type  Black IP65 1427 <b>2111</b>		U-type  1 contact NO 3999 <b>0701</b>						
	4 P	3831 <b>6216</b>	3831 <b>6116</b>									Red/Yellow IP65 1424 <b>2111</b>	Red/Yellow IP65 1424 <b>2115</b>	Red/Yellow IP65 1428 <b>2111</b>								
250 A 1 15	3 P	3831 <b>3224</b>	3831 <b>3124</b>													1 contact NC 3999 <b>0702</b>			Rear / Front 3829 <b>2325</b> Rear / Rear 3829 <b>1325</b>			
	4 P	3831 <b>6224</b>	3831 <b>6124</b>																			
400 A 2 16	3 P	3831 <b>3239</b>	3831 <b>3139</b>																		3 P 3998 <b>3025</b> 4 P 3998 <b>4025</b>	Rear / Front 3829 <b>2339</b> Rear / Rear 3829 <b>1339</b>
	4 P	3831 <b>6239</b>	3831 <b>6139</b>																			

(1) Top/bottom.

(2) Maximum 4 contacts.

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## Accessories

### Direct operation handle

For front operation			
Rating (A)	Frame size	Handle colour	Reference
32 ... 400	11 ... 16	Black	3629 <b>7910</b> <sup>(1)</sup>

(1) Direct operation handle for switches 3841 xxxx and 3831 xxxx.



access\_261\_a

### External front operation handle

Padlockable handle in position 0							
Rating (A)	Frame size	Handle type	Handle colour	Operation	External IP <sup>(1)</sup>	Defeatable handle	Reference
32 ... 63	11/12	S1	Black	I - 0	IP55	Yes	1411 <b>2111</b>
	11/12	S1	Black	I - 0	IP65	Yes	1413 <b>2111</b>
	11/12	S1	Red/Yellow	I - 0	IP65	Yes	1414 <b>2111</b>
	11/12	S1	Black	I - 0 - Test	IP65	Yes	1413 <b>2115</b>
	11/12	S1	Red/Yellow	I - 0 - Test	IP65	Yes	1414 <b>2115</b>
100 ... 400	13 ... 16	S2	Black	I - 0	IP55	Yes	1421 <b>2111</b>
	13 ... 16	S2	Black	I - 0	IP65	Yes	1423 <b>2111</b>
	13 ... 16	S2	Red/Yellow	I - 0	IP65	Yes	1424 <b>2111</b>
	13 ... 16	S2	Black	I - 0 - Test	IP65	Yes	1423 <b>2115</b>
	13 ... 16	S2	Red/Yellow	I - 0 - Test	IP65	Yes	1424 <b>2115</b>

(1) IP: protection degree according to IEC 60529 standard.

Padlockable handle in position 0 and I						
Rating (A)	Frame size	Handle type	Handle colour	External IP <sup>(1)</sup>	Reference	
32 ... 63	11/12	S1	Black	IP65	1413 <b>2311</b>	
100 ... 400	13 ... 16	S2	Black	IP65	1423 <b>2311</b>	

(1) IP: protection degree according to IEC 60529 standard.



S1 type handle

access\_149\_a\_2\_cat



S2 type handle

access\_164\_a\_2\_cat

### External right side operation handle

Rating (A)	Frame size	Handle type	Handle colour	External IP <sup>(1)</sup>	Reference
32 ... 63	11/12	S1	Black	IP55	1415 <b>2111</b>
	11/12	S1	Black	IP65	1417 <b>2111</b>
	11/12	S1	Red/Yellow	IP65	1418 <b>2111</b>
100 ... 400	13 ... 16	S2	Black	IP55	1425 <b>2111</b>
	13 ... 16	S2	Black	IP65	1427 <b>2111</b>
	13 ... 16	S2	Red/Yellow	IP65	1428 <b>2111</b>

(1) IP: protection degree according to IEC 60529 standard.



S1 type handle

access\_149\_a\_2\_cat

### External front operation handle with metal padlocking lever

Rating (A)	Frame size	Handle type	Handle colour	External IP <sup>(1)</sup>	Defeatable handle	Reference
32 ... 63	11/12	S1	Black	IP65	Yes	141D <b>2911</b>
	11/12	S1	Red/Yellow	IP65	Yes	141E <b>2911</b>
100 ... 400	13 ... 16	S2	Black	IP65	Yes	142D <b>2911</b>
	13 ... 16	S2	Red/Yellow	IP65	Yes	142E <b>2911</b>

(1) IP: protection degree according to IEC 60529 standard.



S2 type handle

access\_236\_a\_2\_cat

## S-type handle adapter

### Use

Enables S-type handles to be fitted in place of existing older style Socomec handles. Adapter can be utilised as a spacer to increase the distance between the panel door and the handle lever.

### Dimensions

Adds 12 mm to the depth of the handle.

