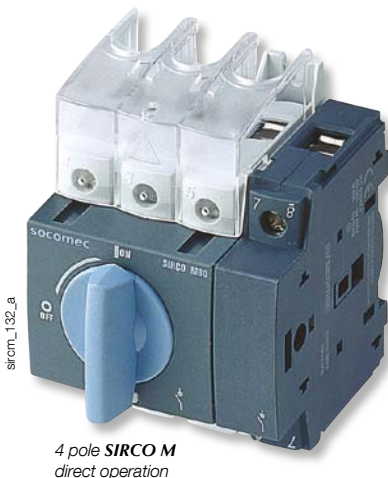




SIRCO M and MV

Universal load break switches
from 16 to 160 A

Load break
switches



Function

SIRCO M and **MV** are manually operated modifiable and modular multipolar load break switches.

They make and break under load conditions and provide safety isolation for any low voltage circuit, particularly for machine control circuits.

Through the use of accessories, **SIRCO M** can be transformed into multipolar load break or 3/4 pole changeover switches. **SIRCO M** changeover switches provide on load changeover switching between two sources or two low voltage power circuits, as well as their safety isolation.

Advantages

Total integration

The **SIRCO M** and **MV** fully integrate isolation, breaking and switching functions.

Within a single product, **SIRCO M** offers front, right side or left side operation. Their highly functional design enables the product to be easily transformed from a load break switch to a changeover switch, offering a highly innovative modular solution for numerous applications.

A wide range of accessories

A single standard module, which can be complemented with a choice of accessories, offers a range of advantages:

- Simplicity when choosing the device.
- Flexibility to adapt to the most varied applications.
- Reduction in the cost of management and storage.

Upgradeability

Its wide range of accessories means that the **SIRCO M** can be upgraded even after it has been commissioned, enabling future requirements to be met.

Compliance with major certifications and approvals

The **SIRCO M** and **MV** range of load break switches have been designed, qualified and tested according to the criteria defined by standards IEC 60947-3, UL508 and UL98.

This process guarantees a high quality level for the product which is fully adapted to arduous operating environments.

General characteristics

- Double break per pole.
- Mounting options: DIN rail, panel or modular panel with 45 mm front cut out.
- IP20 accessories and device.
- Severe utilisation categories (AC-22 and AC-23).

Specific characteristics

SIRCO M:

- Positive break indication.
- Contact point technology.
- Product can be mounted directly on the door or panel side; see "Door mounting kit" in the accessory section.

SIRCO MV:

- Visible double breaking based on a sliding contact system (**SIRCO** type, see page
- Positive break indication.

The solution for

- > Main incoming load break
- > Distribution load break
- > Machine control
- > Local safety load break



Strong points

- > Total integration
- > A wide range of accessories
- > Upgradeability
- > Compliance with major certifications and approvals
- > Specific characteristics

Conformity to standards

- > IEC 60947-3



- > Other standards available



*See pages **SIRCO UL** and **CSA** range

Approvals and certifications⁽¹⁾



(1) Product reference on request.

What you need to know

SIRCO M

- SIRCO M can be operated in 3 different ways:



Complete switch body for toggle operation



Direct front operation with handle



External operation
front, left side or right side

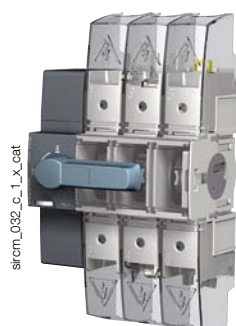
- The SIRCO M is a **3 pole** load break switch which is available from **16 to 125 A**. It can be combined with a switched 4th pole, an unswitched neutral or PE pole and pre-break and signalling auxiliary contacts.
page 726).
- From **16 to 125 A**, through the wide range of available accessories, it is possible to convert a 3 pole load break switch into a **4, 6 or 8 pole load break switch** or a **3/4 pole changeover switch**. Through use of its door mounting kit, SIRCO M load break switches can be mounted on the panel door.



Changeover switches I - 0 - II

SIRCO MV

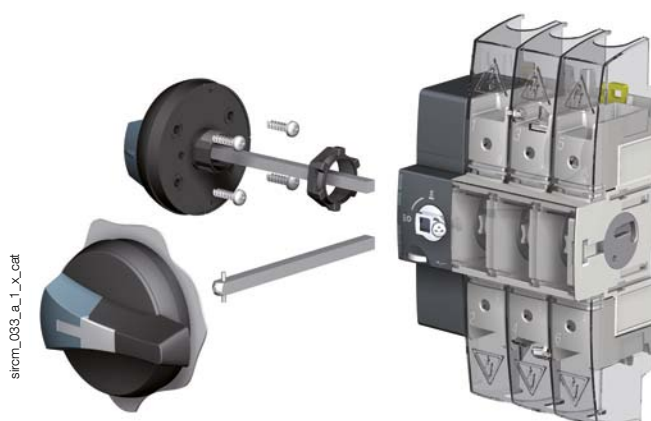
- 3 operations are available:



Direct front operation



External **right side** operation



External **front and left side** operation

- SIRCO MV can be ordered in **3 or 4 pole** from **100 to 160 A**.
- Two types of auxiliary contacts are available:
 - U-type pre-break,
 - M-type for signalisation.

References

SIRCO M

SIRCO M - from 16 to 125 A									
Rating (A) / Frame size	No. of poles	Complete switch body toggle operation	Switch body	Direct handle	Door interlocked external front and right side handle ⁽⁸⁾	External left side handle ⁽⁸⁾	Front external handle for changeover switches ⁽⁸⁾	Shaft for external front and side handle ⁽⁸⁾	4 th pole
16 A / M1	3 P	2205 3000	2200 3000 ⁽¹⁾⁽²⁾⁽³⁾	M00 type Blue 2299 5012 Red 2299 5013	S00 type I - 0 Black IP55 1471 1111 ⁽⁴⁾ Black IP65 1473 1111 ⁽⁴⁾ Red/Yellow IP65 1474 1111 ⁽⁴⁾	S00 type I - 0 Black IP65 147A 5111 Red/Yellow IP65 147B 5111	S00 type I - 0 - II Black IP65 1473 1113 ⁽⁴⁾ I - I+II - II Black IP65 1473 1114 ⁽⁴⁾	S0, S00 type 150 mm 1407 0515 200 mm 1407 0520 320 mm 1407 0532	2200 1000
20 A / M1	3 P	2205 3001	2200 3001 ⁽¹⁾⁽²⁾⁽³⁾						2200 1001
25 A / M1	3 P	2205 3002	2200 3002 ⁽¹⁾⁽²⁾⁽³⁾						2200 1002
32 A / M1	3 P	2205 3003	2200 3003 ⁽¹⁾⁽²⁾⁽³⁾						2200 1003
40 A / M1	3 P	2205 3004	2200 3004 ⁽¹⁾⁽²⁾⁽³⁾						2200 1004
63 A / M2	3 P	2205 3006	2200 3006 ⁽¹⁾⁽²⁾⁽³⁾						2200 1006
80 A / M2	3 P	2205 3008	2200 3008 ⁽¹⁾⁽²⁾⁽³⁾						2200 1008
100 A / M3	3 P		2200 3010 ⁽¹⁾⁽²⁾⁽³⁾	M01 type Blue 2299 5032	S0 type I - 0 Black IP55 1481 1111 ⁽⁴⁾ Black IP65 1483 1111 ⁽⁴⁾ Red/Yellow IP65 1484 1111 ⁽⁴⁾	S0 type I - 0 Black IP65 148A 5111 Red/Yellow IP65 148B 5111	S00 type I - 0 - II Black IP65 1473 0113 I - I+II - II Black IP65 1473 0114		2200 1010
125 A / M3	3 P		2200 3011 ⁽¹⁾⁽²⁾⁽³⁾						2200 1011

(1) Front and side operation.

(2) For a 6-pole device in direct operation, order 2 x 3 pole device + conversion kit (for external operation, add the shaft + the handle).

(3) For an 8-pole device in direct operation, order 2 x 3 pole device + 2 x 4th poles + conversion kit (for external operation, add the shaft + the handle).

(4) Defeatable handle.

(5) Top and bottom.

(6) Delivered with a direct handle.

(7) Delivered with a shaft.

(8) Other handles are available. Please see accessory pages.

