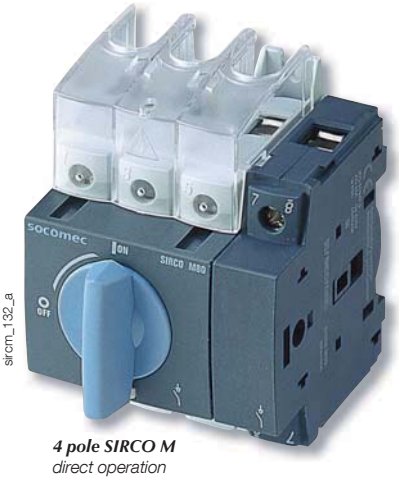


SIRCO M and MV

Universal load break switches
from 16 to 160 A



4 pole SIRCO M
direct operation



4 pole SIRCO MV
direct operation

Function

SIRCO M and **MV** are manually operated 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 SIRCO M to be easily transformed from a load break switch to a changeover switch, offering a highly innovative modular solution for numerous applications.

Wide range of accessories

A single standard 3 pole load break switch 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.
- 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.
- Positive break indication.

The solution for

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



Strong points

> Total integration.
> Wide range of accessories.
> Upgradeability.
> Compliance to 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.

Local safety enclosures

> Fitted within a polycarbonate enclosure, the SIRCO M can be used, for example, for on-load breaking of a motor (AC23).



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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.
- The basic 3 pole device is available enclosed in a polycarbonate enclosure from 16 to 100 A (see page 600).

- From **16 to 125 A**, through the wide range of available accessories, it is possible to convert a **3 pole SIRCO M 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

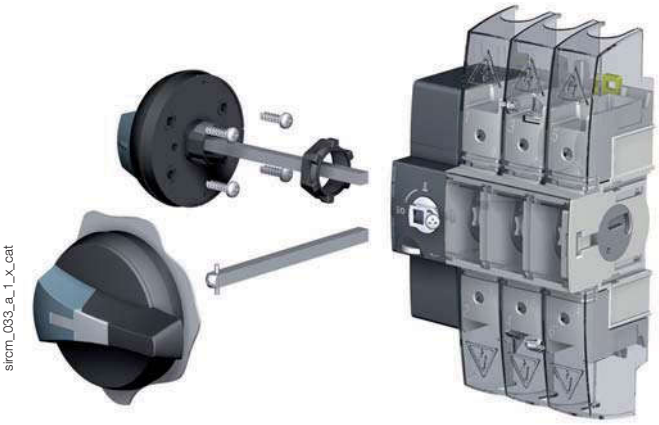
- 3 operations are available:



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

Rating (A)	No. of poles	Complete switch body with toggle operation	Switch body	Direct handle	Door interlocked external front and right side handle[5]	External left side handle[5]	External front handle for changeover switch[5]	Shaft for external front and side handle[5]	4th pole
16 A	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	3 P	2205 **3001**	2200 **3001**[1][2][3]						2200 **1001**
25 A	3 P	2205 **3002**	2200 **3002**[1][2][3]						2200 **1002**
32 A	3 P	2205 **3003**	2200 **3003**[1][2][3]						2200 **1003**
40 A	3 P	2205 **3004**	2200 **3004**[1][2][3]						2200 **1004**
63 A	3 P	2205 **3006**	2200 **3006**[1][2][3]						2200 **1006**
80 A	3 P	2205 **3008**	2200 **3008**[1][2][3]						2200 **1008**
100 A	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**			2200 **1010**
125 A	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) Other handles are available. Please see accessory pages.

SIRCO M

Rating (A)	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	3 P	2205 **3000**	2200 **3000**(1)(2)(3)	1 P 2200 **5005**	1 P 2200 **9005**	M-type contact NO + NC 2299 **0001** 2 NO 2299 **0011**	1 P 2294 **1005**(4) 3 P 2294 **3005**(4)	3/4 P Complete protection IP2X 2299 **3309**(5) Compact design 2209 **3409**(5) 6/8 P Steel support 2299 **3609**(5)
20 A	3 P	2205 **3001**	2200 **3001**(1)(2)(3)					
25 A	3 P	2205 **3002**	2200 **3002**(1)(2)(3)					
32 A	3 P	2205 **3003**	2200 **3003**(1)(2)(3)					
40 A	3 P	2205 **3004**	2200 **3004**(1)(2)(3)					
63 A	3 P	2205 **3006**	2200 **3006**(1)(2)(3)	1 P 2200 **5009**	1 P 2200 **9009**		1 P 2294 **1009**(4) 3 P 2294 **3009**(4)	
80 A	3 P	2205 **3008**	2200 **3008**(1)(2)(3)					
100 A	3 P		2200 **3010**(1)(2)(3)	1 P 2200 **5011**	1 P 2200 **9011**		1 P 2294 **1011**(4) 3 P 2294 **3016**(4)	3/4 P Steel support 2299 **3609**(5)
125 A	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) Top and bottom.
(5) Delivered with a shaft.

