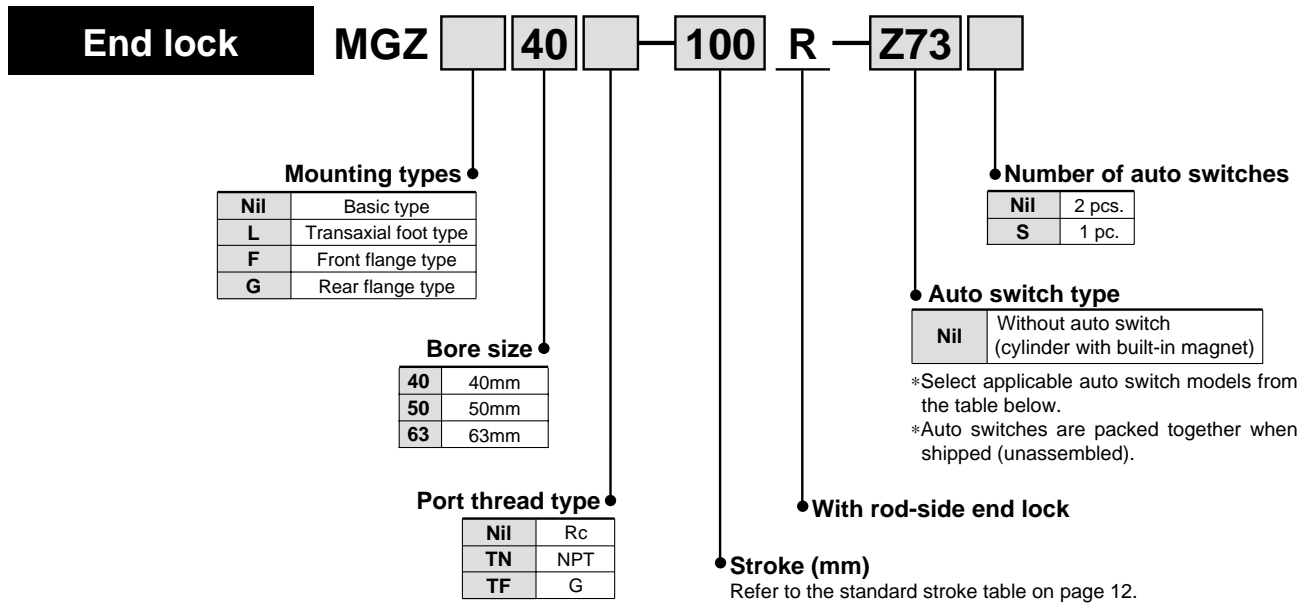


# Non-rotating Double Power Cylinder with Rod-Side End Lock

## Series **MGZ**

ø40, ø50, ø63

### How to Order



### Applicable auto switches: Direct mounting type

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage		Auto switch type		Lead wire length (m)*			Applicable load				
					DC	AC	Electrical entry direction		0.5 (Nil)	3 (L)	5 (Z)					
							Perpendicular	In-line								
Reed switch	—	Grommet	Yes	3-wire (NPN equip.)	—	5V	—	—	Z76	●	●	—	IC circuit	—		
				2-wire	24V	12V	100V	—	Z73	●	●	●	—	Relay PLC		
					5V, 12V	100V or less	—	Z80	●	●	—	IC circuit	—			
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24V	5V, 12V	—	Y69A	Y59A	●	●	○	IC circuit	Relay PLC		
				3-wire (PNP)				Y7PV	Y7P	●	●	○	—			
				2-wire				Y69B	Y59B	●	●	○	—			
	Diagnostic indication (2-color display)			3-wire (NPN)				5V, 12V	—	Y7NWV	Y7NW	●	●		○	IC circuit
	Improved water resistance (2-color display)			3-wire (PNP)				12V	—	Y7PWV	Y7PW	●	●		○	—
				2-wire					—	Y7BWV	Y7BW	●	●		○	—
				—					—	Y7BA	—	●	○		—	

\*Lead wire length symbols: 0.5m.....Nil (Example) Y69B  
 3m.....L (Example) Y69BL  
 5m.....Z (Example) Y69BZ

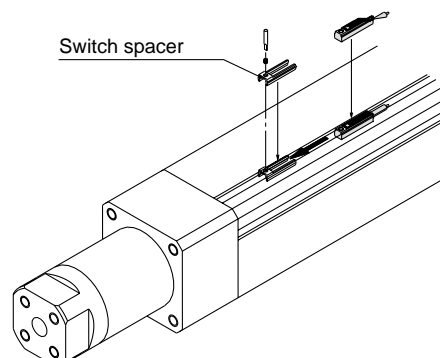
(Notes) • Solid state switches marked "○" are produced upon receipt of order.  
 • Retrofitting of an auto switch on a cylinder that is originally ordered without one requires a switch spacer per the table below.