SIRCO M

SIRCO M - from 16 to 125 A									
Rating (A) / Frame size	No. of poles	Complete switch body toggle operation	Switch body	Unswitched neutral pole	Unswitched protective earth module	Auxiliary contact	Terminal shrouds	Door mounting kit	
16 A / M1	3 P	2205 3000	2200 3000 ⁽¹⁾⁽²⁾⁽³⁾	1 P 2200 5005	1 P 2200 9005	M type 1 contact NO + NC 2299 0001	1 P 2294 1005 ⁽⁵⁾ 3 P 2294 3005 ⁽⁵⁾	3/4 P Complete protection IP2X 2299 3309 ⁽⁷⁾ Compact design 2299 3409 ⁽⁷⁾	
20 A / M1	3 P	2205 3001	2200 3001 ⁽¹⁾⁽²⁾⁽³⁾						
25 A / M1	3 P	2205 3002	2200 3002 ⁽¹⁾⁽²⁾⁽³⁾						
32 A / M1	3 P	2205 3003	2200 3003 ⁽¹⁾⁽²⁾⁽³⁾						
40 A / M1	3 P	2205 3004	2200 3004 ⁽¹⁾⁽²⁾⁽³⁾						
63 A / M2	3 P	2205 3006	2200 3006 ⁽¹⁾⁽²⁾⁽³⁾	1 P 2200 5009	1 P 2200 9009	1 contact 2 NC 2299 0011	1 P 2294 1009 ⁽⁵⁾ 3 P 2294 3009 ⁽⁵⁾	6/8 P Steel support 2299 3609 ⁽⁷⁾	
80 A / M2	3 P	2205 3008	2200 3008 ⁽¹⁾⁽²⁾⁽³⁾						
100 A / M3	3 P		2200 3010 ⁽¹⁾⁽²⁾⁽³⁾	1 P 2200 5011	1 P 2200 9011		1 P 2294 1011 ⁽⁵⁾ 3 P 2294 3016 ⁽⁵⁾	3/4 P Steel support 2299 3609 ⁽⁷⁾	
125 A / M3	3 P		2200 3011 ⁽¹⁾⁽²⁾⁽³⁾						

(1) Front and side operation.

(2) For a 6-pole device in direct operation, order 2 x 3 pole device + conversion kit (for external operation, add the shaft + the handle).

(3) For an 8-pole device in direct operation, order 2 x 3 pole device + 2 x 4th poles + conversion kit (for external operation, add the shaft + the handle).

(4) Defeatable handle.

(5) Top and bottom.

(6) Delivered with a direct handle.

(7) Delivered with a shaft.

(8) Other handles are available. Please see accessory pages.

SIRCO MV

SIRCO M - from 100 to 160 A									
Rating (A)	No. of poles	Switch body	Direct handle	Door interlocked external front and right side handle ⁽⁴⁾	External left side handle ⁽⁴⁾	Shaft for external front and side handle ⁽⁴⁾	Auxiliary signal contact	Pre-break auxiliary contact	Terminal shrouds
100 A	3 P	2200 3110	MOb type Blue 2299 5042 ⁽¹⁾ M0 type Blue 2299 5022	S0 type I-O Black IP55 1491 0111 ⁽²⁾ Black IP65 1493 0111 ⁽²⁾ Red/Yellow IP65 1494 0111 ⁽²⁾	S0 type I-O Black IP65 149A 9111 Red/Yellow IP65 149B 9111	S0 type 150 mm 1409 0615 200 mm 1409 0620 320 mm 1409 0632	M type 1 contact NO + NC 2299 0001 1 contact 2 NC 2299 0011	U type 1 contact NC 3999 0701 1 contact NO 3999 0702	3 P 2294 3016 ⁽³⁾ 4 P 2294 4016 ⁽³⁾
	4 P	2200 4110							
125 A	3 P	2200 3012							
	4 P	2200 4012							
160 A	3 P	2200 3016							
	4 P	2200 4016							

(1) Standard.

(2) Defeatable handle.

(3) Top and bottom.

(4) Other handles are available. Please see accessory pages.

SIRCO M and MV

Universal load break switches

from 16 to 160 A

Accessories

Direct operation handle

For SIRCO M

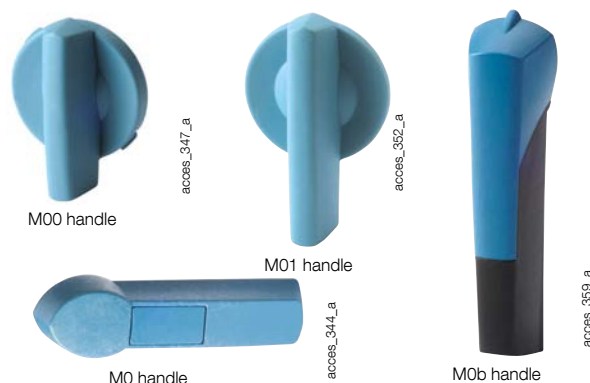
Rating (A) / Frame size	Handle colour	Handle	Reference
16 ... 80 / M1 ... M2	Blue	M00 type	2299 5012 ⁽¹⁾
16 ... 80 / M1 ... M2	Red	M00 type	2299 5013
100 ... 125 / M3	Blue	M01 type	2299 5032 ⁽¹⁾

(1) Standard.

For SIRCO MV

Rating (A)	Handle colour	Handle	Reference
100 ... 160	Blue	M0b type	2299 5042 ⁽¹⁾
100 ... 160	Blue	M0 type	2299 5022

(1) Standard.



External handle operation - SIRCO M

S000 type handle

Rating (A) / Frame size	Type	No. of poles	Operation	Handle colour	External IP	Defeatable handle	Reference
16 ... 80 / M1... M2	Switch	3/4 P	Front and side operation	Black	IP65	no	1463 5111
	Switch	3/4 P	Front and side operation	Red/Yellow	IP65	no	1464 5111
16 ... 80 / M1... M2	Changeover switches I - 0 - II	3/4 P	Front	Black	IP65	no	1463 5113
	Changeover switches I - I+II - II	3/4 P	Front	Black	IP65	no	1463 5114



S000 handle

access_307_a_1_cat

S00 type handle

Rating (A) / Frame size	Type	No. of poles	Operation	Handle colour	External IP	Defeatable handle	Reference
16 ... 80 / M1... M2	Switch	3/4 P ⁽¹⁾	Front and side operation	Black	IP55	yes	1471 1111
	Switch	3/4 P ⁽¹⁾	Front and side operation	Black	IP65	yes	1473 1111
	Switch	3/4 P ⁽¹⁾	Front and side operation	Red/Yellow	IP65	yes	1474 1111
	Switch	3/4 P	Left side	Black	IP65	no	147A 5111
	Switch	3/4 P	Left side	Red/Yellow	IP65	no	147B 5111
100 ... 125 / M3	Switch	6/8 P	Front	Black	IP55	yes	1471 0111
	Switch	6/8 P	Front	Black	IP65	yes	1473 0111
	Switch	6/8 P	Front	Red/Yellow	IP65	yes	1474 0111
16 ... 80 / M1... M2	Changeover switches I - 0 - II	3/4 P	Front	Black	IP65	yes	1473 1113
	Changeover switches I - I+II - II	3/4 P	Front	Black	IP65	yes	1473 1114
100 ... 125 / M3	Changeover switches I - 0 - II	3/4 P	Front	Black	IP65	yes	1473 0113
	Changeover switches I - I+II - II	3/4 P	Front	Black	IP65	yes	1473 0114



S00 handle

access_341_a_1_cat

(1) Can also be used with 6 and 8 poles with front operation.

External operation handle - SIRCO M (continued)

S0 type handle

Rating (A) / Frame size	Type	No. of poles	Operation	Handle colour	External IP	Defeatable handle	Reference
100 ... 125 / M3	Switch	3/4 P	Front and side operation	Black	IP55	yes	1481 1111
	Switch	3/4 P	Front and side operation	Black	IP65	yes	1483 1111
	Switch	3/4 P	Front and side operation	Red/Yellow	IP65	yes	1484 1111
	Switch	3/4 P	Left side	Black	IP65	no	148A 5111
	Switch	3/4 P	Left side	Red/Yellow	IP65	no	148B 5111



access_343_a

S01 type handle

Rating (A) / Frame size	Type	No. of poles	Operation	Handle colour	External IP	Defeatable handle	Reference
16 ... 125 / M1 ... M3	Switch	3/4 P ⁽²⁾	Front and side operation	Black	IP65	yes	1403 2111
	Switch	3/4 P ⁽²⁾	Front and side operation	Red/Yellow	IP65	yes	1404 2111
16 ... 125 / M1 ... M3	Changeover switches I - 0 - II	3/4 P	Front	Black	IP65	yes	1403 2113
	Changeover switches I - 0 - II	3/4 P	Front	Black	IP65	yes	1403 2813 ⁽¹⁾
	Changeover switches I - I+II - II	3/4 P	Front	Black	IP65	yes	1403 2114
	Changeover switches I - I+II - II	3/4 P	Front	Black	IP65	yes	1403 2814 ⁽¹⁾

(1) Padlockable in 3 positions.

(2) Can also be used with 6 and 8 pole devices from 16 to 40 A.