References (continued)

SIRCO MV

Rating (A)	No. of poles	Switch body	Direct handle	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**	M0b type Blue 2299 **5042**[1] M0 type Blue 2299 **5022**	S0 type I -0 Black IP55 1491 **0111**[2] Black IP65 1493 **0111**[2] Red/Yellow IP65 1494 **0111**[2]	S0 type I -0 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 contact NO + NC 2299 **0001** 2 NO 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.

Accessories

Direct operation handle

SIRCO M

Rating (A)	Handle colour	Handle	Reference
16 … 80	Blue	M00 type	2299 **5012**(1)
16 … 80	Red	M00 type	2200 **5013**
100 … 125	Blue	M01 type	2200 **5032**(1)

(1) Standard.

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.


M00 handle
acces_347_a


M01 handle
acces_352_a


M0 handle
acces_344_a


M0b handle
acces_359_a

SIRCO M - External operation handle

S000 type handle

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



S000 handle
acces_307_a_1_cat

S00 type handle

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

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


S00 handle
acces_341_a_1_cat

S0 type handle

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


S0 handle
access_343_a

S01 type handle

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


S01 handle
acces_304_a_1_cat

Accessories (continued)

SIRCO MV - External operation handle

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

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	1517 **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

Shaft for external handle

SIRCO M 3/4 P

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

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

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

For SIRCO MV

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



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 are for front operation only.

Shaft guide for external operation

Use

To guide the shaft extension into the external handle.

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

Required for a shaft lengths 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**

4th pole- Additional pole for SIRCO M

Use

Installation of this switched pole converts:

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

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



4th pole | Protective earth module | Neutral pole

Neutral pole

Use

Provides a solid neutral pole for a 3 pole SIRCO M.

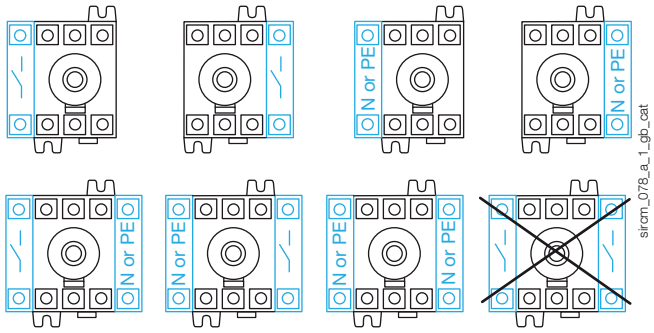
Rating (A)	No. of poles	Type	Reference
16 ... 40	1 P	unswitched	2200 **5005**
63 ... 80	1 P	unswitched	2200 **5009**
100 ... 125	1 P	unswitched	2200 **5011**

Protective earth module

Use

Provides a protective earth pole for a 3/4 pole SIRCO M.

Rating (A)	No. of poles	Type	Reference
16 ... 40	1 P	unswitched	2200 **9005**
63 ... 80	1 P	unswitched	2200 **9009**
100 ... 125	1 P	unswitched	2200 **9011**



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.

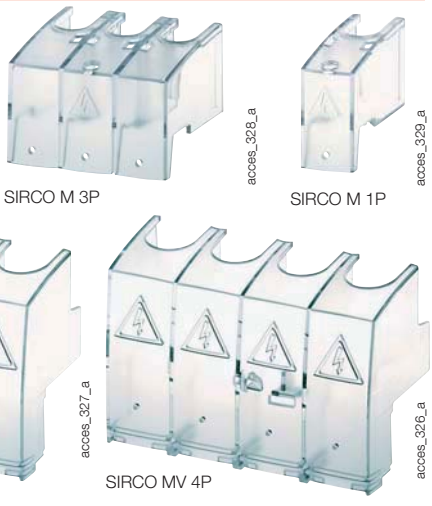
An opening on each terminal cover makes it possible to insert a temperature measurement probe.

For SIRCO M

Rating (A)	No. of poles	Position	Reference
16 ... 40	1 P	top and bottom	2294 **1005**
16 ... 40	3 P	top and bottom	2294 **3005**
63 ... 80	1 P	top and bottom	2294 **1009**
63 ... 80	3 P	top and bottom	2294 **3009**
100 ... 125	1 P	top and bottom	2294 **1011**
100 ... 125	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**



SIRCO M 3P | SIRCO M 1P

SIRCO MV 3P | SIRCO MV 4P

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.

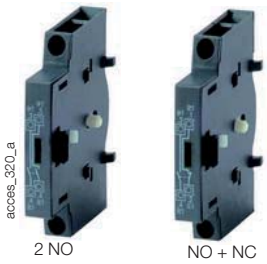
Max 4 auxiliary contacts (2 modules).

Pre-break is not guaranteed on the SIRCO MV.

Characteristics

NO+NC auxiliary contacts: IP2 with front operation.

