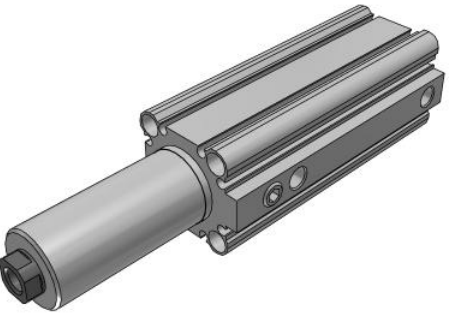
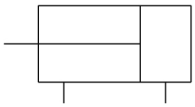


# MK-Z Rotary Clamp Cylinder, Standard w/Auto Switch Mounting Grooves

## MKB32TF-50RZ

## Datasheet

Following customer requests for range of easy to maintain rotary clamp cylinders with a good selection of stroke variations and dual mounting options, our R&D engineers have simply taken the best features of two existing SMC products – Series MK and MK2 - and put them together in our newly amalgamated and improved Series MK. Available in bore sizes from 12 to 63mm and in clamp stroke lengths up to 50mm depending on the selected model, the new MK Series helps answer our customer's needs with the option of both body and through hole mounting selections and easy maintenance possibilities with fully replaceable seals and guide pins. Designed for use with our compact D-M9 auto switch, which can be mounted on all four sides (only 2 sides in the case of 20 and 25mm) these new rotary clamp cylinders when required can also be used in conjunction with our magnetic field resistant auto switch Series D-P3DW.



*Double-acting, single-rod cylinder*

## Standard specifications

| | |
|---|---|
| Mounting | B (Through-hole/Both Ends Tapped Common, Basic) |
| Bore Size | Ø32 mm |
| Port Thread | TF (G) |
| Clamp Stroke | 50 mm |
| Rotary Direction | R (Clockwise) |
| Body Option | Standard (Female Thread) |
| 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 | 70 ºC |
| Maximum temperature of pressure medium with magnet | 60 ºC |
| Minimum temperature of pressure medium | -10 ºC (No freezing) |
| Minimum temperature of pressure medium with magnet | -10 ºC (No freezing) |





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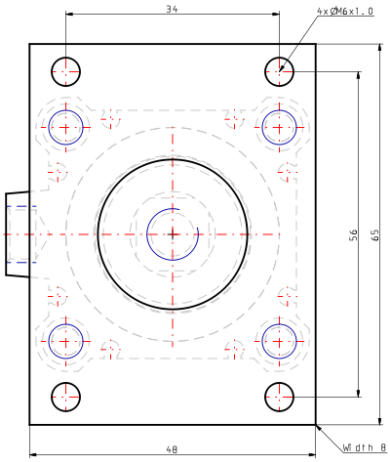
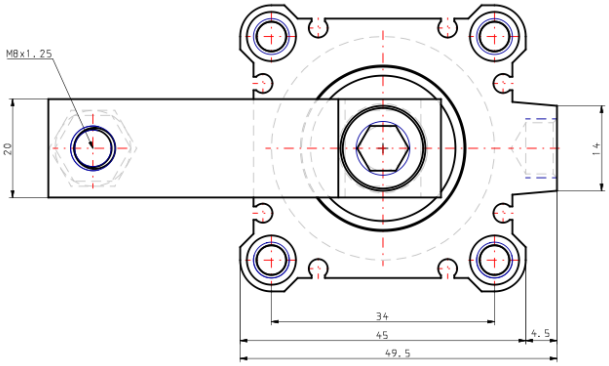
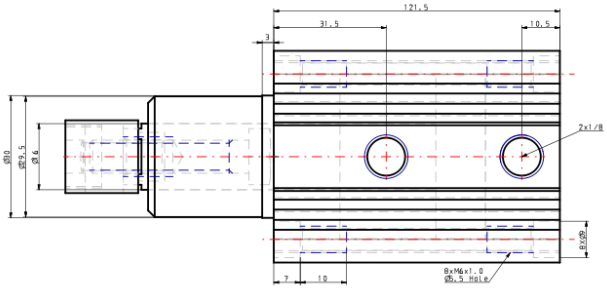
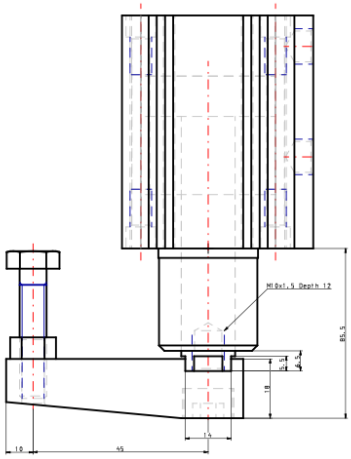
| | |
|---|---|
| Maximum operating pressure | 1.0 MPa |
| Minimum operating pressure | 0.1 MPa |
| Proof pressure | 1.5 MPa |
| Maximum ambient temperature | 70 ºC |
| Maximum ambient temperature with magnet | 60 ºC |
| Minimum ambient temperature | -10 ºC (No freezing) |
| Minimum ambient temperature with magnet | -10 ºC (No freezing) |
| Numbero of pneumatic connections | 2 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) | 402 N |
| Theoretical cylinder force, return stroke (at 0.5 MPa) | 302 N |
| Maximum piston speed | 200 mm/s |
| Type of cushioning | Rubber bumper |
| Piston rod end | Female thread |
| Female thread of rod end | M10 |
| Weight | 0.639 Kg |