S0 handle

S01 handle

access_304_a_1_cat

External operation handle - SIRCO MV

S0 type handle

Rating (A)	Type	No. of poles	Operation	Handle colour	External IP	Defeatable handle	Reference
100 ... 160	Switch	3/4 P	Front and side operation	Black	IP55	yes	1491 0111
100 ... 160	Switch	3/4 P	Front and side operation	Black	IP65	yes	1493 0111
100 ... 160	Switch	3/4 P	Front and side operation	Red/Yellow	IP65	yes	1494 0111
100 ... 160	Switch	3/4 P	Left side	Black	IP65	no	149A 9111
100 ... 160	Switch	3/4 P	Left side	Red/Yellow	IP65	no	149B 9111



S0 handle

access_343_a

S1 type handle

Rating (A)	Type	No. of poles	Operation	Handle colour	External IP	Defeatable handle	Reference
100 ... 160	Switch	3/4 P	Front	Black	IP55	yes	1411 2111
100 ... 160	Switch	3/4 P	Front	Black	IP65	yes	1413 2111
100 ... 160	Switch	3/4 P	Front	Red/Yellow	IP65	yes	1414 2111
100 ... 160	Switch	3/4 P	Right side	Black	IP55	no	1415 2111
100 ... 160	Switch	3/4 P	Right side	Black	IP65	no	1417 2111
100 ... 160	Switch	3/4 P	Right side	Red/Yellow	IP65	no	1418 2111
100 ... 160	Switch	3/4 P	Left side	Black	IP65	no	141A 2111
100 ... 160	Switch	3/4 P	Left side	Red/Yellow	IP65	no	141B 2111



S1 Handle

access_284_a_2_cat

Accessories (continued)

Shaft for external handle

SIRCO M 3/4 P

Rating (A) / Frame size	Handle type	Type	Length (mm)	Reference
16 ... 125 / M1... M3	S000 / S00 / S0	Switch	150 mm	1407 0515
	S000 / S00 / S0	Switch	200 mm	1407 0520
	S000 / S00 / S0	Switch	320 mm	1407 0532
	S01	Switch	200 mm	1404 0520
	S01	Switch	320 mm	1404 0532
	S01	Switch	400 mm	1404 0540



access_346_a_1_cat

SIRCO M 6/8 pole load break switch and 3/4 pole changeover switch

Rating (A)	Handle type	Type	Length (mm)	Reference
16 ... 80 / M1...M2	S000, S00	6/8 P and changeover switch	150 mm	1407 0515
	S000, S00	6/8 P and changeover switch	200 mm	1407 0520
	S000, S00	6/8 P and changeover switch	320 mm	1407 0532
100 ... 125 / M3	S00	6/8 P and changeover switch	150 mm	1409 0615
	S00	6/8 P and changeover switch	200 mm	1409 0620
	S00	6/8 P and changeover switch	320 mm	1409 0632
16 ... 40 / M1 ... M2	S01	6/8 P	200 mm	1404 0520
	S01	6/8 P	320 mm	1404 0532
	S01	6/8 P	400 mm	1404 0540
	S01	Changeover switch	200 mm	1404 0520
	S01	Changeover switch	320 mm	1404 0532
	S01	Changeover switch	400 mm	1404 0540
100 ... 125 / M3	S01	Changeover switch	200 mm	1404 0520
	S01	Changeover switch	320 mm	1404 0532

Use

Standard lengths:

- 150 mm,
- 200 mm,
- 320 mm,
- 400 mm.

Other lengths: Please consult us.

For 3/4 pole switches, shaft extensions are for external front and side operation.

For 6/8 pole switches and changeover switches, shaft extensions for front operation only.

For SIRCO MV

Rating (A)	Handle type	Type	Length (mm)	Reference
100 ... 160	S0	Switch	150 mm	1409 0615
100 ... 160	S0	Switch	200 mm	1409 0620
100 ... 160	S0	Switch	320 mm	1409 0632
100 ... 160	S1	Switch	200 mm	1401 0620
100 ... 160	S1	Switch	320 mm	1401 0632
100 ... 160	S1	Switch	400 mm	1401 0640

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 length over 320 mm.

Description	Handle type	To be ordered in multiples of	Reference
Shaft guide	S00 and S0 / S000	10 pieces	1419 0000
Shaft guide	S01 and S1	1 piece	1429 0000



access_280_a_2_cat

Additional pole for SIRCO M

Switched fourth pole module

Rating (A) / Frame size	No. of poles	Type	Reference
16 / M1	1 P	switched	2200 1000
20 / M1	1 P	switched	2200 1001
25 / M1	1 P	switched	2200 1002
32 / M1	1 P	switched	2200 1003
40 / M1	1 P	switched	2200 1004
63 / M2	1 P	switched	2200 1006
80 / M2	1 P	switched	2200 1008
100 / M3	1 P	switched	2200 1010
125 / M3	1 P	switched	2200 1011

Use

Adds one or two poles and transforms:

- a 3 pole SIRCO M into a 4 pole load break switch,
- a 6 pole SIRCO M into a 8 pole load break switch,
- a 3 pole SIRCO M into a 4 pole changeover switch.



4th pole

Protective earth module

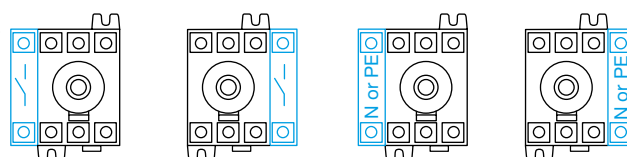
Neutral pole

Neutral pole

Rating (A) / Frame size	No. of poles	Type	Reference
16 ... 40 / M1	1 P	unswitched	2200 5005
63 ... 80 / M2	1 P	unswitched	2200 5009
100 ... 125 / M3	1 P	unswitched	2200 5011

Use

Transforms the 3-pole switch into a 3-pole + solid neutral.

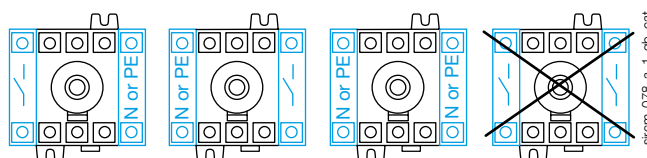


Protective earth module

Rating (A) / Frame size	No. of poles	Type	Reference
16 ... 40 / M1	1 P	unswitched	2200 9005
63 ... 80 / M2	1 P	unswitched	2200 9009
100 ... 125 / M3	1 P	unswitched	2200 9011

Use

Adds 1 protective earth module pole to the switch-disconnector.



Additional pole configuration

Terminal shrouds

Use

Top and bottom protection against direct contact with the terminals or connection parts.

Available in 1 or 3 pole versions for SIRCO M and in 3 or 4 pole versions for SIRCO MV.

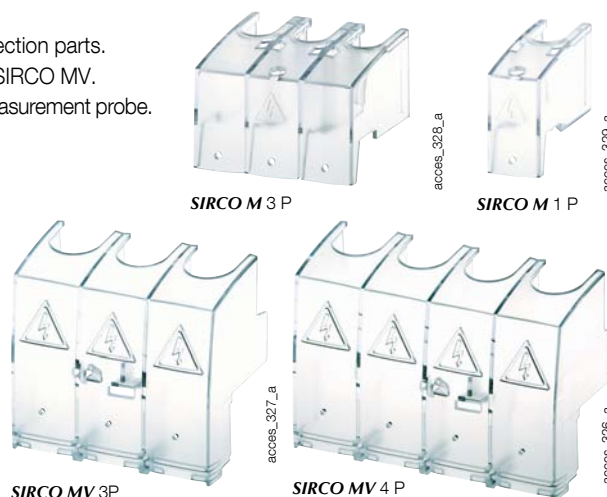
An opening on each terminal cover makes it possible to insert a temperature measurement probe.

For SIRCO M

Rating (A) / Frame size	No. of poles	Position	Reference
16 ... 40 / M1	1 P	top and bottom	2294 1005
16 ... 40 / M1	3 P	top and bottom	2294 3005
63 ... 80 / M2	1 P	top and bottom	2294 1009
63 ... 80 / M1	3 P	top and bottom	2294 3009
100 ... 125 / M3	1 P	top and bottom	2294 1011
100 ... 125 / M3	3 P	top and bottom	2294 3016

For SIRCO MV

Rating (A)	No. of poles	Position	Reference
100 ... 160	3 P	top and bottom	2294 3016
100 ... 160	4 P	top and bottom	2294 4016



Accessories (continued)

M type auxiliary contacts

Use

Pre-break and signalisation of positions 0 and I by NO+NC or 2 NO auxiliary contacts.

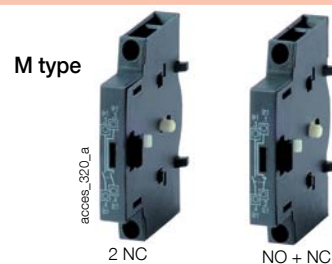
They allow to anticipate the switching of the main poles. They can be mounted on the left or on the right side of the device.

