Compact Guide Cylinder/Wide Type

Series MGPW

ø20, ø25, ø32, ø40, ø50, ø63

How to Order

Compact Guide Cylinder **MGP W M 25 □ – 50 – M9BW □**

Compact Guide Cylinder

Wide type

Bearing type

M	Slide bearing
L	Ball bushing
A	High precision ball bushing

Bore size

20	20 mm	**40**	40 mm
25	25 mm	**50**	50 mm
32	32 mm	**63**	63 mm

Port thread type

Nil	Rc
TN	NPT
TF	G

Cylinder stroke (mm)
Refer to "Standard Strokes" on page 3.

Auto switch

Nil	Without auto switch (Built-in magnet)

∗ For applicable auto switch model, refer to the table below.

Number of auto switches

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

Applicable Auto Switches/Refer to pages 1719 to 1827 in Best Pneumatics No. 3 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC		Load voltage AC	Auto switch model Perpendicular	Auto switch model In-line	Lead wire length (m) 0.5 (Nil)	1 (M)	3 (L)	5 (Z)	Pre-wired connector	Applicable load	
Solid state auto switch	–	Grommet	Yes	3-wire (NPN)	24 V	5 V,12 V	–	**M9NV**	**M9N**	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				**M9PV**	**M9P**	●	●	●	○	○		
				2-wire		12 V		**M9BV**	**M9B**	●	●	●	○	○	–	
	Diagnostic indication (2-color display)			3-wire (NPN)		5 V,12 V		**M9NWV**	**M9NW**	●	●	●	○	○	IC circuit	
				3-wire (PNP)				**M9PWV**	**M9PW**	●	●	●	○	○		
				2-wire		12 V		**M9BWV**	**M9BW**	●	●	●	○	○	–	
	Water-resistant (2-color display)			3-wire (NPN)		5 V,12 V		**M9NAV**∗∗∗	**M9NA**∗∗∗	○	○	●	○	○	IC circuit	
				3-wire (PNP)				**M9PAV**∗∗∗	**M9PA**∗∗∗	○	○	●	○	○		
				2-wire		12 V		**M9BAV**∗∗∗	**M9BA**∗∗∗	○	○	●	○	○	–	
	Magnetic field resistant (2-color display)			2-wire (Non-polar)		–		–	**P3DW**∗∗	●	–	●	●	○		
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**	**A93**	●	–	●	●	–	–	Relay, PLC
							100 V or less	**A90V**	**A90**	●	–	●	–	–	IC circuit	

∗∗∗ Water-resistant type auto switch can be mounted to the models with the above mentioned part numbers, but this does not guarantee the water resistance of the cylinder. A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

∗ Lead wire length symbols: 0.5 m ..... Nil (Example) M9NW
1 m ..... M (Example) M9NWM
3 m ..... L (Example) M9NWL
5 m ..... Z (Example) M9NWZ

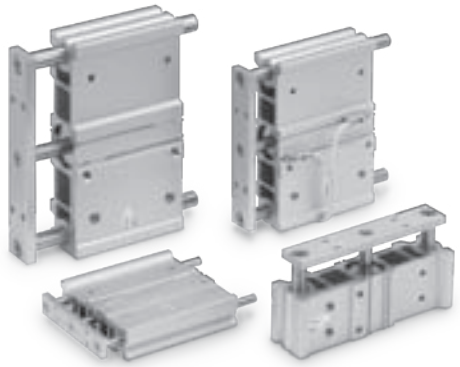
∗ Solid state auto switches marked with "○" are produced upon receipt of order.

∗∗ Bore sizes ø32 to ø63 are available for the D-P3DW.

∗ Since there are other applicable auto switches than listed, refer to page 19 for details.

∗ For details about auto switches with pre-wired connector, refer to pages 1784 and 1785 in Best Pneumatics No. 3. For the D-P3DW□, refer to the catalog CAT. ES20-201.

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



Specifications

Bore size (mm)	20	25	32	40	50	63
Action	Double acting					
Fluid	Air					
Proof pressure	1.5 MPa					
Maximum operating pressure	1.0 MPa					
Minimum operating pressure	0.1 MPa					
Ambient and fluid temperature	–10 to 60°C (No freezing)					
Piston speed Note)	50 to 500 mm/s					
Cushion	Rubber bumper on both ends					
Lubrication	Not required (Non-lube)					
Stroke length tolerance	$^{+1.5}_{0}$ mm					

Note) Speed with no load

Standard Strokes

Bore size (mm)	Standard stroke (mm)
20 to 63	25, 50, 75, 100, 125, 150, 175, 200

Manufacture of Intermediate Strokes

Description	Spacer installation Spacers are installed in the standard stroke cylinder. • ø20 to ø32: Available by the 1 mm stroke interval. • ø40 to ø63: Available by the 5 mm stroke interval.	
Part no.	Refer to “How to Order” for the standard model numbers.	
Applicable stroke (mm)	ø20 to ø32	1 to 199
	ø40 to ø63	5 to 195
Example	Part no.:MGPWM20-49 A spacer 1 mm in width is installed in a MGPWM20-50. C dimension (Body length): 84 mm	

Refer to pages 18 to 20 for cylinders with auto switches.

· Auto switch proper mounting position (detection at stroke end) and its mounting height
· Minimum stroke for auto switch mounting
· Auto switch mounting brackets/Part no.

Theoretical Output

OUT IN

(N)

Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm^2)	Operating pressure (MPa)								
				0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
20	10	OUT	314	63	94	126	157	188	220	251	283	314
		IN	236	47	71	94	118	141	165	188	212	236
25	10	OUT	491	98	147	196	245	295	344	393	442	491
		IN	412	82	124	165	206	247	289	330	371	412
32	14	OUT	804	161	241	322	402	483	563	643	724	804
		IN	650	130	195	260	325	390	455	520	585	650
40	14	OUT	1257	251	377	503	628	754	880	1005	1131	1257
		IN	1103	221	331	441	551	662	772	882	992	1103
50	18	OUT	1963	393	589	785	982	1178	1374	1571	1767	1963
		IN	1709	342	513	684	855	1025	1196	1367	1538	1709
63	18	OUT	3117	623	935	1247	1559	1870	2182	2494	2806	3117
		IN	2863	573	859	1145	1431	1718	2004	2290	2576	2863

Note) Theoretical output (N) = Pressure (MPa) x Piston area (mm^2)

Made to Order

Made to Order
(For details, refer to pages 22 and 23.)

Symbol	Description
-XC56	With knock pin holes
-X867	Side porting type