Handle colour	To be ordered in multiples of	External IP <sup>(1)</sup>	Reference
Black	1	IP65	1493 0000

(1) IP: protection degree according to IEC 60529 standard.



access\_187\_a\_1\_cat

## Alternative S-type handle cover colours

### Use

For single lever handles S1 and S2 type. Other colours: please consult us.

Handle colour	To be ordered in multiples of	Handle type	Reference
Light grey	50	S1, S2	1401 0001
Dark grey	50	S1, S2	1401 0011



access\_198\_a\_1\_cat

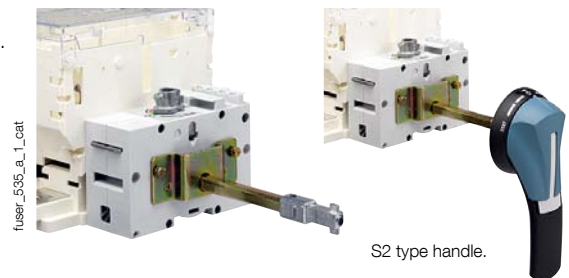
## Flat mounting kit

### Use

The flat mounting providing compact solution ideally suited to withdrawable applications. Kit to be used with a handle for flat mounting.

Rating (A)	Frame size	Type	Reference
32 ... 400	11 ... 16	Kit + Shaft 200 mm	1429 7710 <sup>(1)</sup>

(1) External operation handle to be ordered separately.



fuser\_595\_a\_1\_cat

fuser\_596\_a\_1\_cat

S2 type handle.

# FUSERBLOC

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## Accessories (continued)

### Front operation shaft support accessory

#### Use

This support maintains shaft position for extension shafts greater than 320 mm in length.



fuser\_698\_a\_2\_cat

Rating (A)	Frame size	Reference
32 ... 400	11 ... 16	3899 0400

### Shaft guide for external operation

#### Use

To guide the shaft extension into the external handle.

This accessory enables the handle to engage the extension shaft with a misalignment of up to 15 mm.

Required for a shaft lengths over 320 mm.



access\_260\_a\_2\_cat

Description	Reference
Shaft guide	1429 0000

### Shaft for external front operation handle

#### Use

Other lengths: consult us.

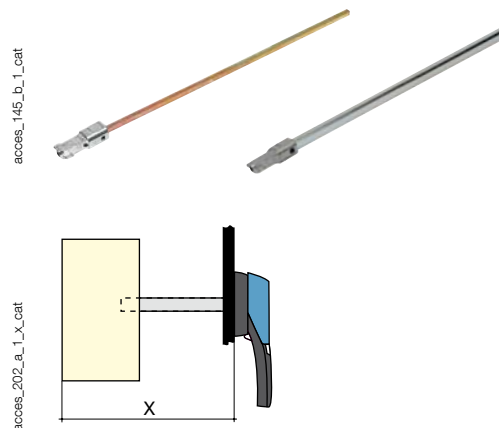
Standard lengths:

- 200 mm
- 320 mm
- 500 mm.

Rating (A)	Frame size	Shaft length (mm)	Reference
32 ... 400	11 ... 16	200	1400 1020
32 ... 400	11 ... 16	320	1400 1032
32 ... 400	11 ... 16	500	1400 1050 <sup>(2)</sup>

(1) Use the shaft guide accessory for external operation.

(2) Use the front operation shaft support accessory.



#### Dimension X (mm) for FUSERBLOC BS88

Rating (A)	32	63 ... 100	160	250 ... 400
Fuse size	A1	A2-A3/A4	B1-B2	B1-B2-B3
Frame size	11	12/13/14	14/15	15/16
Shaft length (mm)				
200	100 ... 230	125 ... 230	135 ... 230	160 ... 230
320	100 ... 350	125 ... 350	135 ... 350	160 ... 350
500	100 ... 530	125 ... 530	135 ... 530	160 ... 530

#### Dimension X (mm) for FUSERBLOC NFC and DIN

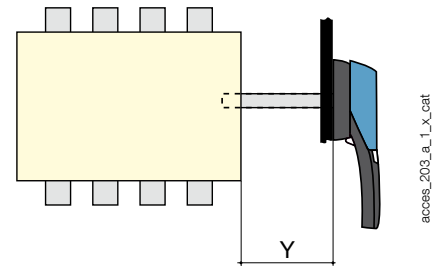
Rating (A)	50	100 ... 160	160	250 ... 400
Fuse size	14x51	22x58/00	0	1/2
Frame size	11	13	14	15/16
Shaft length (mm)				
200	100 ... 230	135 ... 230	145 ... 230	160 ... 230
320	100 ... 350	135 ... 350	145 ... 350	160 ... 350
500	100 ... 530	135 ... 530	145 ... 530	160 ... 530

## Shaft extensions for external side operation

### Use

Standard lengths, 200 mm.