Max 4 auxiliary contacts (2 modules).

Pre-break is not guaranteed on the SIRCO MV.

Characteristics

NO+NC auxiliary contacts: IP2 with front operation.



For SIRCO M

Rating (A) / Frame size	Number of AC	Type of AC	Reference
16 ... 125 / M1...M3	1 AC	NO + NC	2299 0001
	1 AC	2 NO	2299 0011

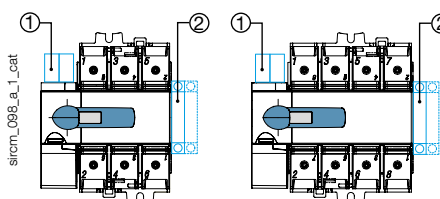
For SIRCO MV

Rating (A)	Number of AC	Type of AC	Reference
100 ... 160	1 AC	NO + NC	2299 0001
100 ... 160	1 AC	2 NO	2299 0011

Characteristics

Contact type	Nominal current (A)	Operating current I _e (A)	
		AC-13	AC-15
NO + NC	10	10	6

Auxiliary contact configurations for SIRCO MV



1. Maximum 2 "U" type auxiliary contacts.
2. Maximum 2 "M" type auxiliary contact modules.

For SIRCO MV

Rating (A)	Number of AC	Type of AC	Reference
100 ... 160	1 AC	NC	3999 0701
100 ... 160	1 AC	NO	3999 0702

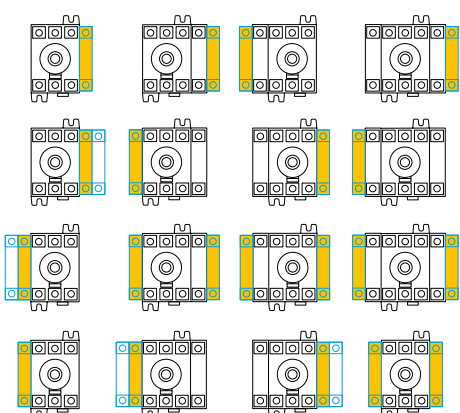
Characteristics

Contact type	Nominal current (A)	Operating current I _e (A)			
		250 VAC AC-15	400 VAC AC-15	24 VDC DC-13	48 VDC DC-13
NC	10	3	1.8	2.8	1.4
NO	10	3	1.8	2.8	1.4

Auxiliary contacts configurations for SIRCO M

Max: 2 blocks / Max: 2 AC

Pre-break No Pre-break



U type



Use

Pre-break and signalisation by NO or NC auxiliary contact can be mounted on the device. Maximum 2 auxiliary contacts. Only available for SIRCO MV switches.

Conversion kit

Use

It must be ordered together with the handle for external control.

This accessory enables the assembly of two 3 pole switches (+ additional pole) in order to create :

- a 6 or 8 pole SIRCO M load break switch,
- a 3 or 4 pole SIRCO M changeover switch.

Load break switches 6/8 P

Rating (A) / Frame size	Type	Reference
16 ... 80 / M1 ... M2	6/8 P switch	2269 6009
100 ... 125 / M3	6/8 P switch	2269 6011

Changeover switches I - 0 - II

Rating (A) / Frame size	Type	Reference
16 ... 80 / M1 ... M2	Changeover switches I - 0 - II	2209 6009
100 ... 125 / M3	Changeover switches I - 0 - II	2209 6011

SIRCO M changeover switches provide on load changeover switching between two sources or two low voltage power circuits, as well as their safety isolation (I - 0 - II); transfer without interruption of the supply is also possible (I - I+II - II).

Changeover switches I - I+II - II

Rating (A) / Frame size	Type	Reference
16 ... 80 / M1 ... M2	Changeover switches I - I+II - II	2299 6009
100 ... 125 / M3	Changeover switches I - I+II - II	2299 6011



Conversion kit for 6 or 8 pole load break switches



Conversion kit for changeover switches I - 0 - II



Conversion kit for changeover switches I - I+II - II

Door mounting kit⁽¹⁾

Use

This kit enables a direct mounting of the switch on the door panel, on the right or left side of the panel.

The connection clamps of the switch are always accessible.

The external handle is quick and easy to install with the supplied internal locking nut mounted on the inside of the enclosure.

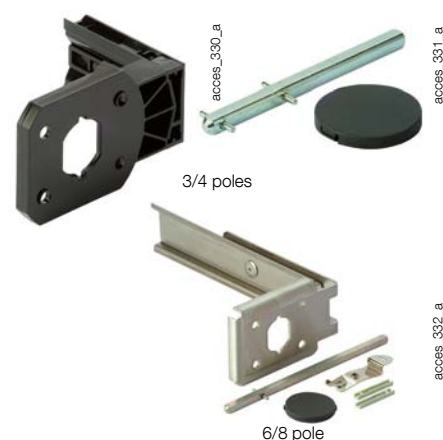
3 kits are available:

- one for complete protection IP2X
- one with compact design
- one in steel for 6/8 P and 100/125 A.

For SIRCO M

(1) Kit compatible with S00 type handle only.

Rating (A) / Frame size	No. of poles	Description	Reference
16 ... 80 / M1 ... M2	3/4 P	Complete protection IP2X	2299 3309
	3/4 P	Compact version	2299 3409
	6/8 P	Metallic support	2299 3609
100 ... 125	3/4 P	Metallic support	2299 3609



Cap for side operation mounting

Use

This accessory enables the front face of the SIRCO M to be capped when the switch is side operated. 20 pieces supplied per pack.

This piece snaps into place directly on the front face of the switch.

For SIRCO M

Rating (A) / Frame size	Pack	Reference
16 ... 125 / M1 ... M3	20 pieces	2299 9409



6/8 pole joining accessory

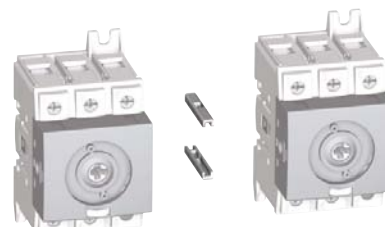
Use

This accessory enables two 3/4 pole switches to be coupled in order to provide a 6 or 8 pole switch for external side operation. 40 pieces supplied per pack.

For multi-pole switches, please consult us.

For SIRCO M

Rating (A) / Frame size	Pack	Reference
16 ... 80 / M1 ... M2	40 pieces	2299 9909



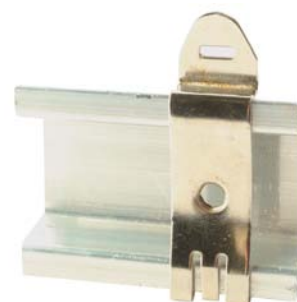
DIN rail locking clip

Use

This locking clip prevents the SIRCO MV from sliding when DIN rail mounted.

For SIRCO MV

Rating (A)	Type	Reference
100 ... 160	Locking clip M4	5000 0041
100 ... 160	Locking clip M5	5000 0051



Voltage sensing and power supply tap

Use

It allows connection of 2x ≤1.5 mm² voltage sensing or power cables.

This single-pole voltage sensing tap allows the connection of 2 x ≤1.5 mm² voltage sensing or power cables to any SIRCO MV power terminal without reducing its connection capacity.

For SIRCO MV

Rating (A)	Pack	Reference
100 ... 160	2 pieces	1399 4006



Characteristics

Characteristics according to IEC 60947-3

	SIRCO M - from 16 to 125 A								
Thermal current I_{th} (40 °C)	16 A	20 A	25 A	32 A	40 A	63 A	80 A	100 A	125 A
Frame size	M1	M1	M1	M1	M1	M2	M2	M3	M3
Rated insulation voltage U_i (V)	800	800	800	800	800	800	800	800	800
Rated impulse withstand voltage U_{imp} (kV)	8	8	8	8	8	8	8	8	8

Rated operational currents I_e (A)

