

Compact Guide Cylinder

MGP Series

ø12, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order

MGP M 25 - 30 Z - M9BW

Compact Guide Cylinder

• Made to Order
For details, refer to page 537.

Bearing type

M	Slide bearing
L	Ball bushing
A	High precision ball bushing

Bore size

12	12 mm	40	40 mm
16	16 mm	50	50 mm
20	20 mm	63	63 mm
25	25 mm	80	80 mm
32	32 mm	100	100 mm

Port thread type

Nil	M5 x 0.8
TN	Rc
TF	NPT
	G

*: For bore sizes ø12 and ø16, only M5 x 0.8 is available.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	n pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
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*: For applicable auto switches, refer to the table below.

Cylinder stroke [mm]

Refer to Standard Strokes on page 537.

Proposals for Improving Water and Dust-resistance

SMC offers a wide range of models suitable for various operating environments. This includes models that can be used in environments that the basic model cannot, such as those where coolant liquid, water droplets/splashing, dust, etc., are present. See below for details.

- Water resistant cylinder (➡ Refer to page 540.)
- Cylinder with stable lubrication function (Lube-retainer) (➡ Refer to page 541.)
- Dust resistant cylinder (➡ Web Catalog)

Applicable Auto Switches/Refer to pages 1289 to 1383 for further information on auto switches.

Applicable Auto Switches																
Refer to pages 1203 to 1206 for further information on auto switches.																
Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]					Pre-wired connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC	
	3-wire (PNP)			M9PV			M9P	●	●	●	○	○				
	2-wire			12 V	M9BV		M9B	●	●	●	○	○	—			
	3-wire (NPN)			5 V, 12 V	M9NVV		M9NW	●	●	●	○	○	IC circuit			
	3-wire (PNP)				M9PWV		M9PW	●	●	●	○	○				
	2-wire			12 V	M9BWW		M9BW	●	●	●	○	○				
	3-wire (NPN)			5 V, 12 V	M9NAV ^{*1}		M9NA ^{*1}	○	○	●	○	○	IC circuit			
	3-wire (PNP)				M9PAV ^{*1}		M9PA ^{*1}	○	○	●	○	○				
	2-wire			12 V	M9BAV ^{*1}		M9BA ^{*1}	○	○	●	○	○				
	Magnetic field resistant (2-color indicator)			2-wire (Non-polar)	—		—	P3DWA ^{*2}	●	—	●	○	○	—		
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	A96V	A96	●	—	●	—	—	IC circuit	—	
				No	2-wire	24 V	12 V	100 V	A93V ^{*3}	A93	●	●	●	—	—	Relay, PLC
									100 V or less	A90V	A90	●	—	●	—	

*1: Water resistant type auto switches are mountable on the above models, but in such case SMC cannot guarantee water resistance.

A water resistant type cylinder is recommended for use in an environment which requires water resistance.

However, please contact SMC for water resistant products of ø12 and ø16.

*2: The D-P3DWA□ is mountable on bore size ø25 to ø100.

*3: 1 m type lead wire is only applicable to the D-A93.

*: Lead wire length symbols: 0.5 m.....Nil (Example) M9NW
1 m.....M (Example) M9NWM
3 m.....L (Example) M9NWL
5 m.....Z (Example) M9NWWZ

*: Solid state auto switches marked with "○" are produced upon receipt of order.

*: Other than the auto switches listed above, the D-P4DW type can be mounted. Refer to page 595 for details.

*: For details about auto switches with pre-wired connector, refer to pages 1358 and 1359.

*: Auto switches are shipped together, (but not assembled).

Compact Guide Cylinder With Air Cushion

MGP Series

ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order

MGP M 32 - 50 AZ - M9BW -

Compact Guide Cylinder

Bearing type

M	Slide bearing
L	Ball bushing
A	High precision ball bushing

Bore size

16	16 mm	50	50 mm
20	20 mm	63	63 mm
25	25 mm	80	80 mm
32	32 mm	100	100 mm
40	40 mm		

Port thread type

Nil	M5 x 0.8
	Rc
TN	NPT
TF	G

*: For bore size 16, only M5 x 0.8 is available.

Made to Order

For details, refer to page 559.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	n pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
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*: For applicable auto switches, refer to the table below.

With air cushion

Cylinder stroke [mm]

Refer to Standard Strokes on page 559.

Applicable Auto Switches Refer to pages 1289 to 1383 for further information on auto switches.