Rating (A)	Frame size	Handle type	Dimension Y (mm)	Shaft length (mm)	Reference
32 ... 400	11 ... 16	S	36 ... 172	200	1400 <b>1020</b>



access\_203\_a\_1\_X\_cat

## Integrated solid neutral link

### Use

Fixing the solid neutral onto the mechanism produces a device with a solid neutral of the same size as a standard three-pole device (+ 6 mm).

Rating (A)	Switch body size	Bar rating (A)	Rear / Front Reference	Rear / Rear Reference
32 ... 125	11/12/13	125	3829 <b>9310</b>	3829 <b>9310</b>
160	13/14	200	3829 <b>9320</b>	3829 <b>9320</b>
250	15	250	3829 <b>2325</b>	3829 <b>1325</b>
400	16	400	3829 <b>2312</b>	3829 <b>3312</b>



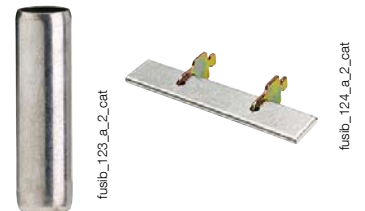
access\_130\_a\_1\_cat

access\_131\_a\_1\_cat

## Solid links

BS88 switches				
Rating (A)	Frame size	Fuse size	I <sub>max</sub> (A)	Reference
32	11	A1	32	3629 <b>9003</b>
63	12	A2-A3	63	3629 <b>9006</b>
100	13	A4	160	3629 <b>9010</b>
160	14	B1-B2	200	3629 <b>9016</b>
250	15	B1-B2-B3	315	3629 <b>9025</b>
400	16	B1-B2-B3-B4	400	3629 <b>9040</b>

NFC and DIN switches				
Rating (A)	Frame size	Fuse size	I <sub>max</sub> (A)	Reference
50	11	14 x 51	50	6029 <b>0000</b>
100	13	22 x 58	125	6039 <b>0000</b>
160	13	00	160	6420 <b>0000</b>
160	14	0	160	6421 <b>0000</b>
250	15	1	250	6421 <b>0001</b>
400	16	2	400	6421 <b>0002</b>



fusb\_123\_a\_2\_cat

fusb\_124\_a\_2\_cat



# FUSERBLOC

Fuse combination switches with rear connection  
for industrial fuses up to 400 A

## Accessories (continued)

### U-type auxiliary contacts<sup>(1)</sup>

#### Use

Compact universal type auxiliary contacts which can be configured for operation in either, or both, ON and TEST positions for CD 20 to 1250 A FUSERBLOC. Each slot can accommodate up to two interlocked A/Cs.

#### Connection to the control circuit

By terminals with max. section 2 x 2.5 mm<sup>2</sup>.  
For FUSERBLOC CD 20 to 400 A: Pre-break and signalling of positions 0, I and TEST.  
For FUSERBLOC ≥ 630 A: Pre-break and position 0 and I signalling.



access\_056\_a1\_cat

#### References

NO auxiliary contacts			
Rating (A)	Frame size	Contact(s)	Reference <sup>(1)</sup>
32 ... 400	11 ... 16	1	3999 0701 <sup>(2)</sup>

NC auxiliary contacts			
Rating (A)	Frame size	Contact(s)	Reference <sup>(1)</sup>
32 ... 400	11 ... 16	1	3999 0702 <sup>(2)</sup>

(1) Cannot be mounted in direct operation CD20 - CD32 switches.  
(2) 4 auxiliary contacts as standard without additional A/C holder.

Contact holder for additional auxiliary contacts			
Rating (A)	Frame size	Contact(s)	Reference
32 ... 400	11 ... 16	4 (2 x 2 max)	3999 0600

#### Characteristics

Rating (A)	Operating current I <sub>o</sub> (A)			
	250 VAC AC-15	400 VAC AC-15	24 VDC DC-13	48 VDC DC-13
32 ... 400	3	1.8	2.8	1.4

### S and ST-type auxiliary contacts

#### Use

For FUSERBLOCs 32 to 1250 A, position 0 and I signalling by 1 to 4 NO + NC auxiliary contacts.

#### Electrical principle

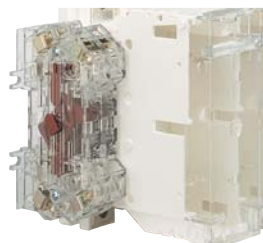
The NO + NC S-type auxiliary contacts can be configured as 2 NC or 2 NO.

#### Connection

By terminals with max. cross-section 10 mm<sup>2</sup>.