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
415 VAC	AC-21 A / AC-21 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
415 VAC	AC-22 A / AC-22 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
415 VAC	AC-23 A / AC-23 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
500 VAC	AC-20 A / AC-20 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
500 VAC	AC-21 A / AC-21 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
500 VAC	AC-22 A / AC-22 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
500 VAC	AC-23 A / AC-23 B	16/16	20/20	25/25	25/25	25/25	63/63	63/63	80/80	100/100
690 VAC	AC-20 A / AC-20 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
690 VAC	AC-21 A / AC-21 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
690 VAC	AC-22 A / AC-22 B	16/16	20/20	25/25	32/32	32/40	40/63	63/80	80/100	100/125
690 VAC	AC-23 A / AC-23 B	16/16	20/20	25/25	25/25	25/25	40/40	40/40	63/63	63/63
110 VDC	DC-20 A / DC-20 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
110 VDC	DC-21 A / DC-21 B	16/16 ⁽²⁾	20/20 ⁽²⁾	25/25 ⁽²⁾	32/32 ⁽²⁾	40/40 ⁽²⁾	63/63 ⁽²⁾	80/80 ⁽²⁾	100/100 ⁽²⁾	125/125 ⁽²⁾
250 VDC	DC-20 A / DC-20 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
250 VDC	DC-21 A / DC-21 B	16/16 ⁽³⁾	20/20 ⁽³⁾	25/25 ⁽³⁾	32/32 ⁽³⁾	40/40 ⁽³⁾	63/63 ⁽³⁾	80/80 ⁽³⁾	100/100 ⁽³⁾	125/125 ⁽³⁾
400 VDC	DC-20 A / DC-20 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80	100/100	125/125
400 VDC	DC-21 A / DC-21 B	16/16 ⁽⁴⁾	20/20 ⁽⁴⁾	25/25 ⁽⁴⁾	25/25 ⁽⁴⁾	25/25 ⁽⁴⁾	40/40 ⁽⁴⁾	40/40 ⁽⁴⁾	63/63 ⁽⁴⁾	63/63 ⁽⁴⁾

Operational power in AC-23 (kW)

400 VAC without pre-break AC(kW) ⁽⁵⁾	7.5	9	11	15	18.5	30	37	45	55
500 VAC without pre-break AC(kW) ⁽⁵⁾	7.5	9	11	15	18.5	30	37	45	55
690 VAC without pre-break AC(kW) ⁽⁵⁾	7.5	11	15	15	15	30	37	45	55

Fuse protected short-circuit withstand (kA rms prospective)⁽⁶⁾

Prospective short-circuit current (kA rms)	50	50	50	50	50	50	50	25	25
Associated fuse rating (A)	16	20	25	32	40	63	80	100	125

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s

Rated short-time withstand current 0.3s. I_{cw} (kA rms)	2.5	2.5	2.5	2.5	2.5	3	3	5	5
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Short-circuit capacity (without protection)

Rated short-time withstand current 1s. I_{cw} (kA rms)	1.26	1.26	1.26	1.26	1.26	1.5	1.5	2.75	2.75
Rated peak withstand current (kA peak) ⁽⁶⁾	6	6	6	6	6	9	9	12	12

Connection

Maximum Cu cable cross-section (mm ²)	1.5	1.5	1.5	1.5	1.5	2.5	2.5	10	10
Maximum Cu cable cross-section (mm ²)	16	16	16	16	16	35	35	70	70
Tightening torque min/max (Nm)	2 / 2.2	2 / 2.2	2 / 2.2	2 / 2.2	2 / 2.2	3.5 / 3.85	3.5 / 3.85	4/4.4	4/4.4

Mechanical characteristics

Durability (number of operating cycles)	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000
Operating effort - 3 pole device (Nm)	1	1	1	1	1	1.4	1.4	1.6	1.6
Operating effort - 4 pole device (Nm)	1.2	1.2	1.2	1.2	1.2	1.6	1.6	2	2
Weight of a 3 pole device (kg)	0.18	0.18	0.18	0.18	0.18	0.27	0.27	0.55	0.55
Weight of a 4 pole device (kg)	0.23	0.23	0.23	0.23	0.23	0.33	0.33	0.72	0.72
Weight of a 6 pole device (kg)	0.40	0.40	0.40	0.40	0.40	0.59	0.59	1.30	1.30
Weight of a 8 pole device (kg)	0.50	0.50	0.50	0.50	0.50	0.69	0.69	1.65	1.65
Weight of a 3 pole device (kg)	0.40	0.40	0.40	0.40	0.40	0.59	0.59	1.30	1.30
Weight of a 4 pole device (kg)	0.50	0.50	0.50	0.50	0.50	0.69	0.69	1.65	1.65

(1) Category with index A = frequent operation -

Category with index B = infrequent operation.

(2) One pole per polarity.

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

(4) 4-pole device with 2 poles in series per polarity.

(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_e = 415 VAC.

Characteristics

Characteristics according to IEC 60947-3

	SIRCO MV - from 100 to 160 A		
Thermal current I_{th} (40 °C)	100 A	125 A	160 A
Rated insulation voltage U_i (V)	800	800	800
Rated impulse withstand voltage U_{imp} (kV)	8	8	8

Rated operational currents I_e (A)

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	100/100	125/125	160/160
415 VAC	AC-21 A / AC-21 B	100/100	125/125	160/160
415 VAC	AC-22 A / AC-22 B	100/100	125/125	160/160
415 VAC	AC-23 A / AC-23 B	100/100	125/125	125/160
500 VAC	AC-20 A / AC-20 B	100/100	125/125	160/160
500 VAC	AC-21 A / AC-21 B	100/100	125/125	160/160
500 VAC	AC-22 A / AC-22 B	100/100	125/125	125/160
500 VAC	AC-23 A / AC-23 B	80/80	100/100	100/100
690 VAC	AC-20 A / AC-20 B	100/100	125/125	160/160
690 VAC	AC-21 A / AC-21 B	100/100	125/125	160/160
690 VAC	AC-22 A / AC-22 B	63/80	80/100	100/125
690 VAC	AC-23 A / AC-23 B	63/63	80/80	80/80
110 VDC	DC-20 A / DC-20 B	100/100	125/125	160/160
110 VDC	DC-21 A / DC-21 B	100/100 ⁽²⁾	125/125 ⁽²⁾	160/160 ⁽²⁾
250 VDC	DC-20 A / DC-20 B	100/100	125/125	160/160
250 VDC	DC-21 A / DC-21 B	100/100 ⁽³⁾	125/125 ⁽³⁾	160/160 ⁽³⁾
400 VDC	DC-20 A / DC-20 B	100/100	125/125	160/160
400 VDC	DC-21 A / DC-21 B	100/100 ⁽⁴⁾	125/125 ⁽⁴⁾	160/160 ⁽⁴⁾

Operational power in AC-23 (kW)

400 VAC without pre-break AC(kW) ⁽⁵⁾	45	55	75
500 VAC without pre-break AC(kW) ⁽⁵⁾	45	55	75
690 VAC without pre-break AC(kW) ⁽⁵⁾	45	75	75

Fuse protected short-circuit withstand (kA rms prospective)⁽⁶⁾

Prospective short-circuit current (kA rms)	100	65	50
Associated fuse rating (A)	100	125	160

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s

Rated short-time withstand current 0.3s. I_{cw} (kA rms)	7	7	7
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Short-circuit capacity (without protection)

Rated short-time withstand current 1s. I_{cw} (kA rms)	4	4	4
Rated peak withstand current (kA peak) ⁽⁶⁾	12	12	12

Connection

Maximum Cu cable cross-section (mm ²)	10	10	10
Maximum Cu cable cross-section (mm ²)	70	70	70
Tightening torque min/max (Nm)	4 / 4.4	4 / 4.4	4 / 4.4

Mechanical characteristics

Durability (number of operating cycles)	50 000	50 000	50 000
Operating effort - 3 pole device (Nm)	4	4	4
Operating effort - 4 pole device (Nm)	4.2	4.2	4.2
Weight of a 3 pole device (kg)	0.68	0.68	0.68
Weight of a 4 pole device (kg)	0.85	0.85	0.85

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

(2) One pole per polarity.

(3) 2 poles in series for the "+" and 1 pole for the "-".

(4) 2 poles in series per polarity.

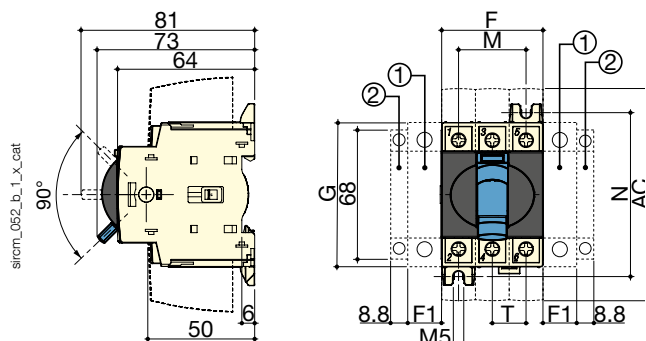
(5) The power value is given for information only, the current values vary from one manufacturer to another.

(6) For a rated operational voltage $U_e = 415$ VAC.

Dimensions

SIRCO M1 and M2 16 to 80 A

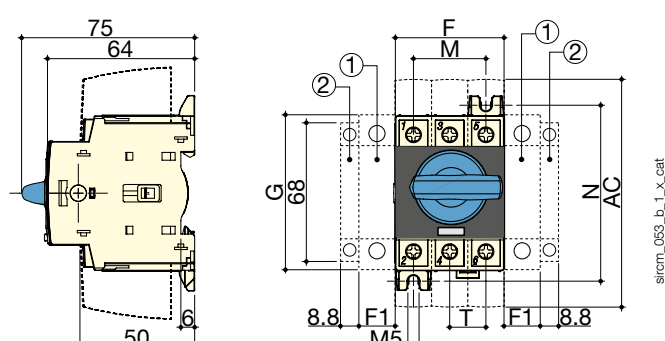
Toggle operation



1. Location for: 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 protective earth module or 1 auxiliary contact.
2. Position for 1 auxiliary contact module only.