#### Switch Spacer

Applicable bore size (mm)	<b>40, 50, 63</b>
Switch spacer model	BMP1-032

#### Mounting Bracket Part Nos.

Bore size (mm)	40	50	63
Foot	MGZ-L04	MGZ-L05	MGZ-L06
Flange	MGZ-F04	MGZ-F05	MGZ-F06



# Non-rotating Double Power Cylinder with Rod-Side End Lock *Series MGZ*



## Cylinder Specifications

Bore size (mm)	40	50	63
Action	Double acting/Single rod		
Fluid	Air		
Proof pressure	1.5MPa		
Max. operating pressure	1.0MPa		
Min. operating pressure	0.2MPa*		
Ambient and fluid temperature	Without auto switch: -10° to 70°C (with no freezing)		
	With auto switch: -10° to 60°C (with no freezing)		
Lubrication	Non-lube		
Piston speed	OUT 50 to 700mm/s		
	IN 50 to 450mm/s		
Stroke length tolerance	Up to 250 <sup>+1.0</sup> <sub>0</sub> , 251 to 1000 <sup>+1.4</sup> <sub>0</sub>		
Cushion	Rubber bumper		
Screw tolerance	JIS class 2		
Mounting	Basic type, Transaxial foot type, Front flange type, Rear flange type		

\*0.08MPa (or 0.12MPa for long strokes) except for the lock part.

## Lock Specifications

End lock position	Rod side only		
Holding force (max) N	ø40	ø50	ø63
	1770	2690	4160
Backlash	2mm or less		
Manual release	Non-locking type		

Adjust the switch position so that it operates upon movement to both the stroke end and backlash (2mm) position.

## Standard Strokes

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

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

## Weights

(kg)

Bore size (mm)		40	50	63
Standard weight	Basic type	2.80	4.08	6.13
	Foot type	3.29	4.97	7.39
	Flange type	3.24	4.84	7.13
Weight per each 50mm of stroke	All mounting brackets	0.41	0.61	0.80