Type	Special function	Electrical entry	Indication light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]					Pre-wired connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	Relay, PLC	
	Diagnostic indication (2-color indicator)			3-wire (PNP)				M9PV	M9P	●	●	●	○	○		
				2-wire				M9BV	M9B	●	●	●	○	○		
				3-wire (NPN)				M9NVW	M9NW	●	●	●	○	○		
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	○		
	Water resistant (2-color indicator)			2-wire				M9BWV	M9BW	●	●	●	○	○		
				3-wire (NPN)				M9NAV ^{*1}	M9NA ^{*1}	○	○	○	○	○		
				3-wire (PNP)				M9PAV ^{*1}	M9PA ^{*1}	○	○	○	○	○		
				2-wire				M9BAV ^{*1}	M9BA ^{*1}	○	○	○	○	○		
	Magnetic field resistant (2-color indicator)			2-wire (Non-polar)				—	P3DWA ^{*2}	●	—	●	○	○		
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—
			No	2-wire	24 V	12 V	100 V 100 V or less	A93V ^{*3}	A93	●	●	●	—	—	—	IC circuit
								A90V	A90	●	●	●	—	—	—	

*1: Water resistant type auto switches are mountable on the above models, but in such case SMC cannot guarantee water resistance.

A water resistant type cylinder is recommended for use in an environment which requires water resistance.

However, please contact SMC for water resistant products of ø12 and ø16.

*2: The D-P3DWA is mountable on bore size ø25 to ø100.

*3: 1 m type lead wire is only applicable to the D-A93.

*: Lead wire length symbols: 0.5 m.....Nil (Example) M9NW
1 m.....M (Example) M9NWM
3 m.....L (Example) M9NWL
5 m.....Z (Example) M9NWL

*: Solid state auto switches marked with "○" are produced upon receipt of order.

*: Other than the auto switches listed above, the D-P4DW type can be mounted. Refer to page 595 for details.

*: For details about auto switches with pre-wired connector, refer to pages 1358 and 1359.

*: Auto switches are shipped together, (but not assembled).

Compact Guide Cylinder/With End Lock

MGP Series

ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

How to Order

MGP M 32 - 100 - H N - M9BW

Compact Guide Cylinder

Bearing type

M	Slide bearing
L	Ball bushing
A	High precision ball bushing

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

Port thread type

Nil	Rc
N	NPT
TF	G

Cylinder stroke [mm]

Refer to Standard Strokes on page 576.

Auto switch

Nil	Without auto switch (Built-in magnet)
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*: For applicable auto switches, refer to the table below.

Manual release type

N	Non-lock type
L	Lock type

Lock position

H	Head end lock
R	Rod end lock

Made to Order
For details, refer to page 576.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	n pcs.

Applicable Auto Switches

Refer to pages 1289 to 1383 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load	
					DC	AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
Solid state auto switch	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)			M9PV	M9P	●	●	●	○	○		
				2-wire			M9BV	M9B	●	●	●	○	○		
				3-wire (NPN)			M9NVW	M9NW	●	●	●	○	○		
	Water resistant (2-color indicator)	Grommet	Yes	3-wire (PNP)	24 V	—	M9PWV	M9PW	●	●	●	○	○	IC circuit	Relay, PLC
				2-wire			M9BWV	M9BW	●	●	●	○	○		
	Magnetic field resistant (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	—	M9NAV ^{*1}	M9NA ^{*1}	○	○	●	○	○	—	—
				3-wire (PNP)			M9PAV ^{*1}	M9PA ^{*1}	○	○	●	○	○		
				2-wire			M9BAV ^{*1}	M9BA ^{*1}	○	○	●	○	○		
				2-wire (Non-polar)			—	P3DWA	●	—	●	○	○		
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	12 V	A96V	A96	●	—	●	—	—	IC circuit	Relay, PLC
				2-wire			A93V ^{*2}	A93	●	●	●	—	—		
			No				A90V	A90	●	—	●	—	—	IC circuit	

*1: Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Please consult with SMC regarding water resistant types with the above model numbers.

*2: 1 m type lead wire is only applicable to the D-A93.

*: Lead wire length symbols: 0.5 m.....Nil
1 m.....M
3 m.....L
5 m.....Z

(Example) M9NW
(Example) M9NWM
(Example) M9NWL
(Example) M9NWZ

*: Solid state auto switches marked with "○" are produced upon receipt of order.
*: Bore sizes 32 to 100 are available for D-P4DW□.
*: Bore sizes 25 to 100 are available for D-P3DWA□.

*: Since there are other applicable auto switches than listed above, refer to page 595 for details.

*: For details about auto switches with pre-wired connector, refer to pages 1358 and 1359.

*: Auto switches are shipped together, (but not assembled).