Note: max 2 additional blocks.

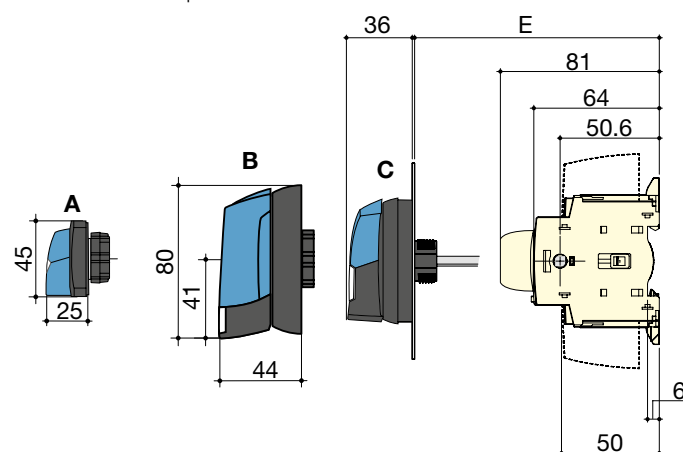
Direct operation with handle



1. Location for: 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 protective earth module or 1 auxiliary contact.
2. Position for 1 auxiliary contact module only.

Note: max 2 additional blocks.

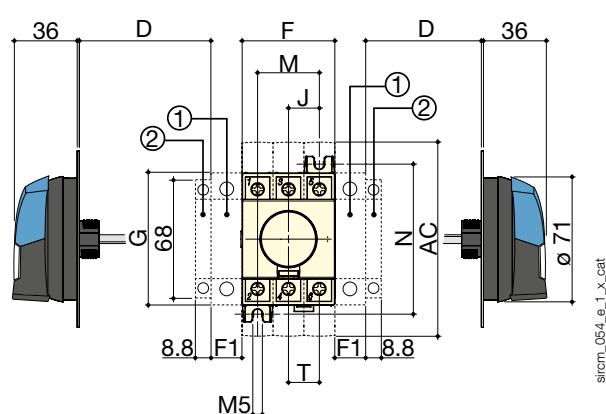
External front operation



1. Location for: 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 protective earth module or 1 auxiliary contact.
2. Position for 1 auxiliary contact module only.

Note: max 2 additional blocks.

External side operation



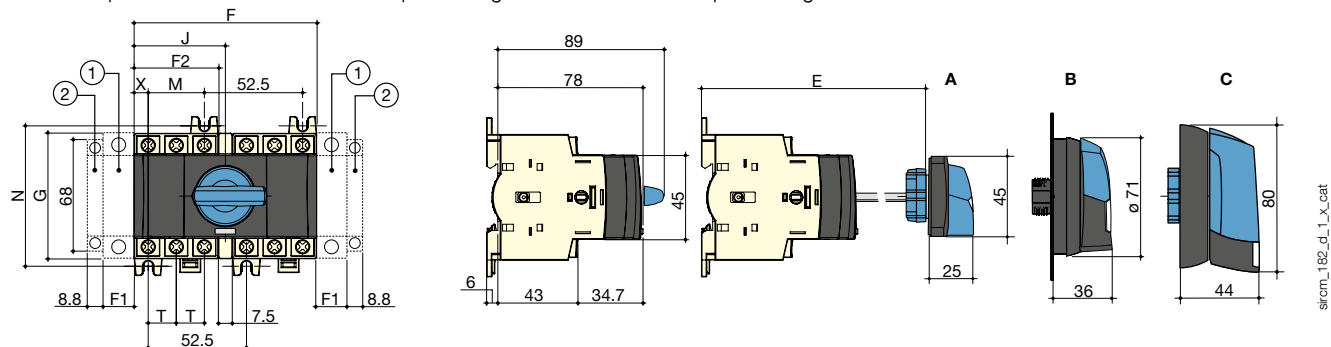
- A. S000 Handle
- B. S01 Handle
- C. S00 Handle.

Rating (A) / Frame size	Overall dimensions				Terminal shrouds		Switch body				Switch mounting		Connection
	D min	D max	E min	E max	AC	F	F1	G	J	M	N	T	
16 ... 40 / M1	30	235	100	372	110	45	15	68	15	30	75	15	
63 ... 80 / M2	30	235	100	372	110	52.5	17.5	76	17.5	35	85	17.5	

SIRCO M1 and M2 16 to 80 A (continued)

Direct front operation for
6/8-pole load break switches or 3/4-pole changeover switches

External front operation for 6/8-pole load break switches or
3/4-pole changeover switches



1. Location for: 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 protective earth module or 1 auxiliary contact.
2. Position for 1 auxiliary contact module only.

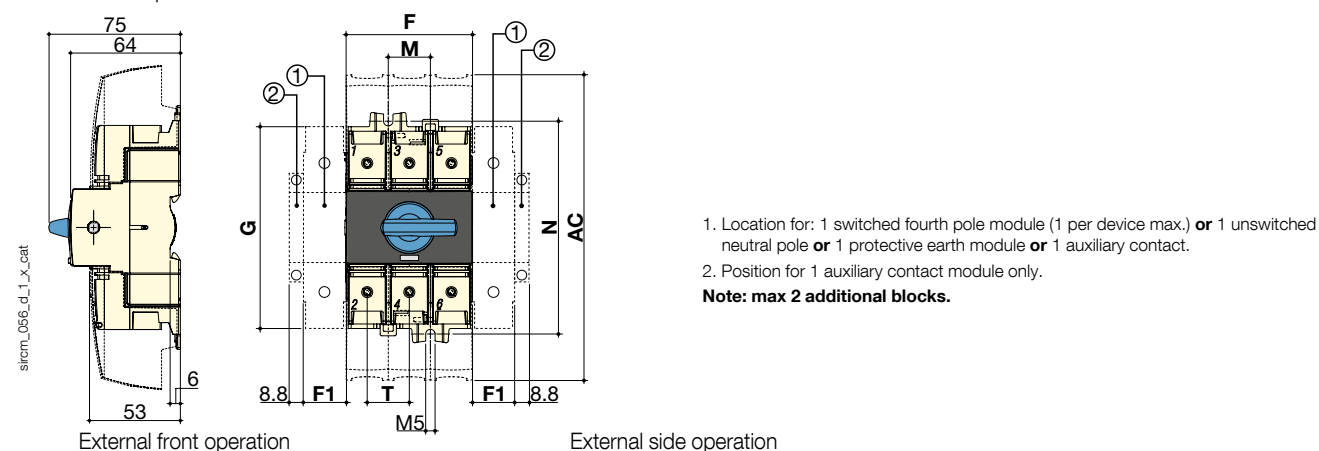
Note: max 2 additional blocks.

- A. S000 handle
B. S00 handle
C. S01 handle

Rating (A) / Frame size	Overall dimensions		Switch body					Switch mounting		Connection	
	E min	E max	F	F1	F2	G	J	M	N	T	X
16 ... 40 / M1	105	372	97.5	15	45	68	48.75	30	75	15	7.5
63 ... 80 / M2	105	372	105	17.5	52.5	76	52.5	35	85	17.5	8.75

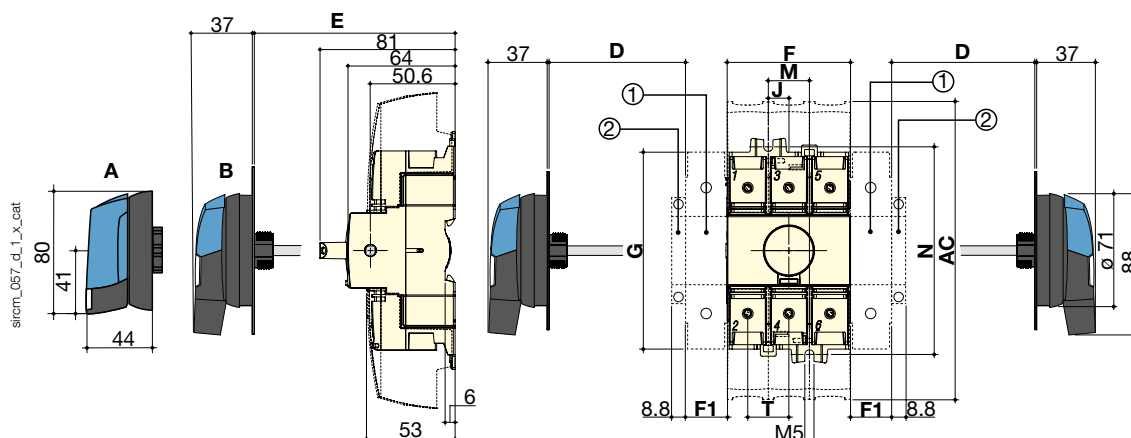
SIRCO M3 100 to 125 A

Direct operation with handle



1. Location for: 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 protective earth module or 1 auxiliary contact.
2. Position for 1 auxiliary contact module only.