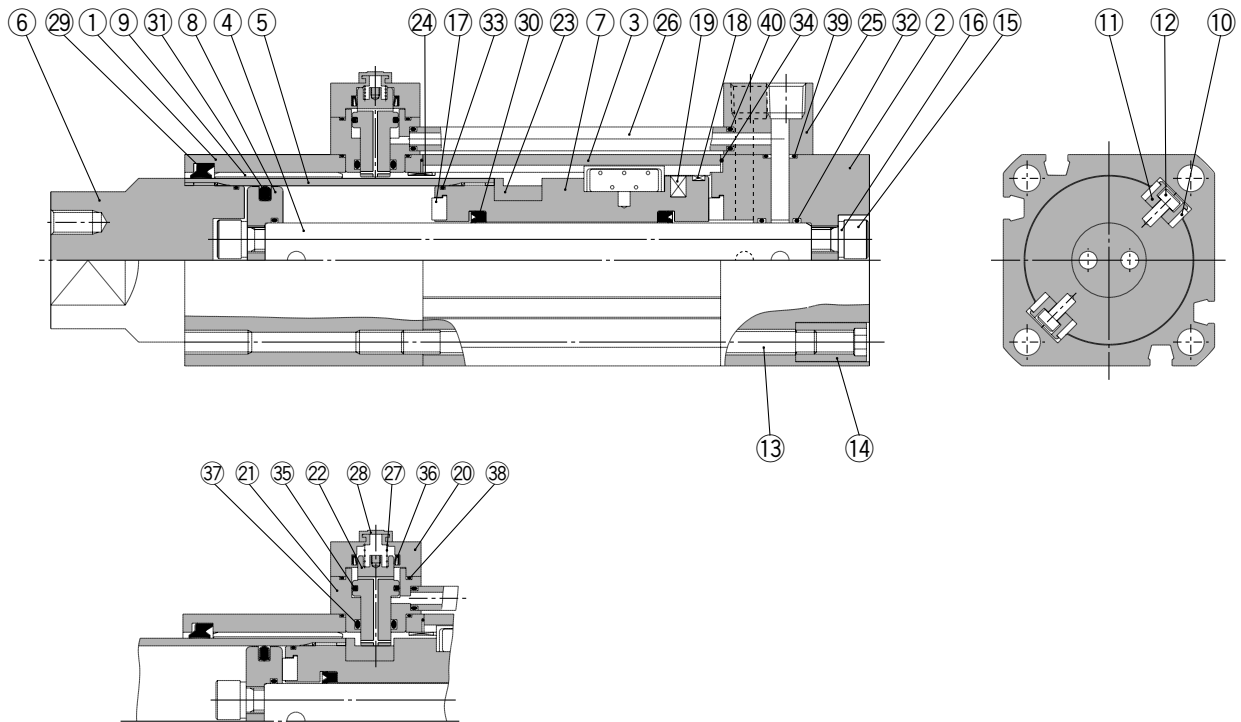
## Theoretical Output

(N)

Model	Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm <sup>2</sup> )	Operating pressure (MPa)								
					0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
MGZ40	45 × 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 × 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 × 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

# Series MGZ

## Construction



End lock

### Parts list

No.	Description	Material	Note
1	Rod cover	Aluminum alloy	Clear anodized
2	Head cover	Aluminum alloy	Clear anodized
3	Cylinder tube	Aluminum alloy	Hard anodized
4	Piston rod	Aluminum alloy	Hard anodized
5	Tube rod	Carbon steel tube	Hard chromium electroplated
6	Tube rod cover	Carbon steel	Electroless nickel plated
7	Piston	Aluminum alloy	Chromated
8	Stationary piston	Aluminum alloy	Chromated
9	Bushing	Lead-bronze casting	
10	Thrust plate	Lead-bronze casting	
11	Holder	Aluminum alloy	Chromated
12	Pin	Carbon steel	Zinc chromated
13	Tie rod	Carbon steel	Corrosion resistant chromated
14	Tie rod nut	Carbon steel	Nickel plated
15	Hexagon socket head screw	Chrome molybdenum steel	Nickel plated
16	Spring washer	Steel wire	Nickel plated
17	Bumper	Urethane rubber	
18	Wear ring	Resin	
19	Magnet	Magnet	
20	Cap	Bronze alloy	Electroless nickel plated

No.	Description	Material	Note
21	Lock holder	Stainless steel	
22	Lock piston	Carbon steel	Quenched, hard chromium electroplated
23	Stopper	Carbon steel	Quenched
24	Collar	Lead-bronze casting	
25	Port block	Bronze alloy	Electroless nickel plated
26	Pipe	Bronze alloy	
27	Lock spring	Steel wire	
28	Rubber cap	Synthetic rubber	
29*	Rod seal A	NBR	
30	Rod seal B	NBR	
31	Piston seal	NBR	
32	Piston gasket	NBR	
33	Tube rod gasket	NBR	
34*	Cylinder tube gasket	NBR	
35*	Locking piston seal A	NBR	
36*	Locking piston seal B	NBR	
37*	Locking piston seal C	NBR	
38*	Lock holder gasket	NBR	
39*	Port block gasket	NBR	
40*	Pipe gasket	NBR	