M type



SIRCO M

Rating (A)	Number of AC	Type of AC	Reference
16 … 125	1 AC	NO + NC	2299 **0001**
16 … 125	1 AC	2 NO	2299 **0011**

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**

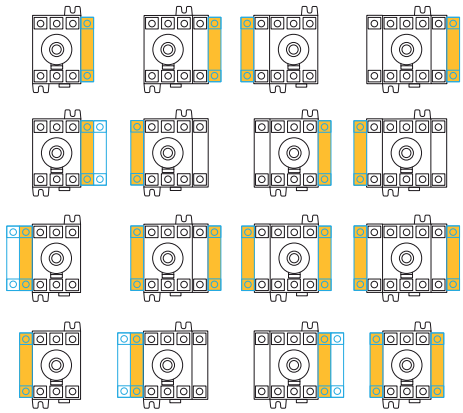
Characteristics

Contact type	Nominal current (A)	Operating current I_e (A) 230 VAC	
		AC-13	AC-15
NO + NC	10	10	6

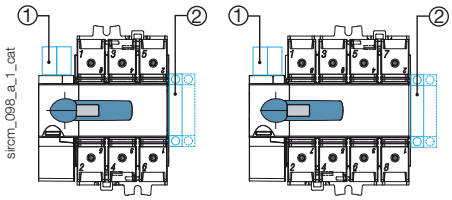
Auxiliary contact configurations for SIRCO M

Max: 2 blocks / Max: 2 AC

Pre-break | No Pre-break



Auxiliary contact configurations for SIRCO MV



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

U type



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

Use

Pre-break and signalisation by NO or NC auxiliary contact.

Maximum 2 auxiliary contacts. Only available for SIRCO MV switches.

Conversion kit

Use

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.

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).

Conversion kits are supplied with a direct front operation handle. For external operation the appropriate handle needs to be ordered.

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

Load break switches 6/8 P

Rating (A)	Type	Reference
16 … 80	6/8P switch	2269 **6009**
100 … 125	6/8P switch	2269 **6011**

Changeover switches I - 0 - II

Rating (A)	Type	Reference
16 … 80	Changeover switches I - 0 - II	2209 **6009**
100 … 125	Changeover switches I - 0 - II	2209 **6011**

Changeover switches I - I+II - II

Rating (A)	Type	Reference
16 … 80	Changeover switches I - I+II - II	2299 **6009**
100 … 125	Changeover switches I - I+II - II	2299 **6011**

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Door mounting kit

Use

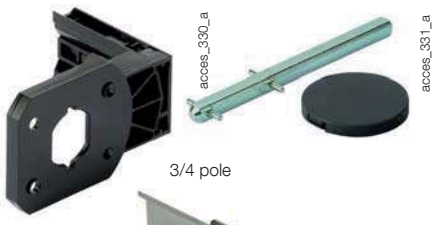
This kit enables the direct mounting of the switch on the panel door, or on the left or right side of the panel.

The connection clamps of the switch are always accessible.

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

3 kits are available:

- one for complete IP2X protection
- one with compact design
- one in steel for 6/8 P and 3/4 P 100/125 A.



3/4 pole



6/8 pole

For SIRCO M			
Rating (A)	**No. of poles**	**Description**	**Reference**
16 … 80	3/4 P	Complete IP2X protection	2299 **3309**
16 … 80	3/4 P	Compact version	2299 **3409**
16 … 80	6/8 P	Steel support	2299 **3609**
100 ... 125	3/4 P	Steel 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.



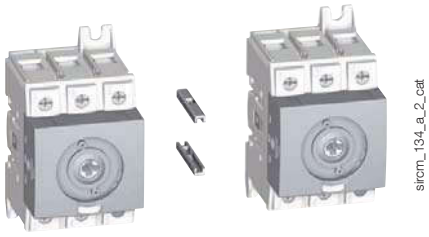
For SIRCO M		
Rating (A)	**Pack**	**Reference**
16 … 125	20 pieces	2299 **9409**

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)	**Pack**	**Reference**
16 … 80	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

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 according to IEC 60947-3

SIRCO M - 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**
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
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 short-circuit making capacity without fuses I_{cm} (kA peak)		1.8	1.8	1.8	1.8	1.8	2.1	2.1	3.9	3.9
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 Ue = 415 VAC

Characteristics according to IEC 60947-3

SIRCO MV - 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
Short-circuit capacity (without protection)				
Rated short-time withstand current 1s. I_{cw} (kA rms)		4	4	4
Rated short-circuit making capacity without fuses I_{cm} (kA peak)		7	7	7
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

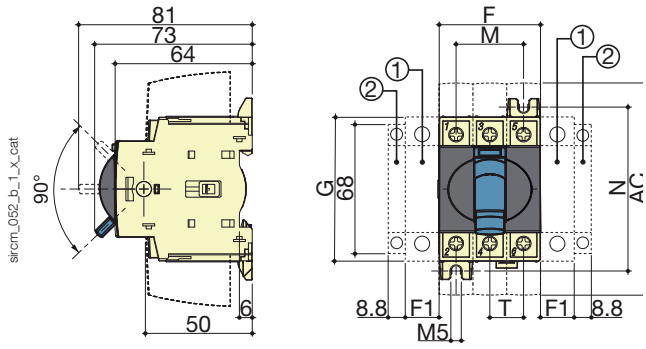
(1) Category with index A = frequent operation - Category with index B = infrequent operation.
(2) One pole per polarity.
(3) 2 poles in series for the "+" and 1 pole for the "-".
(4) 2 poles in series per polarity.
(5) The power value is given for information only, the current values vary from one manufacturer to another.
(6) For a rated operational voltage U_e = 415 VAC.