Note: max 2 additional blocks.



1. Location for: 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 protective earth module or 1 auxiliary contact.
2. Position for 1 auxiliary contact module only.

Note: max 2 additional blocks.

- A. S01 handle
B. S00 handle

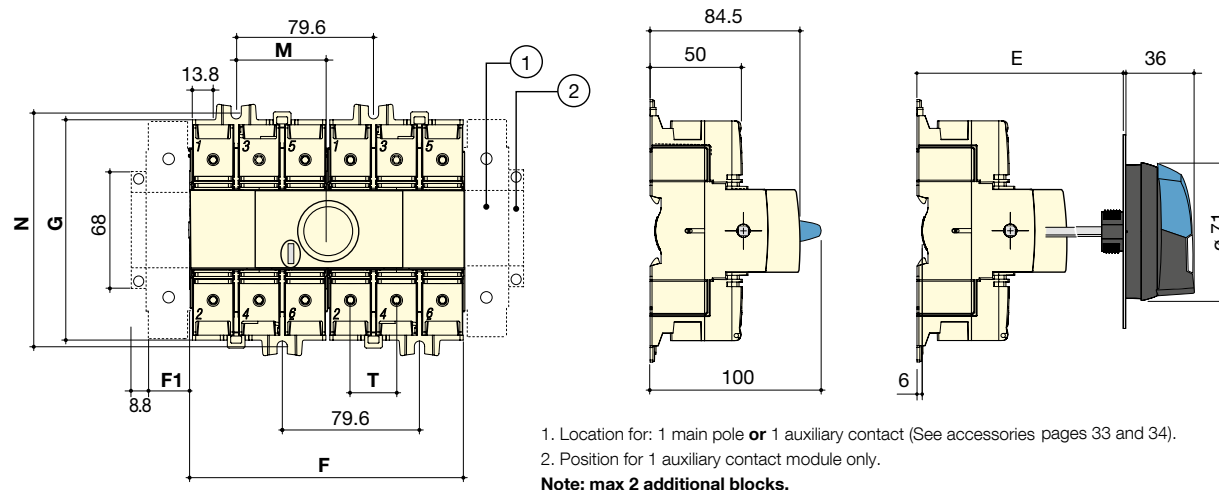
Rating (A) / Frame size	Overall dimensions				Terminal shrouds	Switch body				Switch mounting		Connection
	D min	D max	E min	E max	AC	F	F1	G	J	M	N	T
100 ... 125 / M3	30	201	100	372	189	78	26	124.6	13	26	131.4	26

Dimensions (continued)

SIRCO M3 6/8 P and changeover switch M3 100 to 125 A

Direct front operation for 3/4 pole changeover switches

External front operation for 3 and 4 pole changeover switches



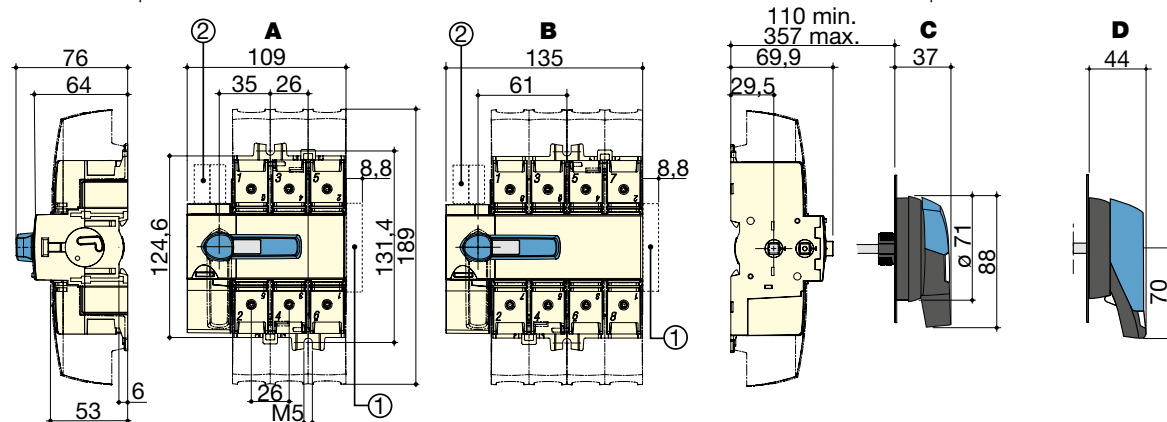
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Rating (A) / Frame size	Overall dimensions		Switch body			Switch mounting		Connection
	E min	E max	F	F1	G	M	N	
100 ... 125 / M3	105	372	159	26	124.5	52.8	131.5	26