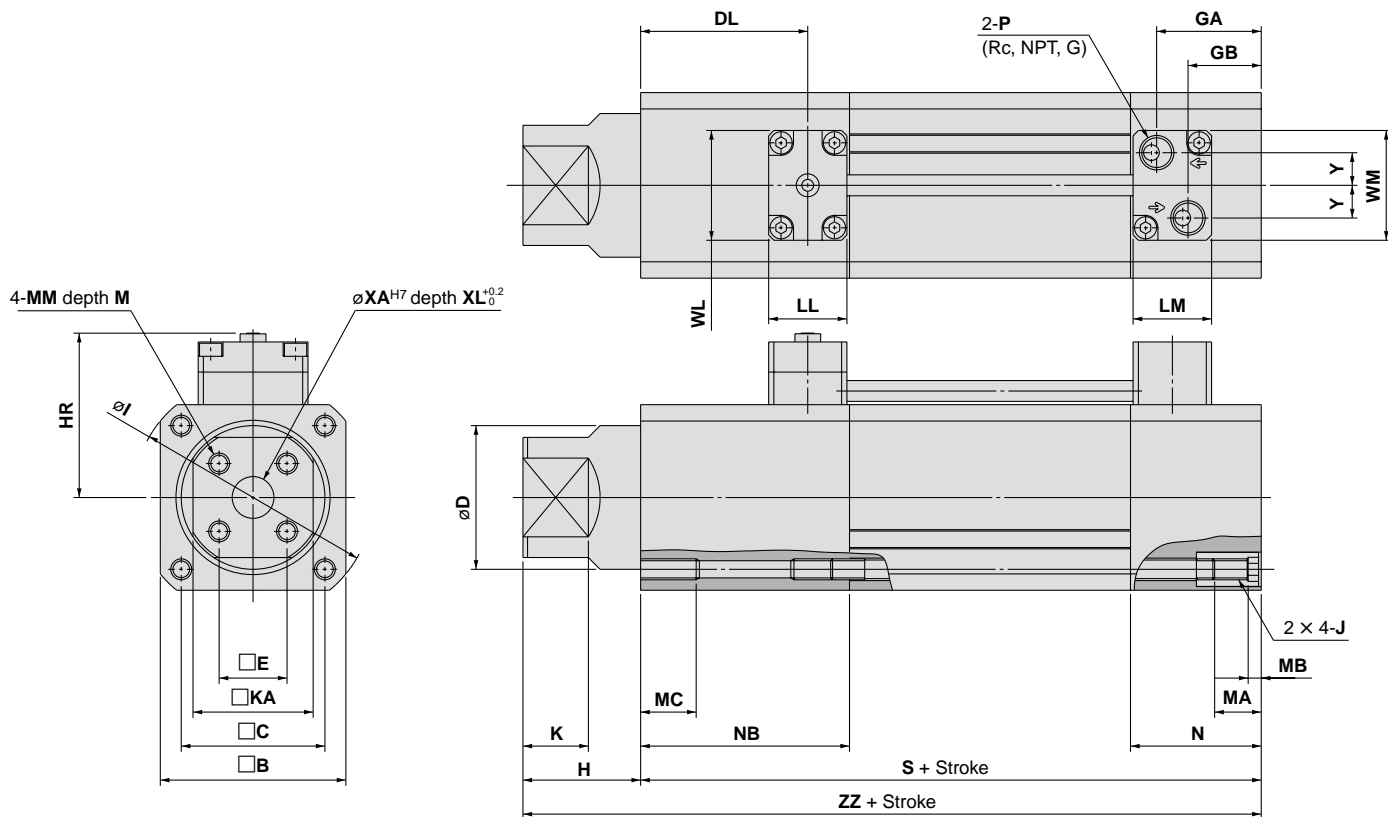
### Replacement parts: Seal kits

Bore size (mm)	Seal kit no.	Kit components
40	MGZ40R-PS	Items 29, and 34 to 40 from the above chart
50	MGZ50R-PS	
63	MGZ63R-PS	

\*Seal kits consist of items 29 and 34 to 40, and can be ordered by using the seal kit number corresponding to each bore size.

## Dimensions

### Basic type



(mm)

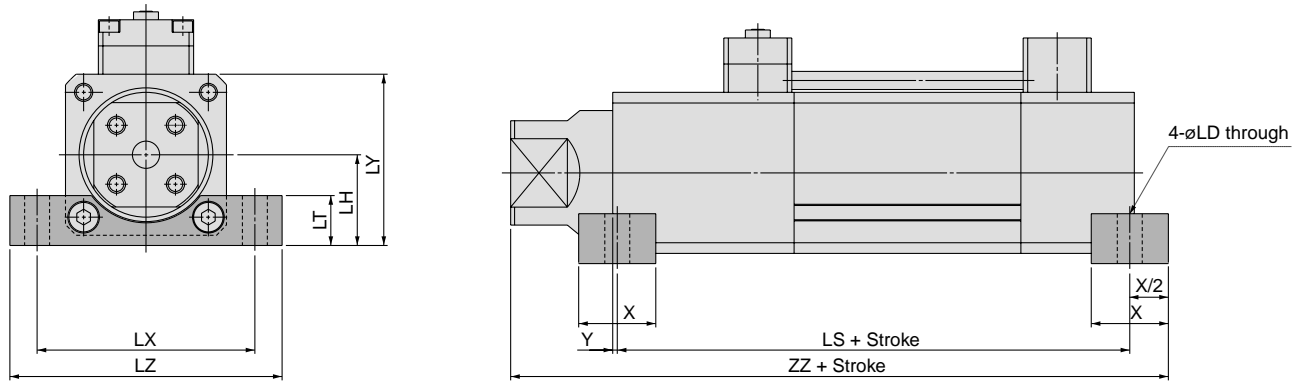
Bore size (mm)	Stroke range	B	C	D	DL	E	GA	GB	H	HR	I	J	K	KA	LL	LM
40	to 1000	59	46	45	58	21	34.5	23.5	40	57.5	78	M6 × 1.0	25	36	30	30
50	to 1000	71	55	55	67	26	40	28	45	63.5	92	M8 × 1.25	25	46	30	30
63	to 1000	82	66	68	73	32	46.5	34.5	50	69	110	M8 × 1.25	25	53	30	30