Dimensions

SIRCO M

SIRCO M 16 to 80 A

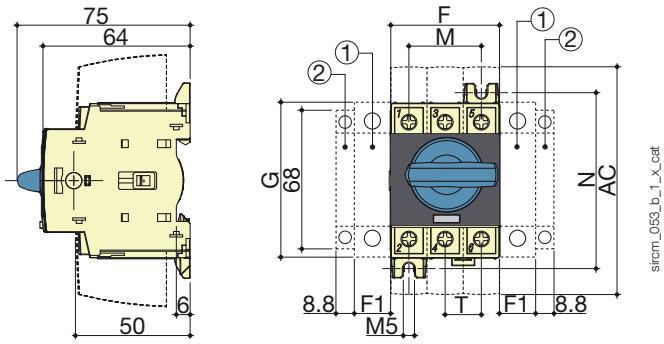
Toggle operation



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.

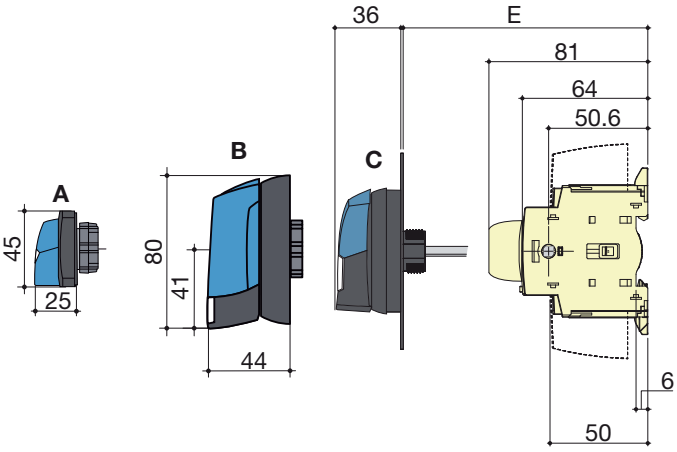
Direct operation with handle



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.

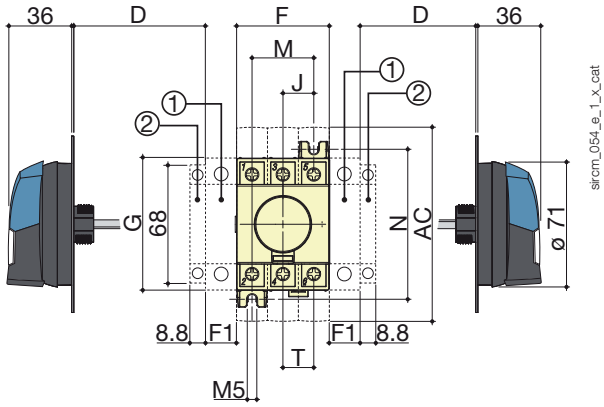
External front operation



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 only.

Note: max 2 additional blocks.

External side operation



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

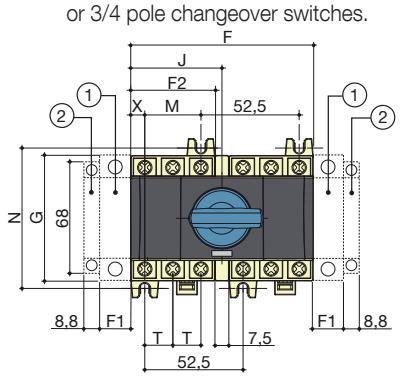
Rating (A)	Overall dimensions				Terminal shrouds	Switch body				Switch mounting		Connection
	D min	D max	E min	E max	AC	F	F1	G	J	M	N	T
16…40	30	235	100	372	110	45	15	68	15	30	75	15
63…80	30	235	100	372	110	52.5	17.5	76	17.5	35	85	17.5

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SIRCO M

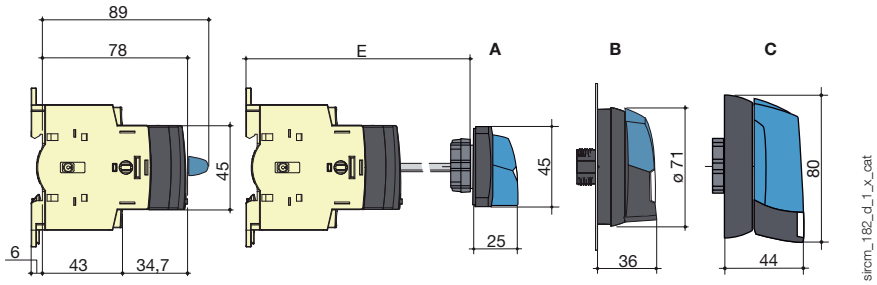
SIRCO M 16 to 80 A (continued)

Direct 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.