#### Mechanical characteristics

30 000 operations.



access\_051\_a2\_cat

access\_083\_a1\_cat

#### References

S-type auxiliary contacts 0-I for external front and right-side operation (Standard operation)				
Rating (A)	Frame size	Contact type	S-type AC Reference	Drive shaft (optional) Reference
32 ... 400	11 ... 16	NC+NO	3999 0041 <sup>(1)</sup>	3999 0003

ST-type auxiliary contacts I-0-TEST for external front and right-side operation (TEST operation)					
Rating (A)	Frame size	Contact type	Description	ST-type AC Reference	Drive shaft Reference
32 ... 400	11 ... 16	NC+NO	TEST + ON	3999 0141 <sup>(2)</sup>	3999 0103
32 ... 400	11 ... 16	2 O	TEST + ON	3999 0241 <sup>(2)</sup>	3999 0103

(1) Drive shaft included with S-type Auxiliary Contact.  
(2) Drive shaft to be ordered in addition to the ST-type Auxiliary Contact.

#### Characteristics

Rating (A)	Current nominal (A)	Operating current I <sub>o</sub> (A)	
		250 VAC AC-13	400 VAC AC-13
32 ... 400	20	10	8

## Terminal shrouds

### Use

Top or bottom IP20 protection (on the front) against direct contact with terminals or connection parts.

Two sets required to fully shroud both incoming and outgoing terminals.

Rating (A)	Frame size	Position	No. of poles	Reference
32 ... 63	11/12	top / bottom	3 / 4 P	integrated
100 ... 160	13/14	top / bottom	3 P	3998 <b>3016</b>
100 ... 160	13/14	top / bottom	4 P	3998 <b>4016</b>
200 ... 400	15/16	top / bottom	3 P	3998 <b>3025</b>
200 ... 400	15/16	top / bottom	4 P	3998 <b>4025</b>



fuser\_314\_a\_1\_cat

## NFC and DIN worked fuse indication

### Use

For fuse cartridge with striker (size 14 x 51 22 x 58; 0; 1; 2; 3 and 4).

### Electrical principle

A NO/NC auxiliary contact detects that the fuse has blown.

### Connection to the control circuit

6.35 mm fast-on terminal.

### Mechanical characteristics

30 000 operations.

### References

NO/NC type auxiliary contacts for 3 pole				
Rating (A)	Frame size	Fuses	Contact(s)	Reference
50	11	14 x 51	1 <sup>st</sup>	3994 <b>0405</b>
100	13	22 x 58	1 <sup>st</sup>	3994 <b>0310</b>
160	14	0	1 <sup>st</sup>	3994 <b>0316</b>
250	15/16	1-2	1 <sup>st</sup>	3994 <b>0325</b>
50 ... 250	11		2 <sup>nd</sup>	3994 <b>1901</b>
400	16	2	2 <sup>nd</sup>	3994 <b>1902</b>

NO/NC type auxiliary contacts for 4 pole or 3 pole + neutral				
Rating (A)	Frame size	Fuses	Contact(s)	Reference
50	11	14 x 51	1 <sup>st</sup>	3994 <b>0405</b>
100	13	22 x 58	1 <sup>st</sup>	3994 <b>0410</b>
160	14	0	1 <sup>st</sup>	3994 <b>0416</b>
250	15/16	1-2	1 <sup>st</sup>	3994 <b>0425</b>
50 ... 250	11		2 <sup>nd</sup>	3994 <b>1901</b>
400	16	2	2 <sup>nd</sup>	3994 <b>1902</b>



fuser\_312\_a\_1\_cat

DDMM for NH fuses

### Characteristics

Rating (A)	Current nominal (A)	Operating current I <sub>e</sub> (A)			
		250 VAC AC-13	400 VAC AC-13	24 VDC DC-13	48 VDC DC-13
32 ... 400	16	4	3	12	2

## Electronic fuse monitoring device (FMD)

### Use

Provides fuse state monitoring and worked fuse indication even for fuse links without monitoring device strikers. Suitable for use with BS88, DIN and UL type fuses.

### Principle

The Fuse Monitoring Device (FMD) detects the worked fuse and provides a signal via: a relay and 1 LED (FMD10) or a bi-stable relay and 3 LEDs (FMD30).

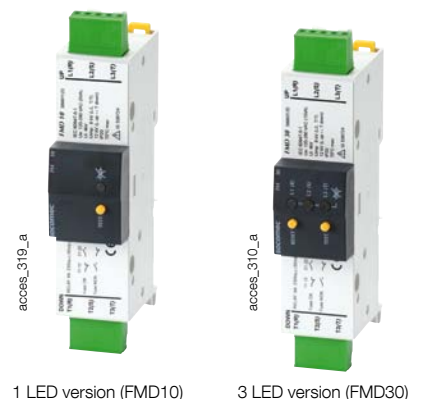
The FMD can be DIN rail or back plate mounted close to the Fuserbloc, directly mounted on the FUSERBLOC, or it can be door mounted to provide information directly on the front of a panel.

