

Non-rotating Double Power Cylinder

Series *MGZ*

ø20, ø25, ø32, ø40, ø50, ø63, ø80

How to Order

MGZ **40** **Z** - **100** - **M9BW** -

Mounting style

Nil	Basic style
L	Transaxial foot style
F	Rod flange style
G	Head flange style

Bore size

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

Thread type

Nil	M5 x 0.8	ø20
	Rc	ø25
TN	NPT	ø32
TF	G	ø40
		ø50
		ø63
		ø80

Made to Order

For details, refer to page 429.

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

Cylinder stroke (mm)

Refer to "Standard Stroke" on page 429.

Coil scraper

Nil	None
Z	Yes

Applicable Auto Switch/Refer to pages 1719 to 1827 for detailed specifications of 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 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	●	●	●	○	○	—	
	3-wire (NPN)			5 V, 12 V				M9NWV	M9NW	●	●	●	○	○		
	3-wire (PNP)			5 V, 12 V	M9PWV	M9PW		●	●	●	○	○	IC circuit			
	2-wire			12 V	M9BWV	M9BW		●	●	●	○	○	—			
	3-wire (NPN)			5 V, 12 V	M9NAV	M9NA		○	○	●	○	○	IC circuit			
	3-wire (PNP)				M9PAV	M9PA		○	○	●	○	○				
	2-wire				12 V	M9BAV		M9BA	○	○	●	○		○	—	
	3-wire (NPN equiv.)				—	5 V		—	A96V	A96	●	—		●	—	
—	Grommet	No	2-wire	24 V	12 V	100 V 100 V or less	A93V	A93	●	—	●	—	—	—	Relay, PLC	
						A90V	A90	●	—	●	—	—	—	IC circuit		

* 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 "○" are produced upon receipt of order.

* Refer to page 445 for applicable auto switches other than listed above.

* Refer to pages 1784 and 1785 for details of auto switches with a pre-wired connector.

* Auto switches are shipped together (not assembled).

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Specifications

Bore size (mm)		20	25	32	40	50	63	80
Action		Double acting, Single rod						
Fluid		Air						
Proof pressure		1.5 MPa						
Max. operating pressure		1.0 MPa						
Min. operating pressure		Standard stroke: 0.08 MPa						
		Long stroke: 0.12 MPa						
Ambient and fluid temperature		Without auto switch: -10° to 70°C (With no freezing)						
		With auto switch: -10° to 70°C (With no freezing)						
Lubrication		Non-lube						
Piston speed	OUT	50 to 700 mm/s						
	IN	50 to 350 mm/s	50 to 450 mm/s					
Stroke length tolerance		Up to 250 ^{+1.0} ₀ , 251 to 1000 ^{+1.4} ₀						
Cushion		Rubber bumper						
Mounting		Basic style, Transaxial foot style, Rod flange style, Head flange style						



Made to Order
(Refer to page 2002 for details.)

Symbol	Specifications
-X1247	Rod end female thread: 1 pc.

Standard Stroke

Bore sizes (mm)	Standard stroke (mm)	Long stroke (mm)
20, 25	75, 100, 125, 150, 175 200, 250, 300	350, 400, 450, 500 600, 700, 800
32, 40, 50 63, 80	75, 100, 125, 150, 175 200, 250, 300	350, 400, 450, 500, 600 700, 800, 900, 1000

Intermediate strokes and strokes shorter than 75 mm are also available.

Mass

Bore size (mm)		20	25	32	40	50	63	80
Standard mass	Basic style	0.47	0.69	1.04	1.90	3.03	4.83	8.63
	Foot style	0.63	0.86	1.34	2.39	3.92	6.08	10.61
	Flange style	0.58	0.83	1.32	2.34	3.79	5.83	9.92
Mass per each 50 mm of stroke		All mounting brackets	0.18	0.21	0.28	0.39	0.59	1.17

Theoretical Output

Model	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	(N)
MGZ20	20 x 25	10	OUT	726	145	218	290	363	436	508	581	653	726	
	20		IN	236	47	71	94	118	141	165	189	212	236	
MGZ25	25 x 30	12	OUT	1085	217	326	434	543	651	760	868	977	1085	
	25		IN	378	76	113	151	189	227	265	302	340	378	
MGZ32	36 x 32	16	OUT	1621	324	486	648	811	973	1135	1297	1459	1621	
	32		IN	603	121	181	241	302	362	422	482	543	603	
MGZ40	45 x 40	20	OUT	2533	507	760	1013	1267	1520	1773	2026	2280	2533	
	40		IN	942	188	283	377	471	565	659	754	848	942	
MGZ50	55 x 50	25	OUT	3848	770	1154	1539	1924	2309	2694	3078	3463	3848	
	50		IN	1473	295	442	589	737	884	1031	1178	1326	1473	
MGZ63	68 x 63	32	OUT	5945	1189	1784	2378	2973	3567	4162	4756	5351	5945	
	63		IN	2313	463	694	925	1157	1388	1619	1850	2082	2313	
MGZ80	87 x 80	40	OUT	9715	1943	2915	3886	4858	5829	6801	7772	8744	9715	
	80		IN	3770	754	1131	1508	1885	2262	2639	3016	3393	3770	

MGJ

MGP

MGQ

MGG

MGC

MGF

MGZ

MGT

D-☐

-X☐

Individual
-X☐