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



2. Position for 1 auxiliary contact module only.
Note: max 2 additional blocks.

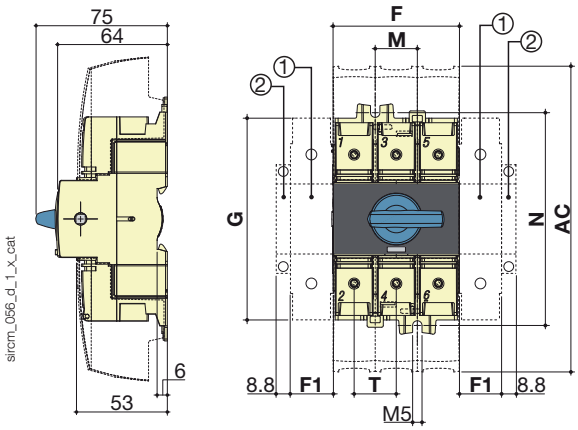
A. S000 Handle.
B. S00 Handle.
C. S01 Handle.

sircm_182_d_1_x_cat

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

SIRCO M 100 to 125 A

Direct operation with handle

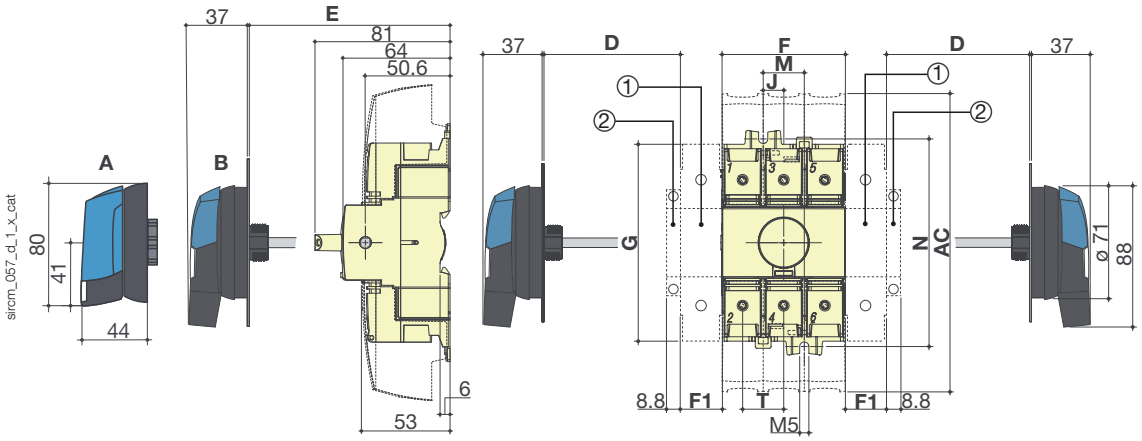


sircm_056_d_1_x_cat

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

External side operation



sircm_057_d_1_x_cat

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.

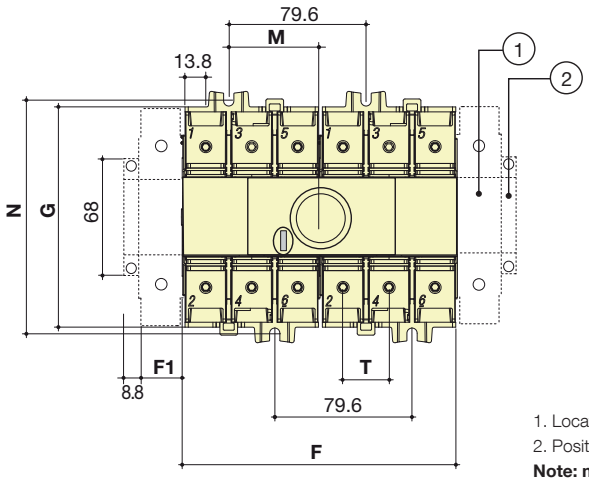
A. S01 Handle.
B. S0 Handle.

Rating (A)	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	30	201	100	372	189	78	26	124.6	13	26	131.4	26

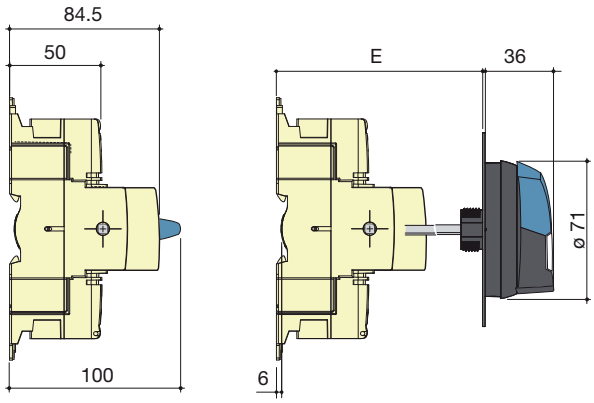
Dimensions (continued)

SIRCO M 100 to 125 A 6/8 P and 3/4 P changeover switch

Direct front operation for 3/4 pole changeover switches



External front operation for 3 and 4 pole changeover switches



1. Location for: 1 main pole **or** 1 auxiliary contact (See accessories page 33 and 34).
2. Position for 1 auxiliary contact module only

Note: max 2 additional blocks.