### References

For FUSERBLOC 32 to 400 A		
Nb of LEDs	Operating voltage Ph/Ph	Reference
1 (FMD10)	120 - 260 VAC	3899 <b>1120</b>
1 (FMD10)	380 - 690 VAC	3899 <b>1380</b>
3 (FMD30)	120 - 260 VAC	3899 <b>3120</b>
3 (FMD30)	380 - 690 VAC	3899 <b>3380</b>
Accessories		Reference
Kit for connection accessories	Standard	3819 <b>9120</b>
Kit for connection accessories	Door mounted	3829 <b>9120</b>

### Relay characteristics

Rating (A)	Relay operating current I <sub>e</sub> (A)	
	AC-15	DC-13
63 ... 400	2.5 A	0.2



1 LED version (FMD10)

3 LED version (FMD30)

# FUSERBLOC

Fuse combination switches with rear connection  
for industrial fuses up to 400 A

## Cage terminals

### Use

Connection of bare copper cables onto the terminals (without lugs).

### References

Rating max (A)	Frame size	No. of poles	Reference
32 ... 63	11 ... 12	3 / 4 P	integrated
100 ... 160	13/14	3 P	5400 <b>3016</b>
100 ... 160	13/14	4 P	5400 <b>4016</b>
250	15	3 P	5400 <b>3025</b>
250	15	4 P	5400 <b>4025</b>
400	16	3 P	5400 <b>3040</b>
400	16	4 P	5400 <b>4040</b>



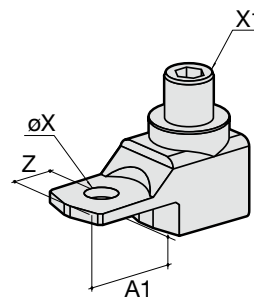
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### Connections

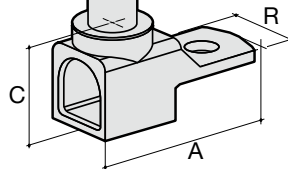
Rating (A)	Flexible cable cross-section (mm <sup>2</sup> )	Rigid cable cross-section (mm <sup>2</sup> )	Flexible bar width (mm)	Stripped over (mm)
100 ... 160	16 ... 95	16 ... 95	13	22
250	16 ... 185	16 ... 185	18	27
400	50 ... 240	50 ... 300	20	34

### Dimensions

Rating (A)	A	A1	C	R	ØX	X1	Z
100 ... 160	47.5	22.5	25	20	8.5	M12	10
250	62	31.5	31.5	25	10.5	M16	14
400	71.5	32	38	32	10.5	M20	15



access\_091\_a\_1\_x\_cat



access\_092\_a\_1\_x\_cat

## Handle key interlocking accessories

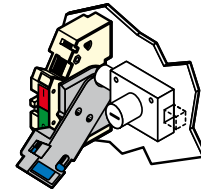
### Use

Locking in position 0 of the direct, front or right side operation:

- using a padlock (not supplied) in direct right side operation: integrated into the handle,

- using a padlock (not supplied): right-side or front operation switch from 32 to 1250 A, factory integrated

- using a padlock (not supplied) in external operation.



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### Locking using RONIS EL 11 AP lock (not supplied)

Rating (A)	Frame size	Operation	Figure n°	Reference
32 ... 400	11 ... 16	external front	2	1499 <b>7701</b>

### Locking using K-type CASTELL lock (not supplied)

Rating (A)	Frame size	Operation	Figure n°	Reference
32 ... 400	11 ... 16	external front	3	1499 <b>7702</b>

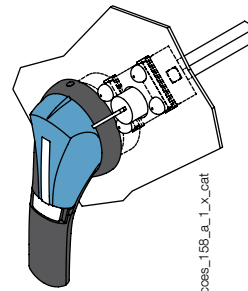
### Locking using FS-type CASTELL lock (not supplied)

Rating (A)	Frame size	Operation	Figure n°	Reference
32 ... 400	11 ... 16	external front	3	1499 <b>7703</b>

### Locking using XOP (not supplied)

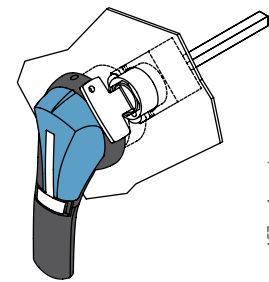
Rating (A)	Frame size	Operation	Reference
32 ... 400	11 ... 16	external front	1499 <b>7702</b>

