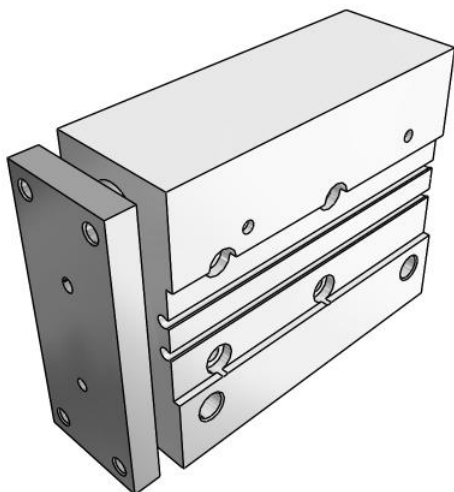




## MGP-AZ, Compact Guide Cylinder, Air Cushion MGPM25TF-50AZ

### Datasheet

### General series information

- With Air Cushion.
- 3 types of bearing can be selected: slide bearing, ball bushing and high precision ball bushing.
- Compactness & Lightness
- Bore size: 16, 20, 25, 32, 40, 50, 63, 80, 100 (mm)
- Strokes from 10 to 400mm (depending upon bore size)
- Auto switches can be mounted on 2 surfaces.



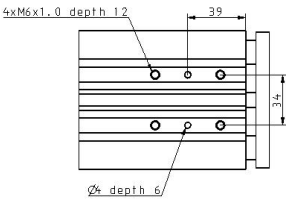
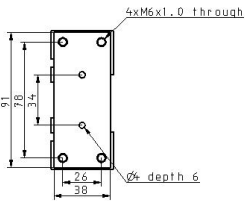
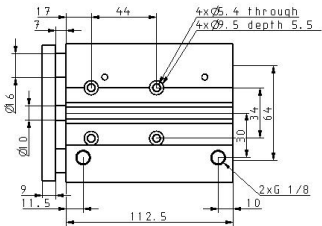
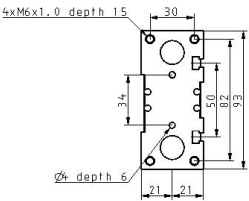
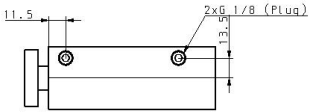
Double-acting, single-rod cylinder

### Standard specifications

|                                         |                                           |
|-----------------------------------------|-------------------------------------------|
| Bearing Type                            | M (Slide Bearing)                         |
| Bore Size                               | Ø25 mm                                    |
| Port Thread Type                        | TF [G]                                    |
| Stroke                                  | 50 mm                                     |
| Auto Switch                             | No Switch                                 |
| Lead Wire or Prewired Connector         | 0.5m [Or None in the Case of No Switch]   |
| Number                                  | 2 pcs. [Or None in the Case of No Switch] |
| Made to Order                           | None                                      |
| Pressure medium                         | 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              | 0.12 MPa                                  |
| Proof pressure                          | 1.5 MPa                                   |
| Maximum ambient temperature             | 60 °C                                     |
| Maximum ambient temperature with magnet | -10 °C (No freezing)                      |
| Number of pneumatic connections         | 4 pcs.                                    |

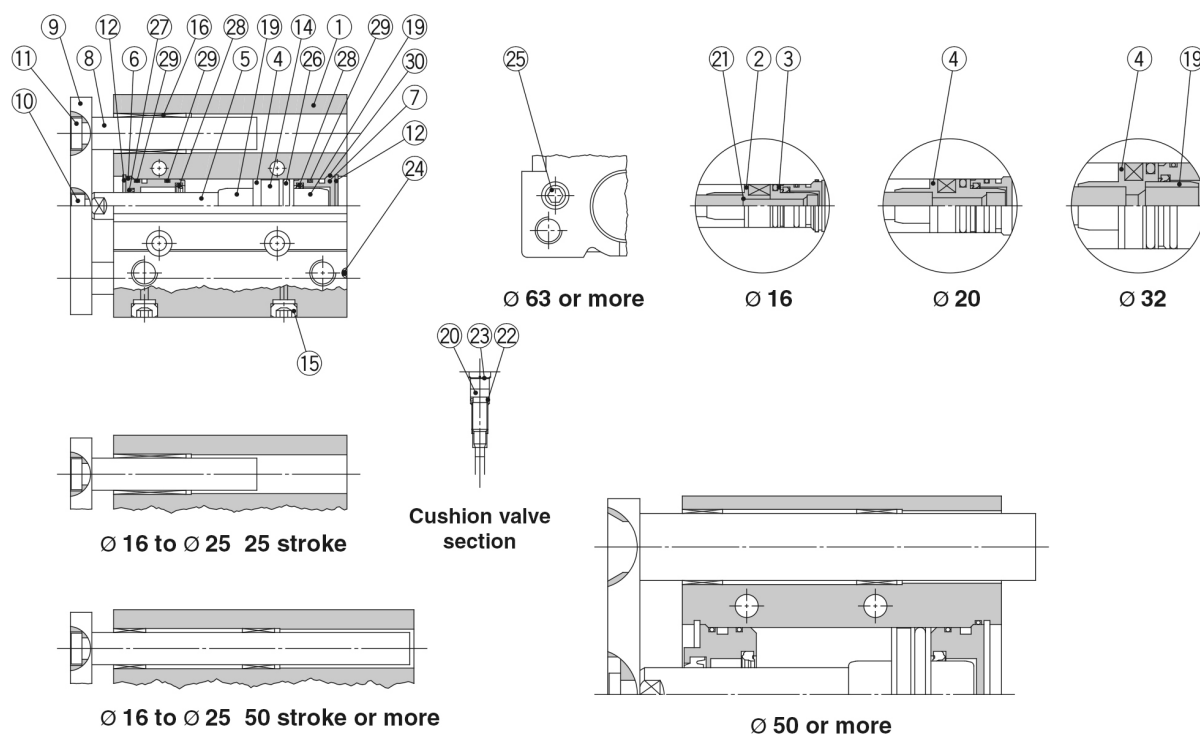
|                                                         |                                           |
|---------------------------------------------------------|-------------------------------------------|
| Pneumatic input connection                              | G 1/8                                     |
| Pneumatic output connection                             | G 1/8                                     |
| Mode of operation of drive                              | Double acting                             |
| Theoretical cylinder force, advance stroke (at 0.5 MPa) | 245 N                                     |
| Theoretical cylinder force, return stroke (at 0.5 MPa)  | 206 N                                     |
| Maximum piston speed                                    | 500 mm/s                                  |
| Type of cushioning                                      | Air cushion on both ends (Without bumper) |
| Non-rotating accuracy of plate                          | $\pm 0.06^{\circ}$                        |
| Weight                                                  | 1.430 Kg                                  |

