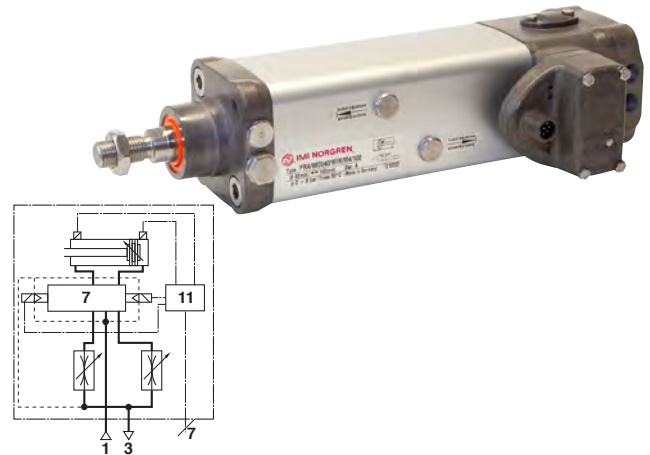


## PRA/882000/M, IVAC Clean Line cylinder Magnetic piston, double acting

- Ø 32 ... 100 mm
- Cylinders and mountings conform to ISO 15552
- Complete functional unit with LED display
- Central electrical connector, polarity-safe
- Integrated 5/2 or 5/3 valve
- Additional output ports (2 & 4)
- Integrated flow regulator for speed control
- Integrated reed or solid state switches
- Protection class IP67, suitable for food and beverage sector
- Energy efficient



### Technical features

#### Medium:

Compressed air, filtered, lubricated or non-lubricated  
 Particles size: Class 7, ISO 8573 – 1 (dated 2001)  
 Humidity and water content:  
 Air supply must be dry.  
 Corresponding of the application and working conditions the air must be dry enough to avoid condensate. The pressure dewpoint must be minimum 15° under the application and working conditions. Oil: Class 4, ISO 8573 – 1 (dated 2001)

#### Standard:

Based on ISO 15552  
 (length , mounting pitch and thread dimensions according to ISO 15552.  
 Some outside dimensions different to ISO 15552)

#### Operation:

Double acting, magnetic piston, adjustable cushioning

#### Operating pressure:

2 ... 8 bar (29 ... 116 psi)

#### Port size:

G1/8, G1/4, G3/8

#### Cylinder diameters:

32, 40, 50, 63, 80, 100 mm

#### Standard strokes:

See below

#### Non-standard strokes:

Available (25 ... 1000 mm)

#### Operating temperature:

-2 ... +70°C max. (+28 ... +158°F)

#### Supply voltage:

24 V d.c.

#### Multipole connection:

M12 x 1 male, 8 pin

#### Power consumption:

1 W max

#### Rating:

100 % E.D.

#### Protection class:

IP 67

#### Life expectation of the cylinder: \*1)

Stroke < 100 mm: 10 Mio. Cycles  
 Stroke > 100 mm: 5000 km

#### Life expectation of the solenoid valves: 50 Mio. Cycles

\*1) Life expectation based on laboratory conditions (more details upon request):

- Operating pressure: 8 bar
- Compressed air: ISO 8573-1, Class 7-4-4
- Ambient temperature: 20° C +/- 10° C
- Environment: Industrial plant, no contamination such as dust and/or moisture or similar
- Position: horizontal
- Side load: max. transverse load approx. 1,3% of the theoretical force at 6 bar

- Speed: 1.0 m/s for Ø 32 to 50 mm  
 0,7 m/s for Ø 63 to 100 mm
- Frequency: < 20 cycles / min (in/out)

#### Materials:

Profile barrel: anodised aluminium,  
 End covers: pressure diecast anodised aluminium  
 Piston rod: stainless steel, see page 2  
 Piston rod seals: PUR  
 Piston seals: PUR  
 O-rings: NBR