Fig. 1



access\_158\_a\_1\_x\_cat

Fig. 2



access\_157\_a\_1\_x\_cat

Fig. 3

## Characteristics according to IEC 60947-3

### 32 to 400 A

Thermal current $I_{th}$ (40°C)	32 A	50 A	63 A	100 A	160 A	160 A	250 A	400 A
BS88/DIN fuse size	A1/-	-/14 x 51	A2-A3/00C	A4*/22 x 58	-/00	B1-B2	B1-B2-B3/1	B1-B2-B3-B4/2
Frame size for direct operation	1	1	2	3	3	4	5	6
Switch body size for front and side operation	11	11	12	13	13	14	15	16
Rated insulation voltage $U_i$ (V)	800	800	800	800	800	800	800	800
Rated impulse withstand voltage $U_{imp}$ (kV)	8	8	8	8	8	8	8	8
<b>Rated operational currents <math>I_o</math> (A)</b>								
Rated voltage	Utilisation category	A/B <sup>(1)</sup>	A/B <sup>(1)</sup>	A/B <sup>(1)</sup>	A/B <sup>(1)</sup>	A/B <sup>(1)</sup>	A/B <sup>(1)</sup>	A/B <sup>(1)</sup>
400 VAC	AC-22 A / AC-22 B	32/32	50/50	63/63	100/100	160/160	160/160	250/250
400 VAC	AC-23 A / AC-23 B	32/32	50/50	63/63	100/100	160/160	160/160	250/250
690 VAC	AC-22 A / AC-22 B	32/32	50/50	63/63	100 <sup>(2)</sup> /100 <sup>(2)</sup>	160 <sup>(2)</sup> /160 <sup>(2)</sup>	160 <sup>(2)</sup> /160 <sup>(2)</sup>	250 <sup>(2)</sup> /250 <sup>(2)</sup>
690 VAC	AC-23 A / AC-23 B	32/32	50/50	63/63	100 <sup>(2)</sup> /100 <sup>(2)</sup>	125 <sup>(2)</sup> /125 <sup>(2)</sup>	125 <sup>(2)</sup> /125 <sup>(2)</sup>	250 <sup>(2)</sup> /250 <sup>(2)</sup>
220 VDC	DC-20 A / DC-20 B	32/32	50/50	63/63	100/100	160/160	160/160	250/250
220 VDC	DC-21 A / DC-21 B	32/32	40/40	40/40	100/100	125/125	125/125	200/200
440 VDC	DC-20 A / DC-20 B	32 <sup>(3)</sup> /32 <sup>(3)</sup>	50 <sup>(3)</sup> /50 <sup>(3)</sup>	63 <sup>(3)</sup> /63 <sup>(3)</sup>	100 <sup>(3)</sup> /100 <sup>(3)</sup>	160 <sup>(3)</sup> /160 <sup>(3)</sup>	160 <sup>(3)</sup> /160 <sup>(3)</sup>	250 <sup>(3)</sup> /250 <sup>(3)</sup>
440 VDC	DC-21 A / DC-21 B	32 <sup>(3)</sup> /32 <sup>(3)</sup>	40 <sup>(3)</sup> /40 <sup>(3)</sup>	40 <sup>(3)</sup> /40 <sup>(3)</sup>	100 <sup>(3)</sup> / 100 <sup>(3)</sup>	125 <sup>(3)</sup> /125 <sup>(3)</sup>	125 <sup>(3)</sup> /125 <sup>(3)</sup>	200 <sup>(3)</sup> / 200 <sup>(3)</sup>
<b>Operational power in AC-23 (kW)</b>								
At 400 VAC without pre-break in AC <sup>(1)(5)</sup>		15/15	25/25	30/30	51/51	80/80	80/80	132/132
At 690 VAC without pre-break in AC <sup>(1)(5)</sup>		25/25	45/45	55/55	90/90	110/110	110/110	220/220
<b>Reactive power (kvar)</b>								
At 400 VAC <sup>(5)</sup>		15	23	28	45	75	75	115
<b>Fuse protected short-circuit withstand BS88/DIN (kA rms prospective)</b>								
Prospective short-circuit (kA rms) <sup>(6)</sup>		80/100	-/100	80/100	80/100	-/100 (50)	80/100	80/100
Associated fuse rating (A) <sup>(6)</sup>		32/32	-/50	63/63	100/100	-/125 (160)	160/160	250/250
<b>Short-circuit capacity</b>								
Rated peak withstand current (kA peak) <sup>(6)</sup>		9	7.6	10.6	20	20	22.7	32.5
<b>Fuse selection (maximum fuse size)*</b>								
SOCOMECS BS88 - Standard max	6A10 0032		6A30 0063	6A40 0100		6B20 0160	6B20 0250	6B40 0400
SOCOMECS BS88 - Motor max	6A1M 0032		6A3M 0080	6A4M 0125		6B1M 0200	6B2M 3015	6B4M 0500
SOCOMECS DIN - Distribution (gl - gG)		6022 0050	6600 0063	6032 0100	6692 0160		6712 0250	6722 0400
SOCOMECS DIN - Motor (aM)		6023 0050	6601 0063	6033 0100	6693 0160		6713 0250	6723 0400
BUSSMANN - Standard max	NITD 32		BAO 63	CEO 100		DD 160	ED 250	ED 400
BUSSMANN - Motor max	NITD 32M63		BAO 63M80	CEO 100M125		CD 100M200	DD 200M315	ED 400M500
LAWSON - Standard max	NIT 32		TIS 63	TCP 100		TF 160	TKF 250	TMF 400
LAWSON - Motor max	NIT 20M32		TIS 63M80	CTFP 100M125		TCP 100M200	TF 200M315	TMF 400M500
GE - Standard max	NET 32		TIS 63	TCP 100		TF 160	TKF 250	TMF 400
GE - Motor max	NET 32M63		TIS 63M80	OCF 100M125		TC 100M200	TF 200M315	TMF 400M450
<b>Connection</b>								
Minimum Cu cable cross-section (mm <sup>2</sup> )	6	6	10	25	35	50	95	185
Maximum Cu cable cross-section (mm <sup>2</sup> )	25	25	25	95	95	95	240	240
Maximum busbar width (mm)				20	20	20	32	45
Min. / Max. tightening torque min (Nm)	2.5/3	2.5/3	2.5/3	8.3/13	8.3/13	8.3/13	20/26	20/26
<b>Mechanical characteristics</b>								
Durability (number of operating cycles)	10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000
Weight of 3 P switch (kg)	0.80	0.80	1	1.5	1.8	1.8	3.2	4.8
Weight of 4 P switch (kg)	1	1	1.3	2	2.3	2.3	4.5	6.1
Weight of 1 P extra (kg)	0.2	0.2	0.3	0.5	0.5	0.5	1.3	1.3
Frame pitch (mm)	32	27	32	36	36	50	60	66

