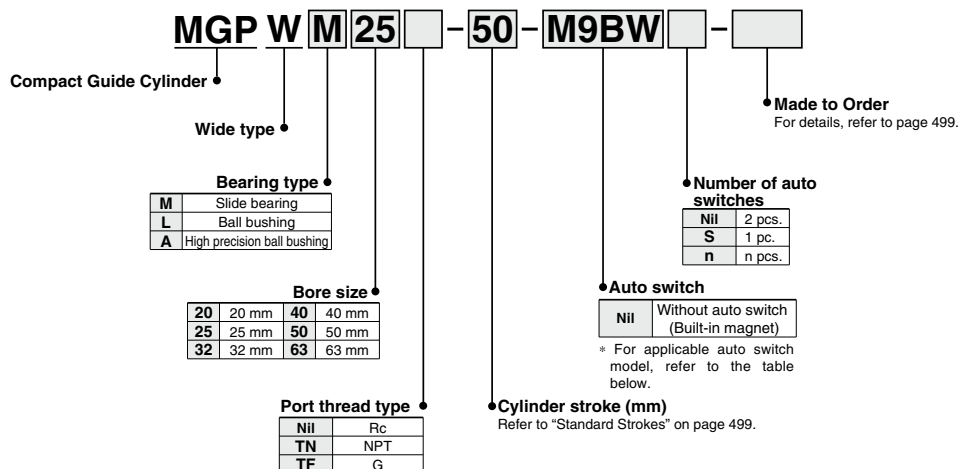


Compact Guide Cylinder/Wide Type

MGPW Series

ø20, ø25, ø32, ø40, ø50, ø63

How to Order



Applicable Auto Switches/Refer to pages 1119 to 1245 for further information on auto switches.

Applicable Auto Switches																		
Page 773 to 726 for further information. Please refer to the applicable 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	●	●	●	○	○	IC circuit			
	Diagnostic indication (2-color indicator)			3-wire (PNP)				M9PV	M9P	●	●	●	○	○		IC circuit		
				2-wire				M9BV	M9B	●	●	●	○	○			—	
				3-wire (NPN)				M9NVV	M9NW	●	●	●	○	○				IC circuit
				3-wire (PNP)	M9PVV	M9PV	●	●	●	○	○	—						
				2-wire	M9BVV	M9BV	●	●	●	○	○		—					
				Water-resistant (2-color indicator)	3-wire (NPN)	M9NAV*1	M9NA*1	○	○	○	○	○		IC circuit				
	3-wire (PNP)				M9PAV*1	M9PA*1	○	○	●	○	○	—						
	2-wire				M9BAV*1	M9BA*1	○	○	○	○	○		—					
	Magnetic field resistant (2-color indicator)				2-wire (Non-polar)	—	P3DWA**	●	—	●	○	○			—			
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—		IC circuit	—	
	No			2-wire	24 V	12 V	100 V or less	A93V*2	A93	●	●	●	—	—	IC circuit			Relay, PLC
								A90V	A90	●	—	●	—	—				
								—	—	—	—	—	—	—				

*1 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.

*2 1 m type lead wire is only applicable to 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) M9NWLZ

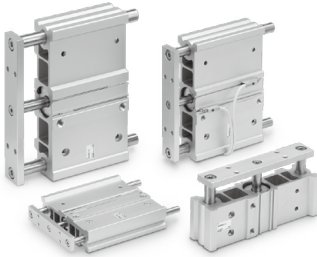
* Solid state auto switches marked with "○" are produced upon receipt of order.

** Bore sizes ø32 to ø63 are available for the D-P3DWA□.

* Since there are other applicable auto switches than listed, refer to page 515 for details.

* For details about auto switches with pre-wired connector, refer to pages 1192 and 1193.

* 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

Refer to pages 514 to 516 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.

Description	Spacer installation Spacers are installed in the standard stroke cylinder. • ø20 to ø32: Available in 1 mm stroke increments. • ø40 to ø63: Available in 5 mm stroke increments.	
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	



Made to Order: Individual Specifications
(For details, refer to page 517.)

Symbol	Description
-X867	Side porting type

Made to Order
(For details, refer to pages 1247 to 1440.)