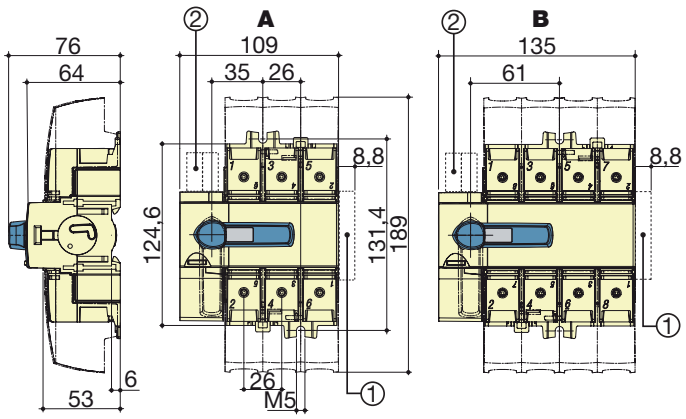
sircm_183_e_1_x_cat

Rating (A)	Overall dimensions		Switch body			Switch mounting		Connection
	E min	E max	F	F1	G	M	N	T
100 … 125	105	372	159	26	124.5	52.8	131.5	26

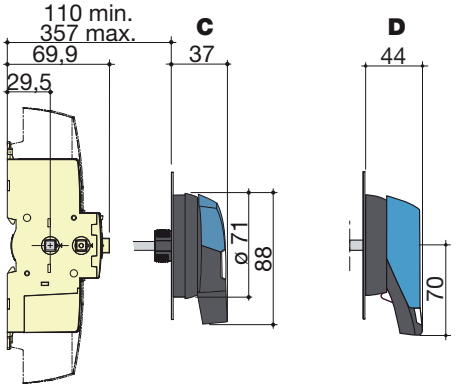
SIRCO MV

SIRCO MV - 100 to 160 A

Direct front operation



External front operation



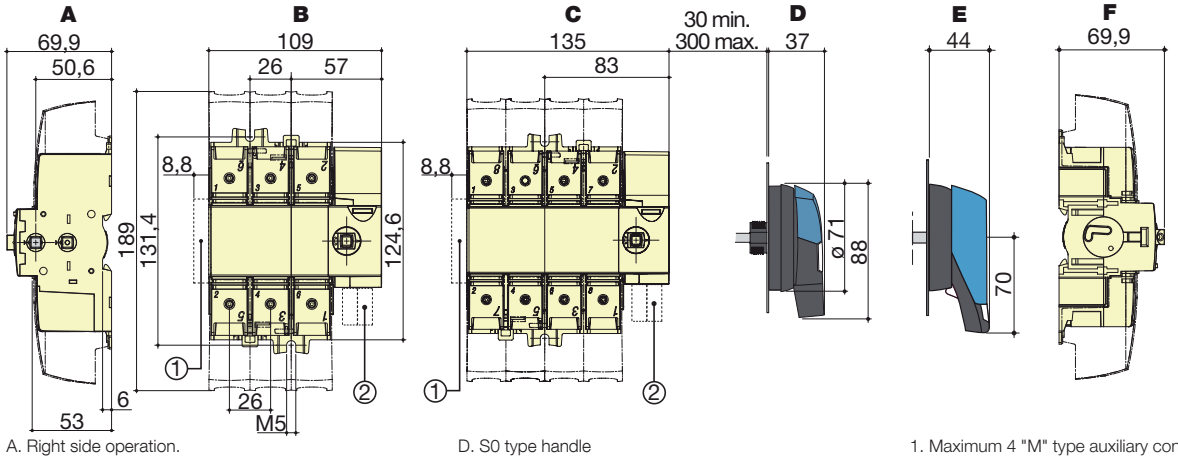
A. 3 poles
B. 4 poles

C. S0 type handle
D. S1 type handle

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

sircm_058_c_1_x_cat

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

sircm_059_d_1_x_cat

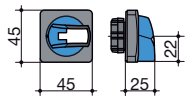
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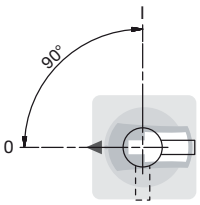
Dimensions for external handles

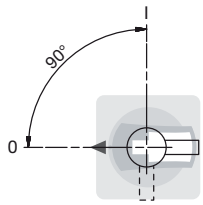
SIRCO M

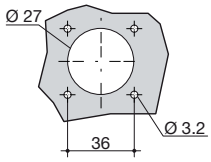
16 to 80 A

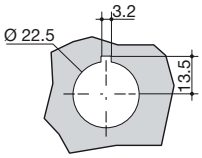
Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S000 type Load break switches		**Right side operation**	With 4 fixing screws / With fixing nut