### Technical data

| Cylinder Ø (mm)                            | 32         | 40         | 50        | 63        | 80        | 100       |
|--|------------|------------|-----------|-----------|-----------|-----------|
| Port size                                  | G1/8       | G1/8       | G1/8      | G1/4      | G1/4      | G3/8      |
| Piston rod Ø (mm)                          | 12         | 16         | 20        | 20        | 25        | 25        |
| Piston rod thread                          | M10 x 1,25 | M12 x 1,25 | M16 x 1,5 | M16 x 1,5 | M20 x 1,5 | M20 x 1,5 |
| Cushion length (mm)                        | 11         | 14         | 14        | 19        | 19        | 26        |
| Theoretical thrusts at 6 bar outstroke (N) | 482        | 754        | 1178      | 1870      | 3016      | 4710      |
| Theoretical thrusts at 6 bar instroke (N)  | 414        | 633        | 990       | 1680      | 2722      | 4416      |
| Air consumption at 6 bar outstroke (l/cm)  | 0,056      | 0,088      | 0,137     | 0,218     | 0,35      | 0,55      |
| Air consumption at 6 bar instroke (l/cm)   | 0,048      | 0,074      | 0,114     | 0,195     | 0,32      | 0,51      |

## Standard strokes

| Cylinder Ø (mm) | Stroke length (mm) |    |    |     |     |     |     |     |     |     |     |
|-----------------|--------------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | 25                 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 320 | 400 | 500 |
| 32              | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |
| 40              | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |
| 50              | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |
| 63              | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |
| 80              | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |
| 100             | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |

## Cylinder variants

| Symbol | R | S | C | D | E | V | Model with magnetic piston | Description  | Dimensions Page |
|--------|---|---|---|---|---|---|----------------------------|--|-----------------|
|        | • | • | • | • | • | • | PRA/882000/MI              | Standard cylinder  | 7               |
|        | • | • | • | • | • | • | PRA/882000/W2              | Cylinder with special wiper/seal (suitable for appl. with cement, plaster (stucco), arizona sand, hoar-frost or ice) | 7               |
|        | • | • | • | • | • | • | PRA/882000/MU              | Cylinder with extended piston rod  | 7               |
|        | • | • | • | • | • | • | PRA/882000/MG              | Cylinder with piston rod bellow  | 8               |

For the cylinder models style C, D, E, S and V see options selector

## Options selector

|   |                |
|---|----------------|
| <b>Piston rod material</b>  | Substitute     |
| Stainless steel (martensitic); Standard wiper seal                      | R              |
| Stainless steel (austenitic); Standard wiper seal                       | S              |
| Hard chromium plated; Standard wiper seal                               | C              |
| Stainless steel (austenitic); hard chromium plated; Standard wiper seal | D              |
| Stainless steel (austenitic); Smooth wiper seal                         | V              |
| Stainless steel (austenitic); hard chromium plated; Smooth wiper seal   | E              |
| <b>Cylinder Ø (mm)</b>  | Substitute     |
| 032, 040, 050, 063, 080, 100  |                |
| <b>Variants (magnetic piston)</b>                                       | Substitute     |
| Standard  | MI             |
| Piston rod bellow   | MG             |
| Special wiper seal  | W2             |
| Extended piston rod,  | MU             |
| P*A/882***/MU/***/***/<br>/W6/ T  | Extension (mm) |

Note: This options selector explains only the cylinder variants. For combinations of cylinder variants consult our technical Service