Symbol	Description
-XC56	With knock pin holes

Theoretical Output



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 (mm²)

MGJ

JMGP

MGP

MGPW

MGQ

MGG

MGC

MGF

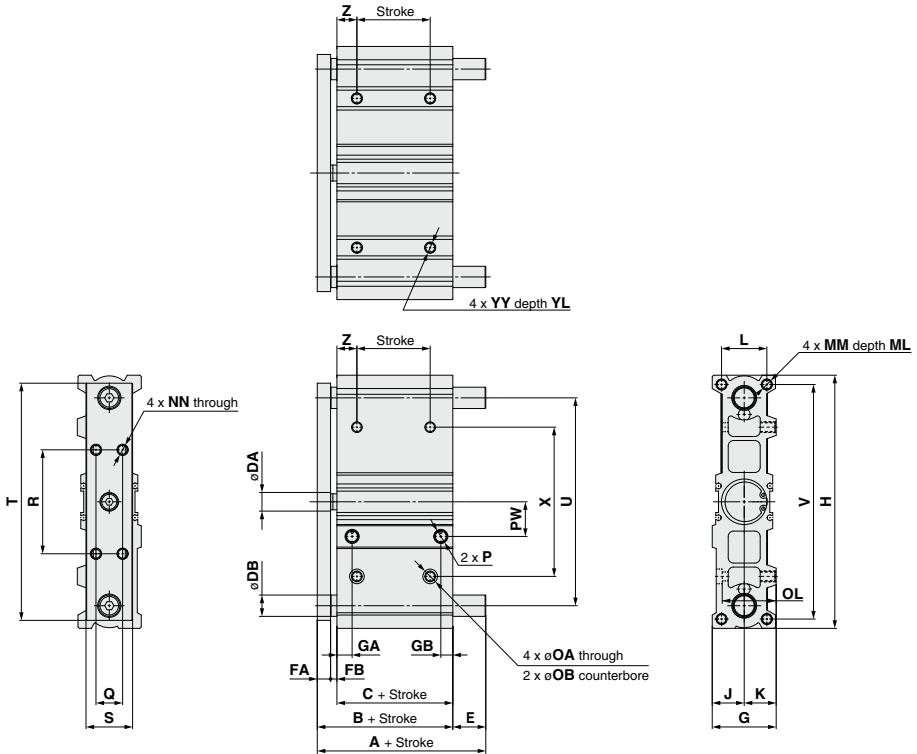
MGZ

MGT

D-□

-X□

ø20 to ø63/MGPWM



* For intermediate strokes other than standard strokes, refer to "Manufacture of Intermediate Strokes" on page 499.

MGPWM Common Dimensions

(mm)

Bore size (mm)	Standard stroke (mm)	A										E										
		50 at or less		Over 50 stroke		B	C	DA	DB	50 at or less		Over 50 stroke		FA	FB	G	GA	GB	H	J	K	L
20	25, 50, 75, 100, 125, 150, 175, 200	62	92	44.5	34	10	10	17.5	47.5	7.5	3	36	9.9	7.5	137	18	18	24				
25		63.5	113.5	47	35	10	12	16.5	66.5	9	3	42	10.3	8.7	157	21	21	30				
32		76.5	116.5	52	37	14	16	24.5	64.5	10	5	48	11.4	9	190	24	24	34				
40		76.5	116.5	56	41	14	16	20.5	60.5	10	5	54	13.5	10.5	206	27	27	40				
50		85	135	60.5	42	18	20	24.5	74.5	12.5	6	64	14	11.1	258	32	32	46				
63		85	135	67.5	49	18	20	17.5	67.5	12.5	6	78	15.5	13.5	286	39	39	58				

Bore size (mm)	MM	ML	NN	OA	OB	OL	P			PW	Q	R	S	T	U	V	X	YY	YL	Z
							Nil	TN	TF											
20	M5 x 0.8	13	M5 x 0.8	5.4	9.5	30.5	Rc1/8	NPT1/8	G1/8	17	14	64	24	123	108	126	76	M6 x 1	9	20
25	M6 x 1	15	M6 x 1	5.4	9.5	36.5	Rc1/8	NPT1/8	G1/8	18	16	68	26	146	128	146	92	M6 x 1	9	20
32	M8 x 1.25	20	M8 x 1.25	6.7	11	40.5	Rc1/8	NPT1/8	G1/8	26	20	78	35	178	156	176	112	M8 x 1.25	12	20
40	M8 x 1.25	20	M8 x 1.25	6.7	11	46.5	Rc1/8	NPT1/8	G1/8	27	20	92	35	193	172	192	128	M8 x 1.25	12	23
50	M10 x 1.5	22	M10 x 1.5	8.6	14	54.5	Rc1/4	NPT1/4	G1/4	28.5	26	132	44	247	220	240	168	M10 x 1.5	15	25
63	M10 x 1.5	22	M10 x 1.5	8.6	14	68.5	Rc1/4	NPT1/4	G1/4	30	30	160	48	274	248	266	196	M10 x 1.5	15	27