Bore size (mm)	Stroke range	M	MA	MB	MC	MM	N	NB	P	S	XA	XL	Y	WL	WM	ZZ
40	to 1000	10	16	4	12	M6 × 1.0	44	74	1/4	168	12	6	9.5	42	39	208
50	to 1000	14	16	5	15	M8 × 1.25	50	83	1/4	183	16	6	12.5	42	42	228
63	to 1000	14	16	5	15	M8 × 1.25	56	89	1/4	204	16	6	15	52	52	254

# Series MGZ

## Dimensions: With Mounting Bracket

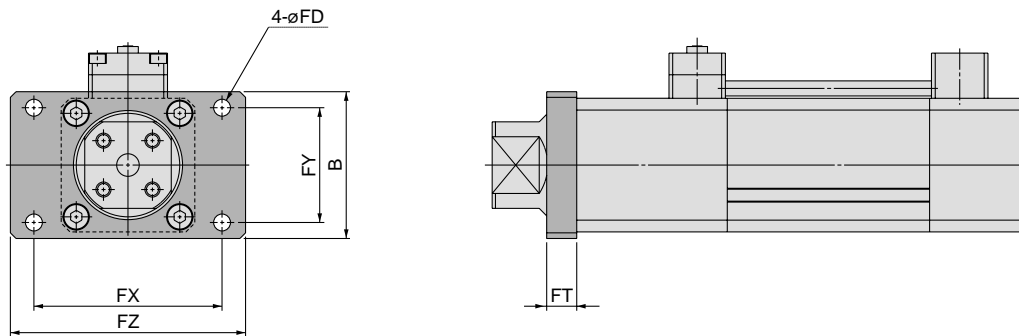
### Transaxial foot: (L) type



(mm)

Bore size (mm)	Stroke range	X	Y	LD	LH	LT	LX	LY	LZ	LS	ZZ
40	to 1000	24	0	9	34	19	80	63.5	100	168	220
50	to 1000	32	1	11	40	22	96	75.5	120	181	243
63	to 1000	36	3	13	47	24	110	88	140	198	269

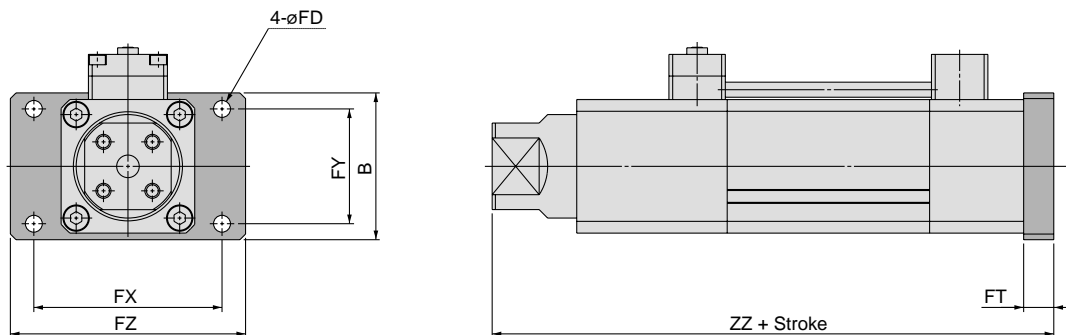
### Front flange: (F) type



(mm)

Bore size (mm)	Stroke range	B	FD	FT	FX	FY	FZ
40	to 1000	74	9	12	80	58	100
50	to 1000	78	9	16	100	61	125
63	to 1000	100	12	16	112	75	138

### Rear flange: (G) type



(mm)

Bore size (mm)	Stroke range	B	FD	FT	FX	FY	FZ	ZZ
40	to 1000	74	9	12	80	58	100	220
50	to 1000	78	9	16	100	61	125	244
63	to 1000	100	12	16	112	75	138	270