

Square Tube Type Air Cylinder: Standard Type Double Acting, Single Rod

MB1 Series

RoHS

ø32, ø40, ø50, ø63, ø80, ø100, ø125

How to Order

MB1 B 32 - 50 Z -

With auto switch MDB1 B 32 - 50 Z - M9BW -

With auto switch (Built-in magnet)

Mounting type

B	Basic
L	Axial foot
F	Rod flange
G	Head flange
C	Single clevis
D	Double clevis

* Mounting bracket is shipped together with the product, but not assembled (except ø125).

Bore size

32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm
125	125 mm

Port thread type

Nil	Rc
TN	NPT
TF	G

Cylinder stroke [mm]

Refer to "Standard Strokes" on page 441.

Suffix (Rod boot)

Nil	None
J	Nylon tarpaulin
K	Heat resistant tarpaulin

* Refer to "Ordering Example of Cylinder Assembly" on page 441.

Suffix (Cushion)

Nil	Air cushion
N*	Rubber bumper

* Since the bumpers are attached to the both sides of the piston for rubber bumper type, the overall length is longer than the cylinder with air cushion as follows: ø32, ø40: +6 mm, ø50, ø63: +8 mm, ø80, ø100: +10 mm, ø125: +12 mm.

Made to Order

For details, refer to page 441.

Number of auto switches

Nil	2 pcs.
S	1 pc.
3	3 pcs.
n	"n" pcs.

Auto switch

Nil	Without auto switch
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* For applicable auto switches, refer to the table below.

Accessories 2

Nil	No bracket
V	Single knuckle joint
W	Double knuckle joint

* A knuckle joint pin is not provided with the single knuckle joint.
* Rod end bracket is shipped together with the product.

Accessories 1

Nil	No bracket
N	Pivot bracket

* Only for D mounting type.
* Pivot bracket is shipped together with the product.
* For details, refer to page 448.

Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch. (Example) MDB1B40-100Z

Applicable Auto Switches/Refer to pages 1575 to 1701 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)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	Relay, PLC	
				3-wire (PNP)				M9PV	M9P	●	●	○	○		
				2-wire				M9BV	M9B	●	●	○	○		
	3-wire (NPN)			M9NVW	M9NW	●	●	○	○						
	3-wire (PNP)			M9PVW	M9PW	●	●	○	○						
	2-wire			M9BVW	M9BW	●	●	○	○						
Diagnostic indication (2-color indicator)	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NAV ^{*1}	M9NA ^{*1}	○	○	●	○	IC circuit	
				3-wire (PNP)				M9PAV ^{*1}	M9PA ^{*1}	○	○	●	○		
				2-wire				M9BAV ^{*1}	M9BA ^{*1}	○	○	○	○		
Water resistant (2-color indicator)	—	Grommet	No	3-wire (NPN equivalent)	24 V	12 V	100 V or less	A96V	A96	●	—	●	—	IC circuit	
				2-wire				A93V ^{*2}	A93	●	●	●	—		Relay, PLC
				—				A90V	A90	●	—	●	—		

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

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

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

* Lead wire length symbols: 0.5 m Nil (Example) M9NV
1 m M (Example) M9NWM
3 m L (Example) M9NLW
5 m Z (Example) M9NZW

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

* Since there are other applicable auto switches than listed above, refer to page 461 for details.

* For details about auto switches with pre-wired connector, refer to pages 1648 and 1649.

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