SIRCO MV 100 to 160 A

Direct front operation

External front operation

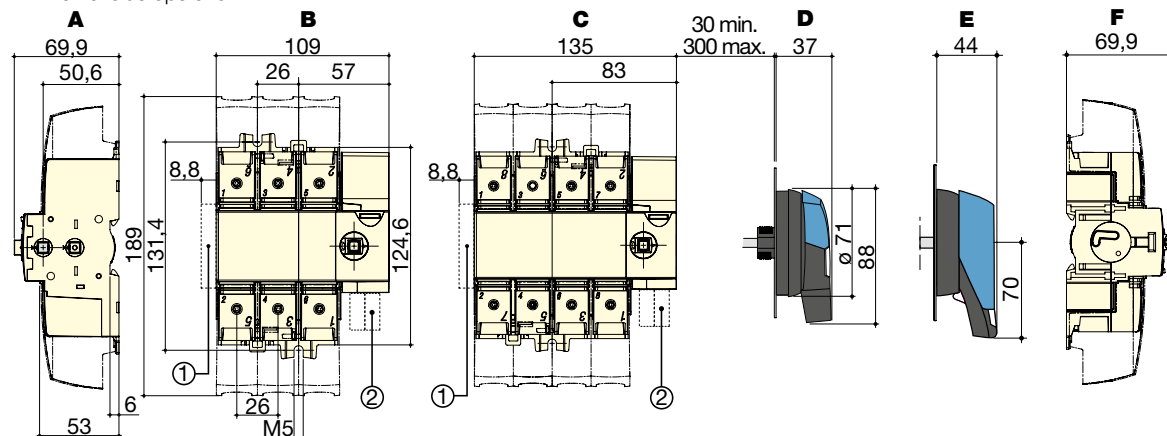


A. 3 poles
B. 4 poles

C. S0 type handle
D. S1 type handle

1. Maximum 4 "M" type auxiliary contacts
2. Maximum 2 "U" type auxiliary contacts

External side operation



A. Right side operation
B. 3 poles
C. 4 poles

D. S0 type handle
E. S1 type handle
F. Left side operation

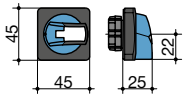
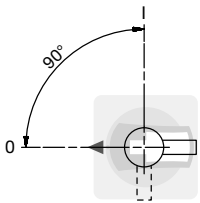
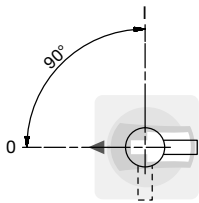
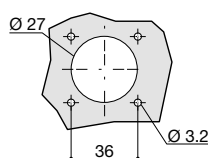
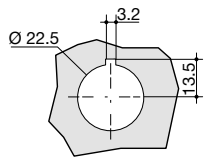
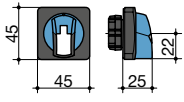
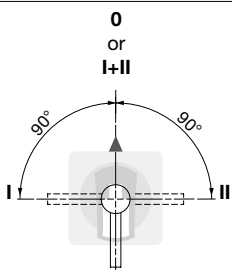
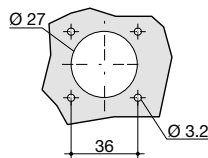
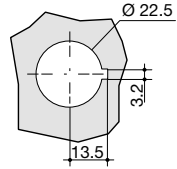
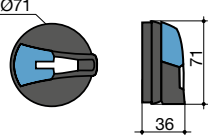
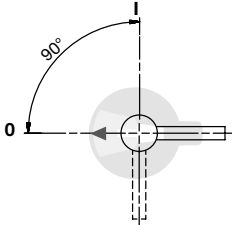
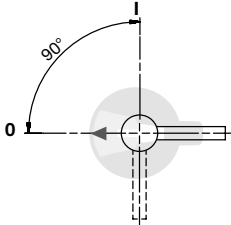
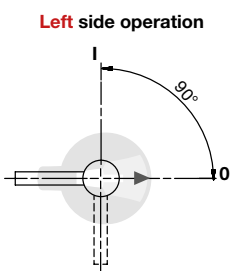
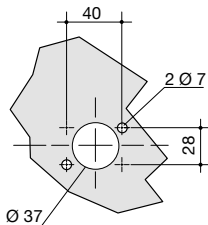
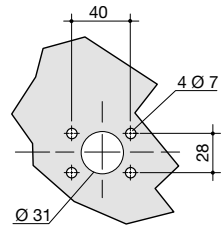
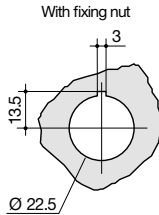
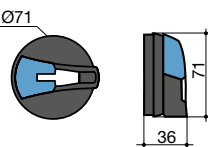
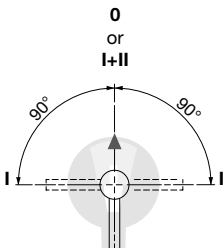
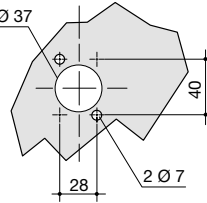
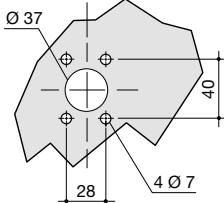
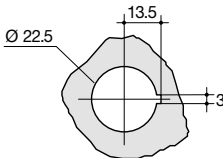
1. Maximum 4 "M" type auxiliary contacts
2. Maximum 2 "U" type auxiliary contacts

sirco_mv_c_1_x_cat

sirco_mv_d_1_x_cat

Dimensions for external handles

SIRCO M1 and M2

Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling	
S000 type Load break switches 		Right side operation 	With 4 fixing screws 	With fixing nut 
Handle type	Front operation Direction of operation		Door drilling	
S000 type Transfer switches I-0-II and I - I+II - II 			With 4 fixing screws 	With fixing nut 
Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling	
S00 type Load break switches 		Right side operation  Left side operation 	IP55 with 2 fixing clips 	IP65 with 4 fixing screws  With fixing nut 
Handle type	Front operation Direction of operation	Door drilling		
S00 type Transfer switches I-0-II and I - I+II - II 		IP55 with 2 fixing clips  IP65 with 4 fixing screws  With fixing nut 		

polgn_016_a_1_gb_cat

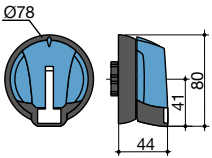
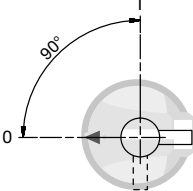
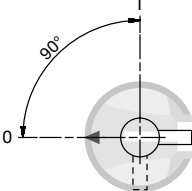
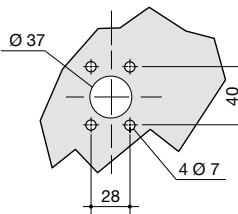
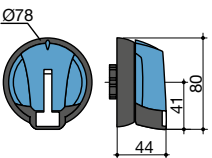
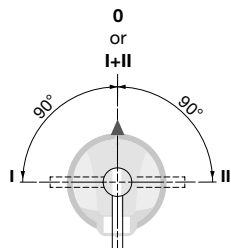
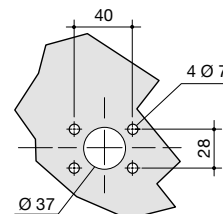
polgn_017_b_1_gb_cat

polgn_024_a_1_gb_cat

polgn_025_b_1_gb_cat

Dimensions for external handles

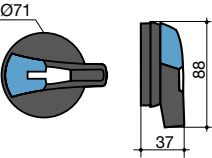
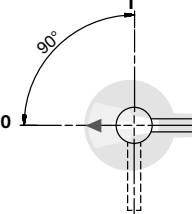
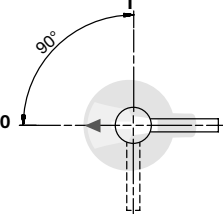
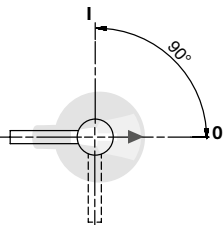
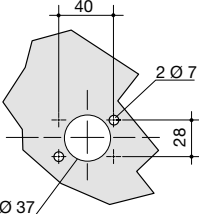
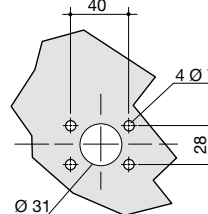
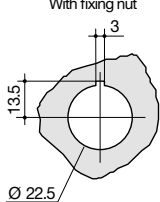
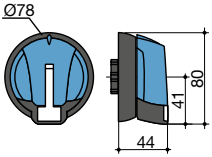
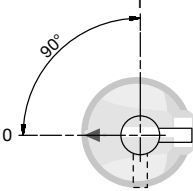
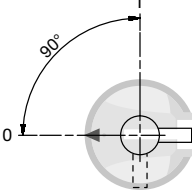
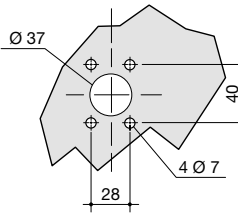
SIRCO M1 and M2 - 3/4 P and 6/8 P

Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S01 type Load break switches 			IP65 with 4 fixing screws 
S01 type Transfer switches I-0-II and I - I+II - II 	Front operation Direction of operation 		IP65 with 4 fixing screws 

poign_018_a_1_glb_cat

poign_019_b_1_glb_cat

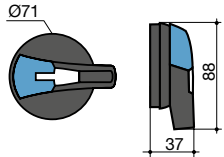
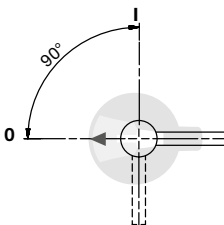
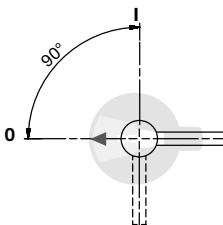
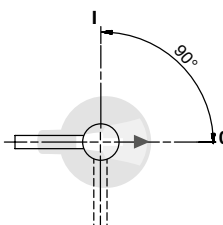
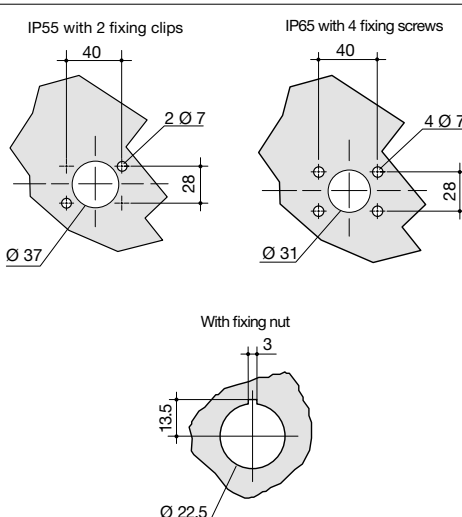
SIRCO M3

Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S0 type Load break switches 		Right side operation  Left side operation 	IP55 with 2 fixing clips  IP65 with 4 fixing screws  With fixing nut 
S01 type Load break switches 			IP65 with 4 fixing screws 

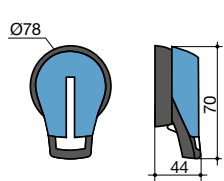
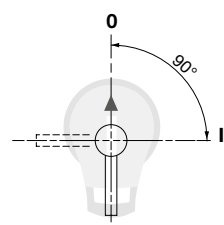
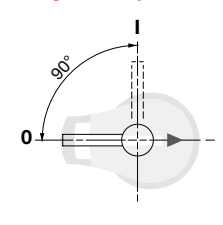
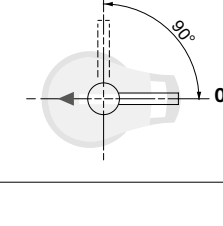
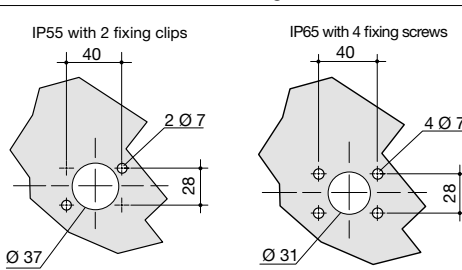
poign_026_a_1_glb_cat

poign_018_a_1_glb_cat

SIRCO MV

Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S0 type Load break switches 		Right side operation  Left side operation 	

poign_026_a_1_gb_cat

Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S1 type Load break switches 		Right side operation  Left side operation 	

poign_027_a_1_gb_cat