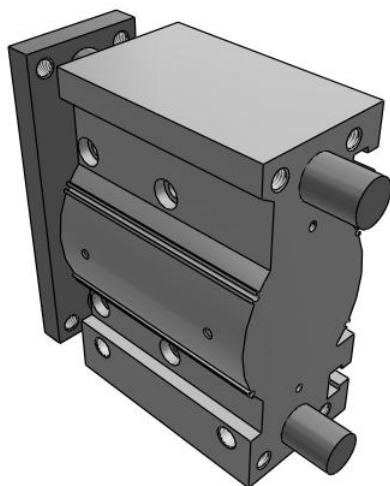


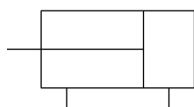


## MGP-AZ, Compact Guide Cylinder, Air Cushion MGPL100TF-75AZ

### 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.



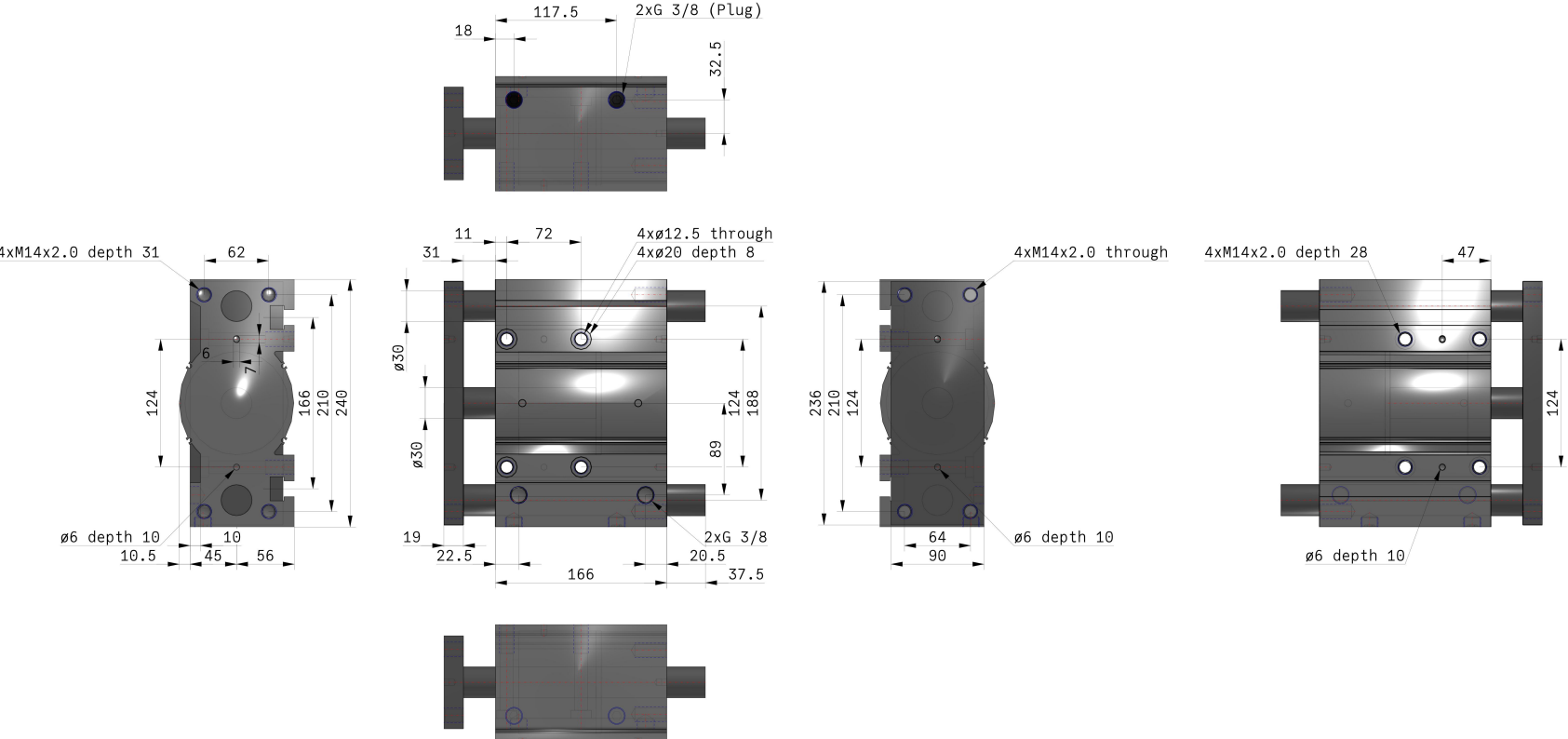
Double-acting, single-rod cylinder

### Standard specifications

|                                         |                                           |
|-----------------------------------------|-------------------------------------------|
| Bearing Type                            | L (Ball Bushing)                          |
| Bore Size                               | Ø100 mm                                   |
| Port Thread                             | TF [G]                                    |
| Stroke                                  | 75 mm                                     |
| Auto Switch                             | No Switch                                 |
| Lead Wire or Pre-wired Connector        | 0.5 m (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.                                    |

