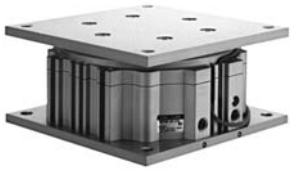
Series 10-MGF

Guide table ø40, ø63, ø100

How to Order



10 - M G F 63 [ ] - 50 - Y59B [ ]

Clean series

10	Relief type

Bore size (mm)

Port type

Symbol	Type	Bore size
Nil	Rc	ø40, ø63, ø100
TN	NPT	
TF	G	

Cylinder stroke (mm)

Type of auto switch

Reed switch	Z73
Solid state switch	Y59A,Y59B

Number of auto switches

Nil	2 pcs.
S	1 pc.

Model

Model		Bore size (mm)	Port size	Lubrication	Action	Standard stroke * (mm)	Auto switch mounting	Cushion	
								Rubber	Air
Relief type	**10-MGF40**	40	1/8	Non-lube	Double acting	30, 50, 75, 100	○	○ (Both sides)	-
	10-MGF63	63	1/4						
	10-MGF100	100							

* Non-standard intermediate strokes (in 5 mm increments) are available by attaching a spacer of 5, 10, 15, 20 or 25 mm width.

Specifications

Item \ Bore size(mm)	40/63/100
Proof pressure	1.5MPa
Max. operating pressure	1.0MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	–10 to 60°C (With no freezing)
Piston speed	20 to 200 mm/s
Stroke length tolerance	$^{+1.0}_{0}$ mm
Grease	Fluorine grease
Particle generation grade (Refer to front matter pages 13 to 22 for details.)	Grade 2

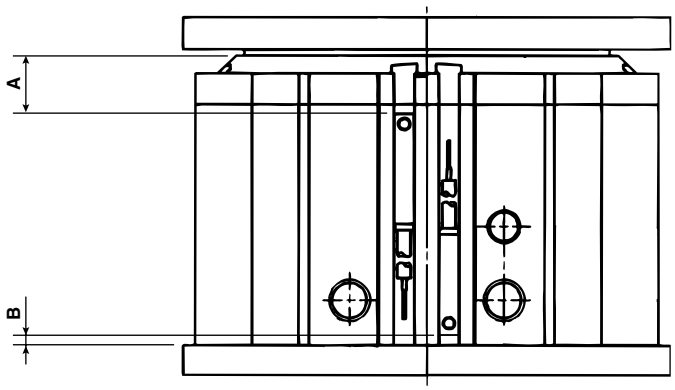
Auto switch specifications (Refer to Best Pneumatics catalog for detailed specifications and auto switches not in the following table.)

Style		Auto switch part no.	Load voltage	Load current range	Indicator light	Application
Reed switch		**D-Z73**	24 VDC,100 VAC	5 to 40mA, 5 to 20mA	○	Relay, PLC
Solid state switch	2-wire type	**D-Y59B**	24 VDC (10 to 28 VDC)	5 to 40mA	○	24 VDC Relay, PLC
	3-wire type	**D-Y59A**	28 VDC or less	40mA or less	○	IC circuit, Relay, PLC

Refer to applicable auto switch list — Page 182.

PLC: Programmable Logic Controller

Auto switches / Proper mounting position for stroke end detection



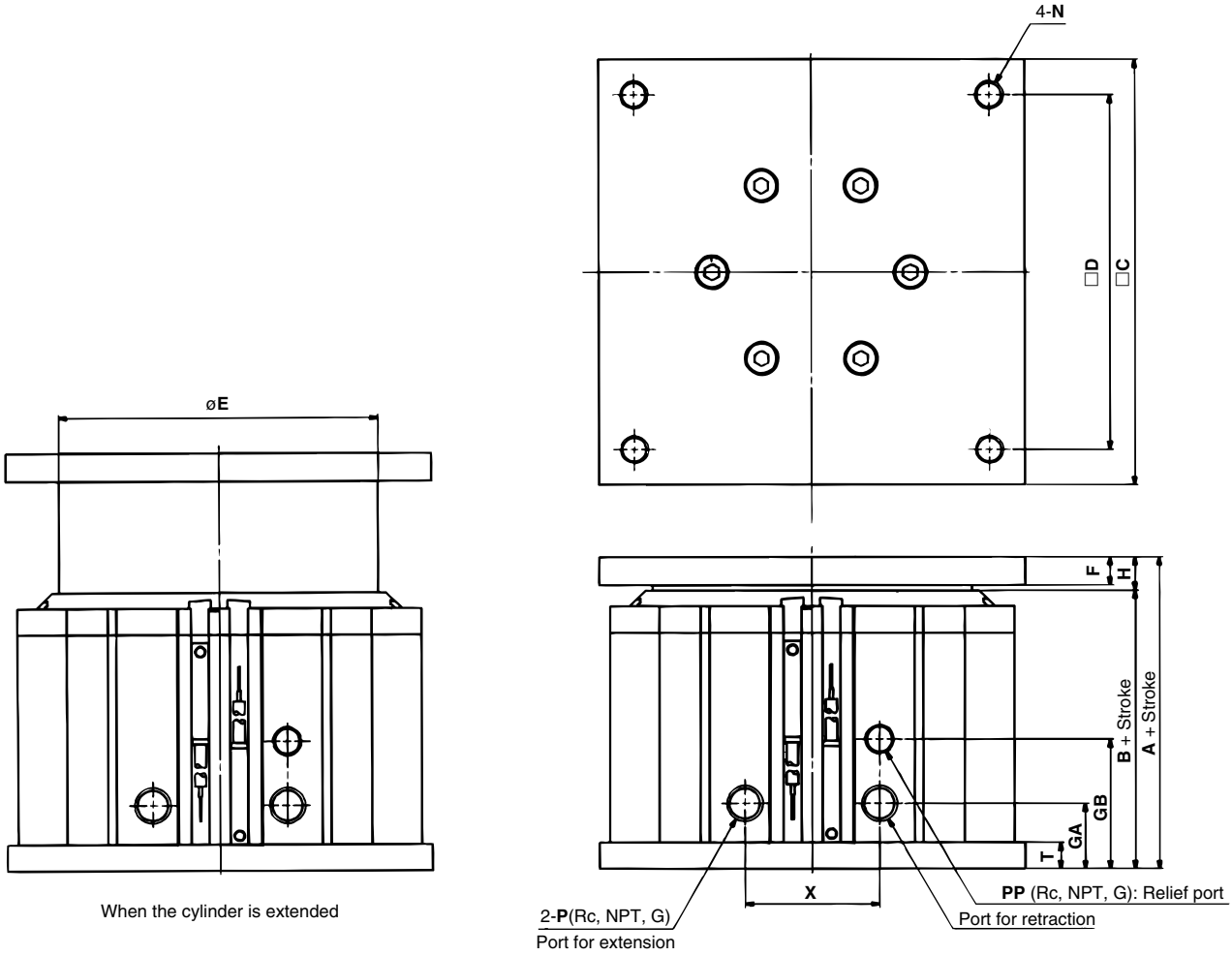
Proper mounting position (mm)