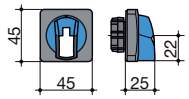


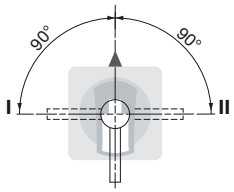


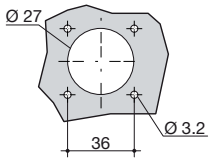


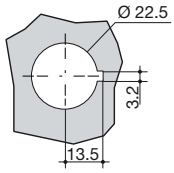
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Handle type	Front operation Direction of operation	Door drilling
S000 type Changeover switches I-0-II and I - I+II - II	**0** or **I+II**	With 4 fixing screws / With fixing nut



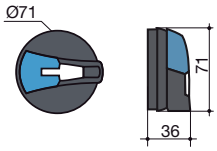


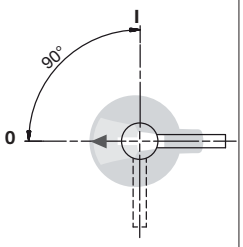


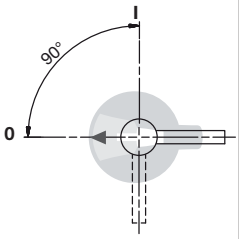


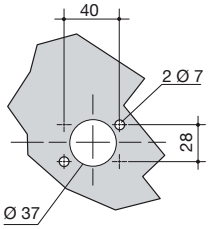
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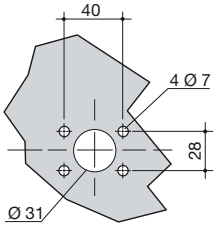
Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S00 type Load break switches		**Right side operation**	IP55 with 2 fixing clips / IP65 with 4 fixing screws



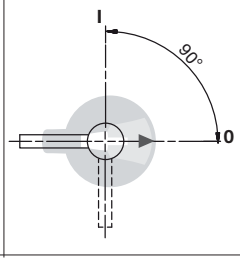




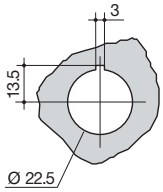




Left side operation

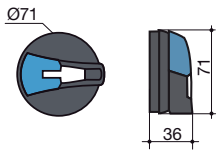


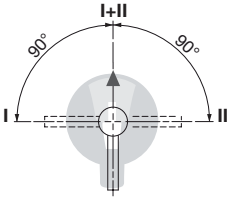
With fixing nut

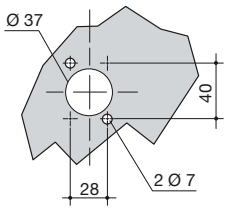


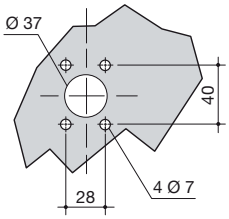
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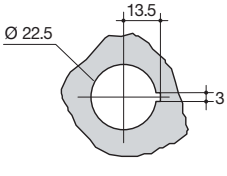
Handle type	Front operation Direction of operation	Door drilling
S00 type Changeover switches I-0-II and I - I+II - II	**0** or **I+II**	IP55 with 2 fixing clips / IP65 with 4 fixing screws / With fixing nut









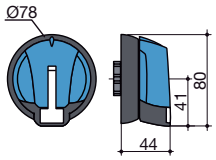
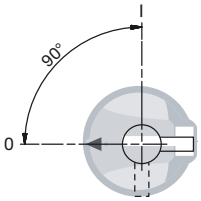
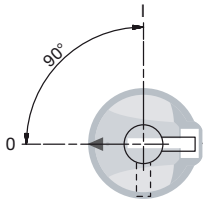
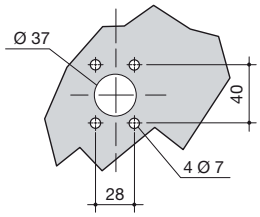


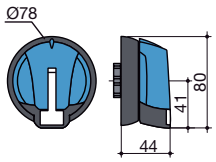
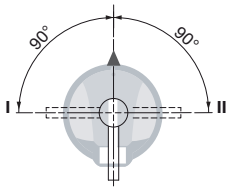
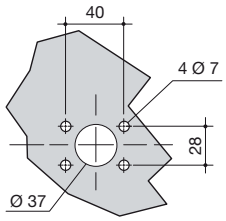
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Dimensions for external handles