(1) Category with index A = frequent operation - Category with index B = infrequent operation.

(2) With terminal shrouds or terminal screen.

(3) 4-pole device with 2 pole in series by polarity.

(4) 3-pole device with 2 poles "+" in series and 1 pole "-".

(5) The power value is given for information only, the current values vary from one manufacturer to another.

(6) For a rated operational voltage  $U_o = 400$  VAC.

\* Please ensure that fuse let through current does not exceed short-circuit capacity of the switch (kA peak).

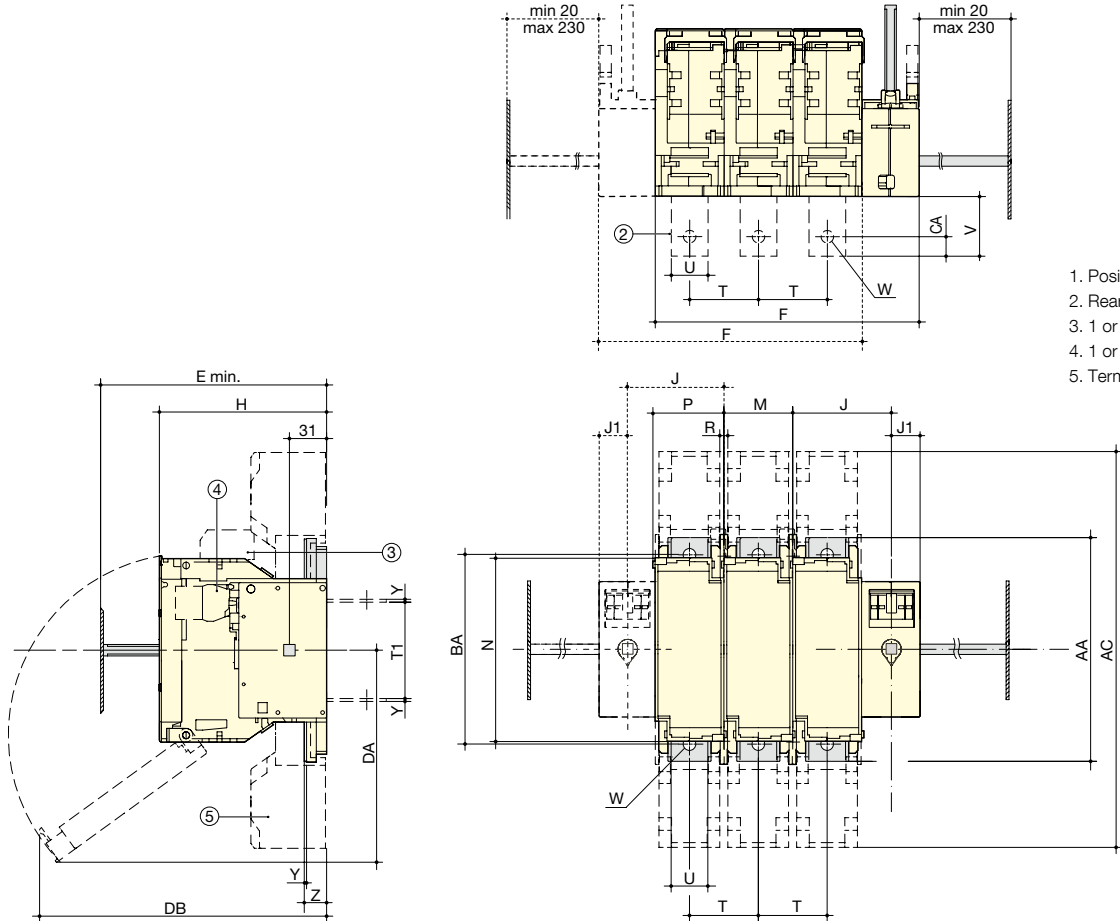
# FUSERBLOC

Fuse combination switches with rear connection  
for industrial fuses up to 400 A