## Dimensions





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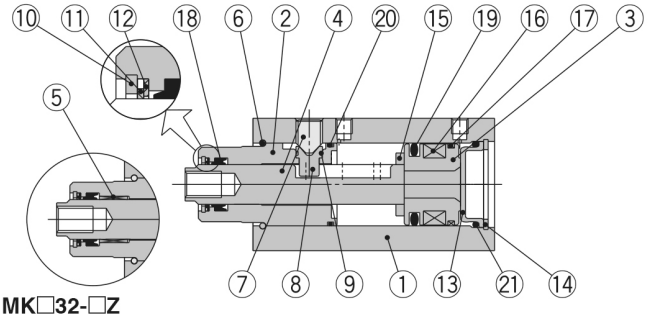
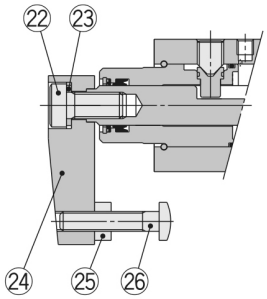
# Constructions

### New MK20 to 32

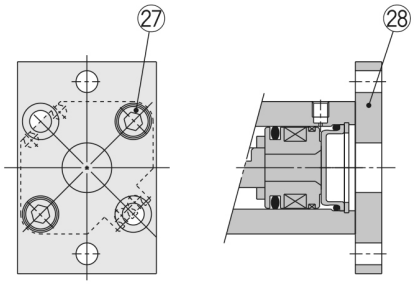



MK□32-□Z

### With arm (N)




### Head flange (G)




### Component Parts

| No. | Description | Material | Note | |
|---|---|---|---|---|
| 1 | **Cylinder tube** | Aluminum alloy | Hard anodised | |
| 2 | **Rod cover** | Aluminum alloy | Hard anodised | |
| 3 | **Piston** | Aluminum alloy | Chromated | |
| 4 | **Piston rod** | Stainless steel | ø20 to ø25 Nitriding | |
| | | Carbon steel | ø32 Heated, Nickel plated | |
| 5 | **Bushing** | Copper bearing material | ø32 only | |
| 6 | **Stop ring** | Stainless steel | | |
| 7 | **Hexagon socket head set screw** | Chromium molybdenum steel | Sharp end section: 90° | |
| 8 | **Guide pin** | Stainless steel | Nitriding | |
| 9 | **O-ring** | NBR | | |
| 10 | **Round R-type retaining ring** | Carbon tool steel | | |
| 11 | **Coil scraper** | Phosphor bronze | | |
| 12 | **Scraper pressure** | Stainless steel | | |
| 13 | **Head cover** | Rolled steel | Electroless nickel plated | |
| 14 | **C-type retaining ring** | Carbon tool steel | | |
| 15 | **Bumper** | Urethane | | |
| 16 | **Magnet** | — | | |
| 17 | **Wear ring** | Resin | | |
| 18 | **Rod seal** | NBR | | |
| 19 | **Piston seal** | NBR | | |
| 20 | **Gasket** | NBR | | |
| 21 | **O-ring** | NBR | | |
| 22 | **Hexagon socket head cap screw** | Chromium molybdenum steel | | |
| 23 | **Spring washer** | Hard steel | | |
| 24 | **Arm** | Rolled steel | | |
| 25 | **Hexagon nut** | Rolled steel | | |
| 26 | **Clamp bolt** | Chromium molybdenum steel | | |
| 27 | **Hexagon socket head cap screw** | Chromium molybdenum steel | Qty. | ø20, ø25: 2 pcs.<br>ø32: 4 pcs. |
| 28 | **Flange** | Rolled steel | | |





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## Additional information

| | |
|---|---|
| Catalogue | MK-A_EU.pdf |





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