

MGP-Z (ø12 to ø32), Compact Guide Cylinder

MGPM20TF-10Z

Datasheet

General series information

- 3 types of bearing can be selected: slide bearing, ball bushing and high precision ball bushing.
- Compactness & Lightness
- Bore size: 12, 16, 20, 25, 32 (mm)
- Strokes from 1 to 400mm (depending upon bore size)
- 4 types of mounting are possible: top mounting, side mounting, bottom mounting and T-slot side mounting.
- Auto switches can be mounted on 2 surfaces.



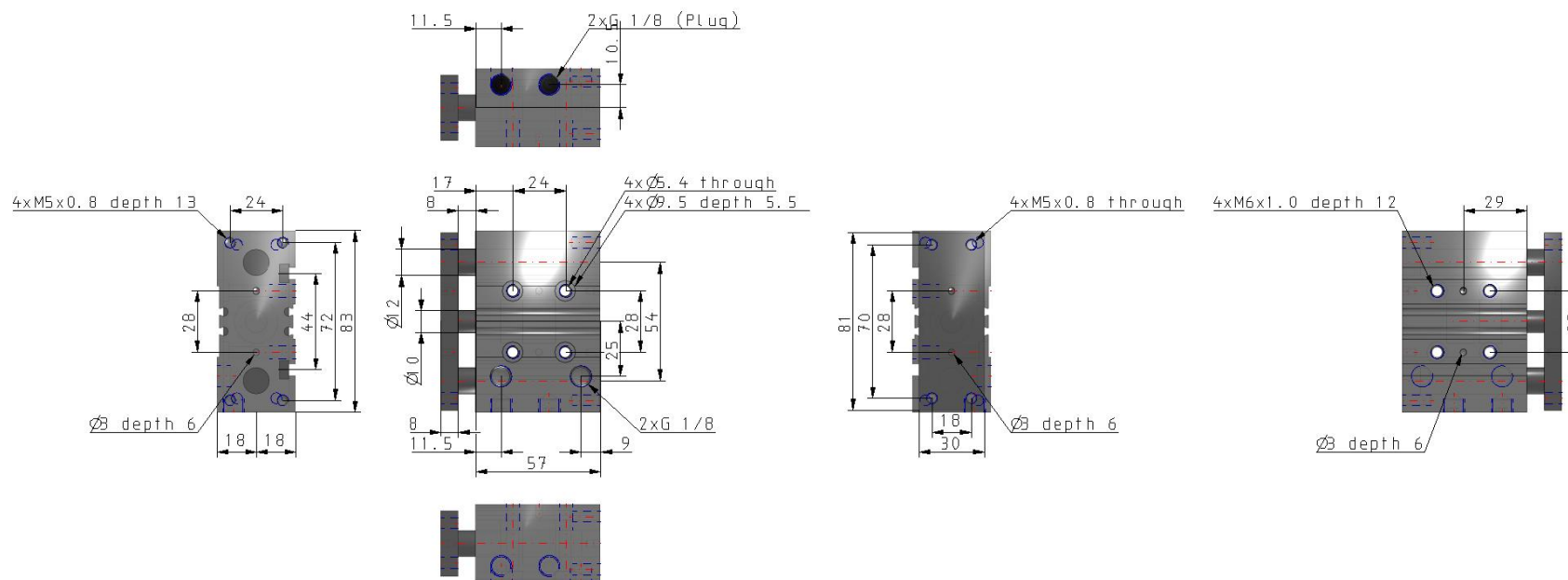
Double-acting, single-rod cylinder

Standard specifications

Bearing Type	M (Slide Bearing)
Bore Size	Ø20 mm
Port Thread Type	TF [G]
Lube-retainer	Without Stable Lubrication Function
Stroke	10
Auto Switch	No Switch
Lead Wire Length	0.5m [Or None in the Case of No Switch]
Number of Auto Switches	2 pcs. [Or None in Case of No Switch]
Change of Guide Rod End Shape	None
Temperature Resistance	None
Low Speed	None
Stainless Steel	None
Fluororubber Seal	None
Grease for Food Processing Equipment	None
Pressure medium	Compressed air
Maximum temperature of pressure medium	60 °C
Minimum temperature of pressure medium	-10 °C (No freezing)