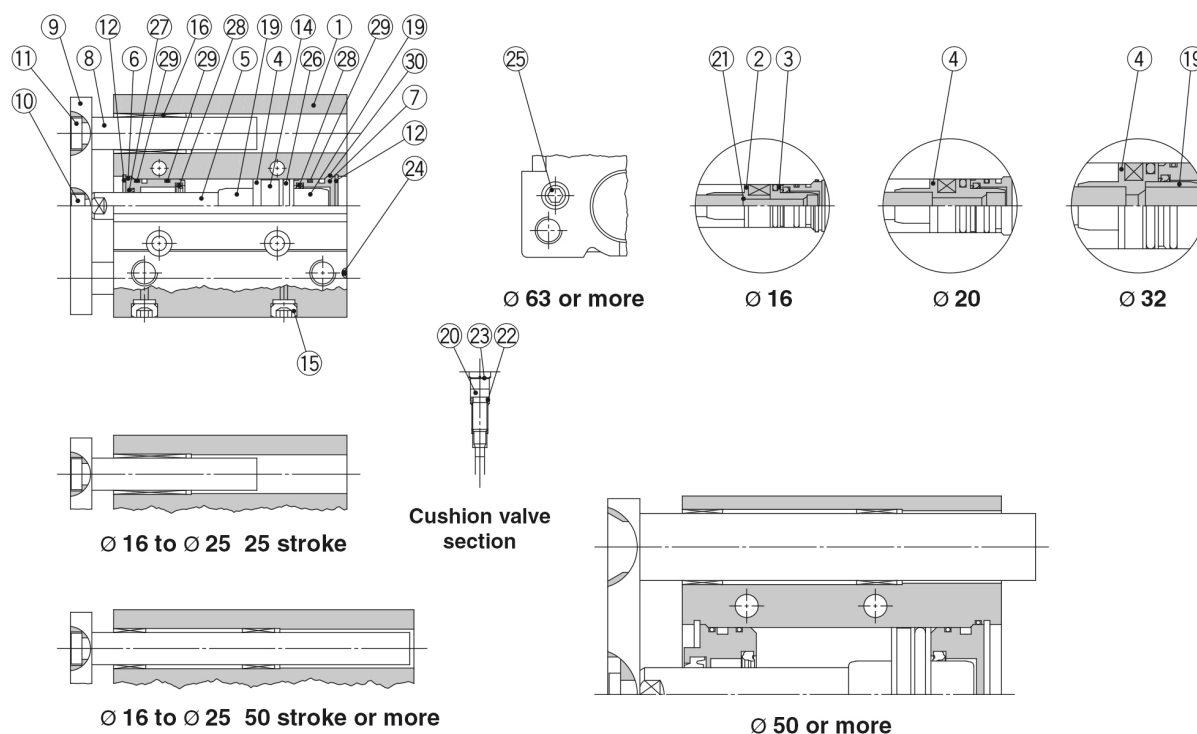
|                                                         |                                           |
|---------------------------------------------------------|-------------------------------------------|
| Pneumatic input connection                              | G 3/8                                     |
| Pneumatic output connection                             | R 3/8                                     |
| Mode of operation of drive                              | Double acting                             |
| Theoretical cylinder force, advance stroke (at 0.5 MPa) | 3927 N                                    |
| Theoretical cylinder force, return stroke (at 0.5 MPa)  | 3574 N                                    |
| Maximum piston speed                                    | 400 mm/s                                  |
| Type of cushioning                                      | Air cushion on both ends (Without bumper) |
| Non-rotating accuracy of plate                          | $\pm 0.03^\circ$                          |
| Weight                                                  | 13.170 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 | Set of nos. above 26, 27, 28, 29, 30 | 80             | MGP80-AZ-PS  | 26, 27, 28, 29, 30 |
| 32             | MGP32-AZ-PS |                                      | 100            | MGP100-AZ-PS | 26, 27, 28, 29, 30 |
| 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

[MGP-Z-Dd\\_EU.pdf#page=30](#)

Operation manuals

[OM\\_MGP-Z\\_MGPx-OM0047PEN-B.pdf](#)