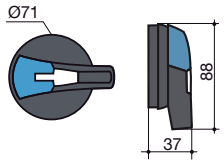
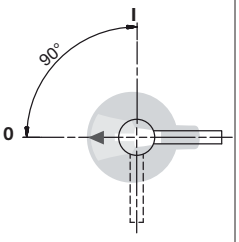
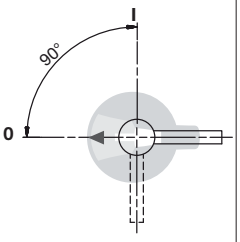
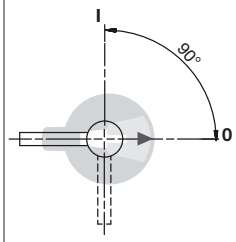
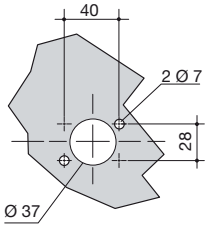
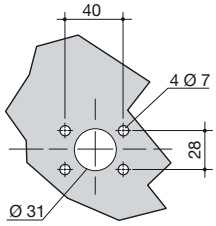
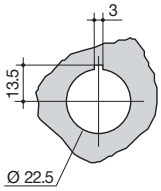
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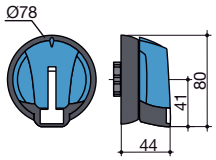
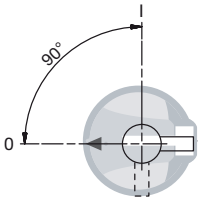
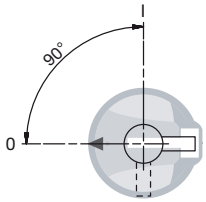
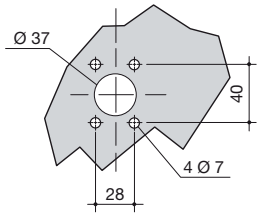
16 to 80 A 3/4 P and 16 to 40 A 6/8 P

Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S01 type Load break switches 		**Right side operation** 	IP65 with 4 fixing screws 

Handle type	Front operation Direction of operation	Door drilling
S01 type Changeover switches I-0-II and I - I+II - II 	0 or I+II 	IP65 with 4 fixing screws 

100 to 125 A

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 

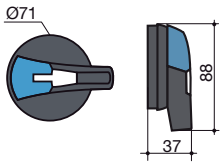
Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S01 type Load break switches 		**Right side operation** 	IP65 with 4 fixing screws 

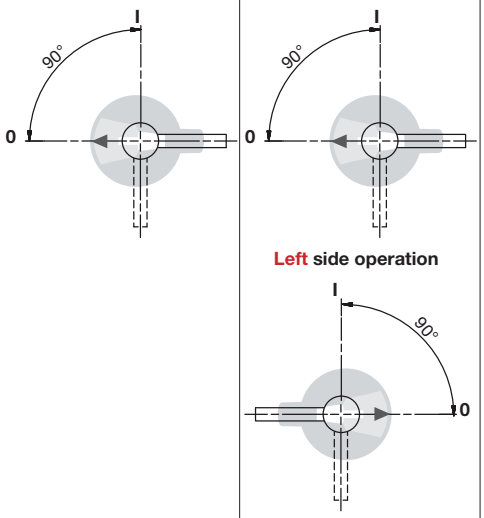
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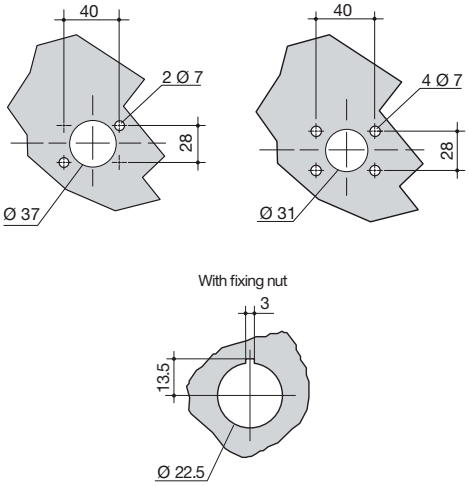
SIRCO MV

100 to 160 A

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

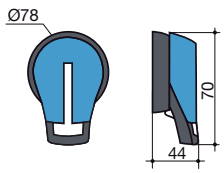


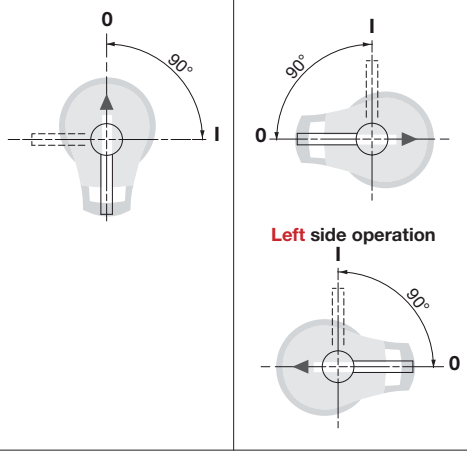


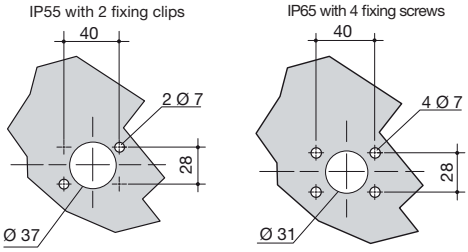


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Handle type	Front operation Direction of operation	Side operation Direction of operation	Door drilling
S1 type Load break switches		**Right side operation** **Left side operation**	IP55 with 2 fixing clips IP65 with 4 fixing screws







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