Dimensions



# Constructions

## MGPM



### Component Parts

| No. | Description         | Material          | Note                                     |
|-----|---------------------|-------------------|------------------------------------------|
| 1   | Body                | Aluminium alloy   | Hard anodised                            |
| 2   | Piston A            | Aluminium alloy   | Ø 16                                     |
| 3   | Piston B            | Aluminium alloy   | Ø 16                                     |
| 4   | Piston              | Aluminium alloy   | Ø 20 to Ø 100                            |
| 5   | Piston rod          | Stainless steel   | Ø 16 to Ø 25                             |
| 6   | Collar              | Carbon steel      | Ø 32 to Ø 100  Hard chrome plating       |
| 7   | Head cover          | Aluminium alloy   | Chromated                                |
| 8   | Guide rod           | Carbon steel      | Hard chrome plating                      |
| 9   | Plate               | Carbon steel      | Nickel plating                           |
| 10  | Plate mounting bolt | Carbon steel      | Nickel plating                           |
| 11  | Guide bolt          | Carbon steel      | Nickel plating                           |
| 12  | Retaining ring      | Carbon tool steel | Phosphate coated                         |
| 13  | Retaining ring      | Carbon tool steel | Phosphate coated                         |
| 14  | Magnet              | —                 |                                          |
| 15  | Plug                | Carbon steel      | Ø 16<br>Ø 20 to Ø 100  Nickel plating    |
| 16  | Slide bearing       | Bearing alloy     |                                          |
| 17  | Ball bushing        | —                 |                                          |
| 18  | Spacer              | Aluminium alloy   |                                          |
| 19  | Cushion ring        | Aluminium alloy   | Ø 25 to Ø 100  Anodised                  |
| 20  | Cushion valve       |                   | Ø 16 to Ø 32  Electroless nickel plating |
|     |                     |                   | Ø 50 to Ø 100  Chromated                 |
|     | Cushion needle      |                   | Ø 40 only  Electroless nickel plating    |

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

### Component Parts

| No. | Description    | Material          | Note                          |
|-----|----------------|-------------------|-------------------------------|
| 21  | Gasket         | NBR               | Ø 16                          |
| 22  | Gasket         | NBR               |                               |
| 23  | Retaining ring | Carbon tool steel | Ø 50, Ø 63  Phosphate coated  |
| 24  | Steel ball     | Carbon steel      | Ø 16 to Ø 50                  |
| 25  | Plug           | Carbon steel      | Ø 63 to Ø 100  Nickel plating |
| 26* | Piston seal    | NBR               |                               |
| 27* | Rod seal       | NBR               |                               |
| 28* | Cushion seal   | Urethane          |                               |
| 29* | Gasket A       | NBR               |                               |
| 30* | Gasket B       | NBR               |                               |

### Replacement Parts/Seal Kit

| Bore size [mm] | Kit no.     | Contents | Bore size [mm] | Kit no.      | Contents          |
|----------------|-------------|----------|----------------|--------------|-------------------|
| 16             | MGP16-AZ-PS |          | 50             | MGP50-AZ-PS  | Set of nos. above |
| 20             | MGP20-AZ-PS |          | 63             | MGP63-AZ-PS  | Set of nos. above |
| 25             | MGP25-AZ-PS |          | 80             | MGP80-AZ-PS  | Set of nos. above |
| 32             | MGP32-AZ-PS |          | 100            | MGP100-AZ-PS | Set of nos. above |
| 40             | MGP40-AZ-PS |          |                |              |                   |

※: Seal kit includes 26 to 30. 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 no.: GR-S-010 (10 g)

## Additional information

|                   |                                               |
|-------------------|-----------------------------------------------|
| Catalogue         | <a href="#">MGP-Z-Dd_EU.pdf#page=30</a>       |
| Operation manuals | <a href="#">OM_MGP-Z_MGPx-OM0047PEN-B.pdf</a> |