Bore size	A	B
40	16	0
63	27.5	0
100	32.5	0

Note) The above mentioned values are indicated as a guide for auto switch mounting position for stroke end detection. When actually mounting an auto switch, adjust the position after confirming the operating state of the auto switch.

Dimensions

10-MGF40/63/100



(mm)

Bore size	Standard stroke	A	B	C	D	E	F	GA	GB	H	KA	KB	KC	M	N	P	PP	T	V	X
40	30, 50,75, 100	58	48.5	120	100	90	8	18.5	36.5	9.5	M5	8.7	3.5	M8 x 1.25	M8 x 1.25	1/8	1/8	7.5	40	38
63		73	61.5	160	140	120	10	20	38	11.5	M6	11	4	M10 x 1.5	M10 x 1.5	1/4	1/8	9	50	46
100		78	66.5	200	170	160	10	20	38	11.5	M6	11	4	M12 x 1.75	M12 x 1.75	1/4	1/8	9	70	46

Specific Product Precautions

Be sure to read before handling.

Selection

⚠ Caution

1. Operate loads within the range of the operating limits.

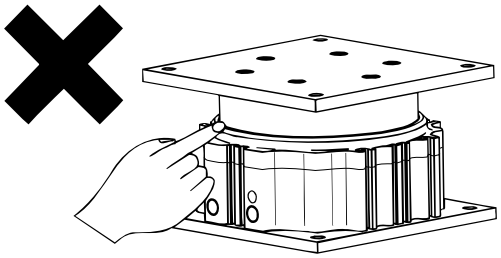
Select a load taking into consideration the allowable horizontal loads, rotational torque and eccentric loads that will apply. When used in excess of the applicable limit, eccentric loads applied to the tubing guide will cause wear of the guide, increase the guide's deviation range, cause stress cracks and breaks on the mounting bolts, and decrease the life of the cylinder.

2. Care should be taken to avoid scratches or gouges on the mounting surface of the plate or end plate.

The flatness of the mounting face may deteriorate, the guide's deviation range may increase and the sliding resistance may become greater.

3. Do not allow hands or fingers near the cylinder during its operation.

Your fingers may be caught between the body and the plate. If you need to come near the cylinder during its operation, install a cover on the cylinder.



4. Do not bring objects that are sensitive to magnetism near the cylinder.

The magnet is built into the cylinder. Do not bring magnetic disks, cards or tapes near the cylinder. Data may be lost.

5. If the cylinder is operated vertically with heavy loads, measures must be taken to prevent rapid extension of the piston rod when starting to operate in the downward direction.

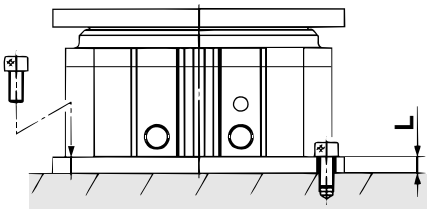
If the cylinder is operated vertically with heavy loads at the same pressure for both upward and downward directions, the starting speed in the downward direction may be higher than the speed controlled with a speed controller. In such cases, use a dual pressure control circuit as a pneumatic circuit.

Mounting

⚠ Caution

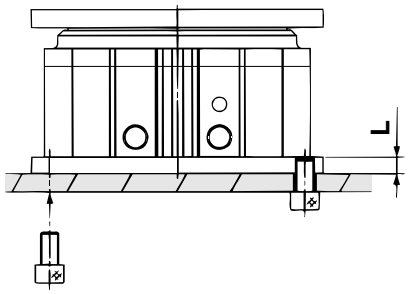
1. When mounting the cylinder, use screws of appropriate lengths and tighten with proper force not exceeding the maximum tightening torque.

Mounting from upper side



Model	Bolt	Maximum tightening torque N·m	**L**(mm)
MGF40	M6 x 1	10	7.5
MGF63	M8 x 1.25	25	9
MGF100	M10 x 1.5	51	9

Mounting from bottom side



Model	Bolt	Maximum tightening torque N·m	L(mm)
MGF40	M8 x 1.25	18	7.5
MGF63	M10 x 1.5	36	9
MGF100	M12 x 1.75	65	9