## Dimensions

### External operation

BS88 32 to 400 A - NFC and DIN 50 to 250 A



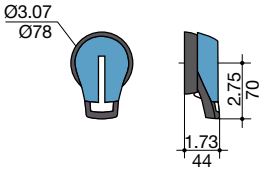
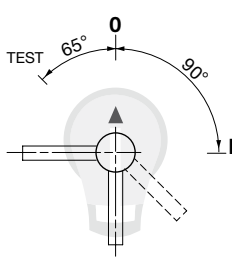
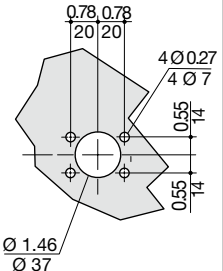
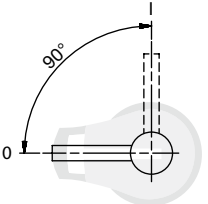
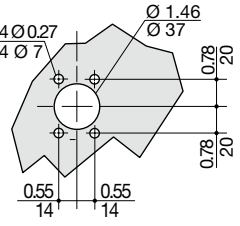
1. Position TEST.
2. Rear connection (option)
3. 1 or 2 CA type DDMM
4. 1 or 8 CA NO/NC pre-break.
5. Terminal shrouds.

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Rating (A)	NFC/DIN Fuse size	BS88 Fuse size	Frame size	Overall dimensions E min	Terminal shrouds AC	Switch body								Switch mounting				Connection								
						F 3p.	F 4p.	H	J	J1	DA	DB	M	N	P	R	T	T1	U	W	Y	Z	AA	BA	CA	V
32	-	A1	11	100	-	121	148	87	45	18	85	153	27	106	31	6	27	59	12	-	2	-	118	-	6	15
50	14 x 51	-	11	100	-	121	148	87	45	18	85	153	27	106	31	6	27	59	12	-	2	-	118	-	6	15
63	00C	A2-A3	12	125	-	136	168	116	50	18	159	145	32	106	36	5.4	32	59	12	-	2	-	118	-	6	15
100	22 x 58	A4	13	135	268	148	184	116	54	18	141	179	36	127	40	5.4	36	62	20	8.5	2.5	19.5	162	141	8	41
160	00	-	13	135	268	148	184	126	54	18	141	189	36	127	40	5.4	36	62	20	8.5	2.5	19.5	162	141	8	41
160	0	B1-B2	14	145	268	190	240	136	64	18	174	229	50	140	54	5.4	50	62	20	8.5	2.5	19.5	162	141	8	41
250	1	B1-B2-B3	15	154	345	234	294	146	86	25	185	251	60	162	64	6.4	60	84	32	11	2.5	19.5	195	166	17	52
400	2	B1-B2-B3-B4	16	157	255	252	318	149	91	25	200	260	66	172	70	6.4	66	84	50	11	3	20	205	175	14.5	54

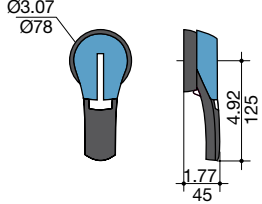
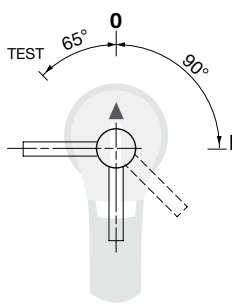
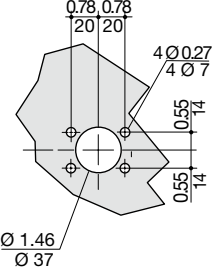
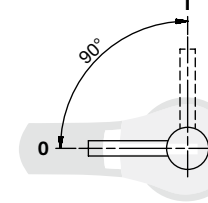
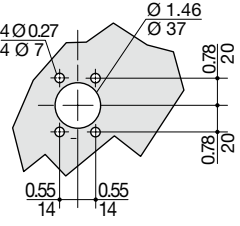
## Dimensions for external operation handles

BS88 - 32 to 63 A - NFC and DIN - 63 A

Handle type	Front operation		Side operation	
	Direction of operation	Door drilling	Direction of operation	Door drilling
<b>S1 type</b> Box size 0  				

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BS88 / NFC and DIN - 100 to 400 A

Handle type	Front operation		Side operation	
	Direction of operation	Door drilling	Direction of operation	Door drilling
<b>S2 type</b> Box size 11-16  				

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