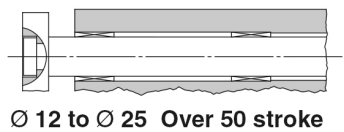
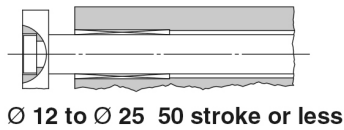
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.1 MPa
Proof pressure	1.5 MPa
Maximum ambient temperature	60 °C
Minimum ambient temperature	-10 °C (No freezing)
Number of pneumatic connections	4 pcs.
Pneumatic input connection	G 1/8
Pneumatic exhaust connection	G 1/8
Mode of operation of drive	Double acting
Theoretical cylinder force, advance stroke (at 0.5 MPa)	157 N
Theoretical cylinder force, return stroke (at 0.5 MPa)	118 N
Maximum piston speed	500 mm/s
Type of cushioning	Rubber bumper on both ends
Non-rotating accuracy of plate	± 0.06 °
Weight	0.635 Kg

Dimensions



Constructions

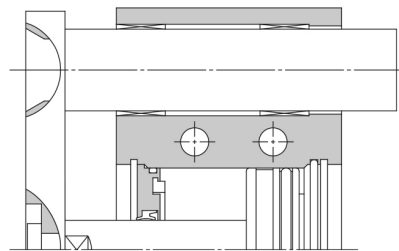
MGPM12 to 25



MGPM32 to 100



Ø 63 or more



Ø 50 or more

Component Parts

No.	Description	Material	Note
1	Body	Aluminium alloy	Hard anodised
2	Piston	Aluminium alloy	
3	Piston rod	Stainless steel	Ø 12 to Ø 25
		Carbon steel	Ø 32 to Ø 100 Hard chrome plating
4	Collar	Aluminium alloy	Chromated
5	Head cover	Aluminium alloy	Ø 12 to Ø 63 Chromated
			Ø 80, Ø 100 Painted
6	Guide rod	Carbon steel	Hard chrome plating
7	Plate	Carbon steel	Nickel plating
8	Plate mounting bolt	Carbon steel	Nickel plating
9	Guide bolt	Carbon steel	Nickel plating
10	Retaining ring	Carbon tool steel	Phosphate coated
11	Retaining ring	Carbon tool steel	Phosphate coated
12	Bumper A	Urethane	
13	Bumper B	Urethane	
14	Magnet	—	
15	Plug Hexagon socket head plug	Carbon steel	Ø 12, Ø 16 Nickel plating
			Ø 20 to Ø 100
16	Slide bearing	Bearing alloy	

*: A felt is not installed on the slide bearing.

Component Parts

No.	Description	Material	Note
17	Ball bushing		
18	Spacer	Aluminium alloy	
19	Steel ball	Carbon steel	Ø 12 to Ø 50
20	Plug	Carbon steel	Ø 63 to Ø 100 Nickel plating
21*	Piston seal	NBR	
22*	Rod seal	NBR	
23*	Gasket A	NBR	
24*	Gasket B	NBR	

Replacement Parts/Seal Kit

Bore size [mm]	Kit no.	Contents	Bore size [mm]	Kit no.	Contents
12	MGP12-Z-PS	Set of nos.	40	MGP40-Z-PS	Set of nos.
16	MGP16-Z-PS		50	MGP50-Z-PS	
20	MGP20-Z-PS	above	63	MGP63-Z-PS	above
25	MGP25-Z-PS	②①, ②②	80	MGP80-Z-PS	②①, ②②
32	MGP32-Z-PS	②③, ②④	100	MGP100-Z-PS	②③, ②④

*: Seal kit includes ②① to ②④. Order the seal kit, based on each bore size.

*: Since the seal kit does not include a grease pack, order it separately.

Grease pack part number: GR-S-010 (10 g)

Additional information

Catalogue

[MGP-Z-Dd_EU.pdf](#)

Operation manuals

[OM_MGP-Z_MGPx-OM0047PEN-B.pdf](#)