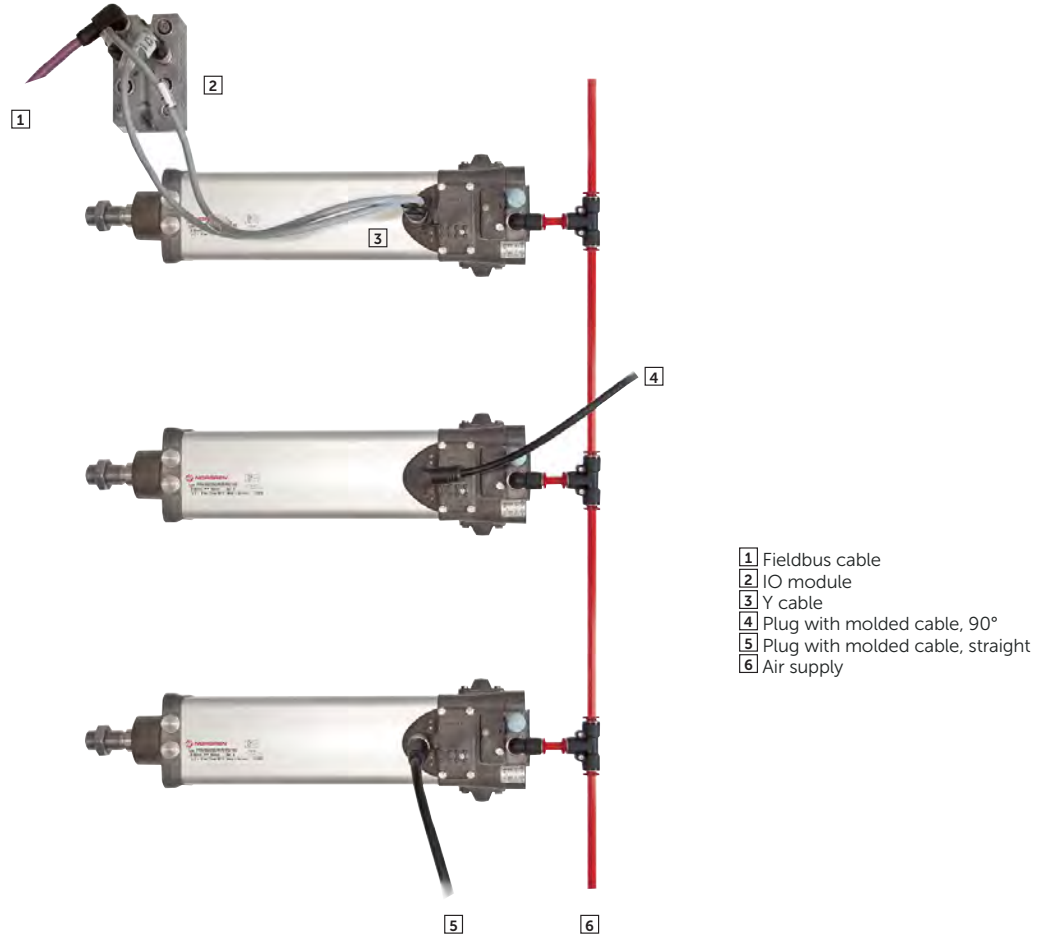
|   |            |
|---|------------|
| <b>Strokes (mm)</b>   | 1000 max.  |
| <b>Switch variants</b>  | Substitute |
| Without   | 0          |
| Adjustable Reed switch position                                       | 3*2)       |
| Adjustable solid state switch position                                | 4          |
| <b>Valve function *1)</b>   | Substitute |
| 5/2 way solenoid/spring, cylinder instroke without current            | R          |
|   |            |
| 5/2 way solenoid/spring, cylinder outstroke without current           | E          |
|   |            |
| 5/2 way solenoid operated, solenoid return, bistable                  | B          |
|   |            |
| 5/3 way solenoid operated, solenoid return, all ports blocked (APB)   | A          |
|   |            |
| 5/3 way solenoid operated, solenoid return, centre open exhaust (COE) | C          |
|   |            |

\*1) Version with pilot operated valves on request.

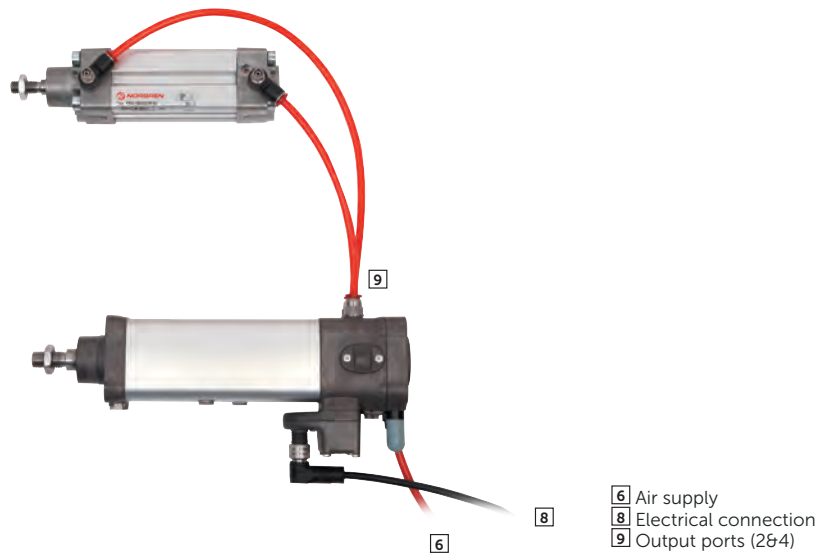
\*2) For Ø 40 ... 100 mm only

### Reduced Installation Time & Cost

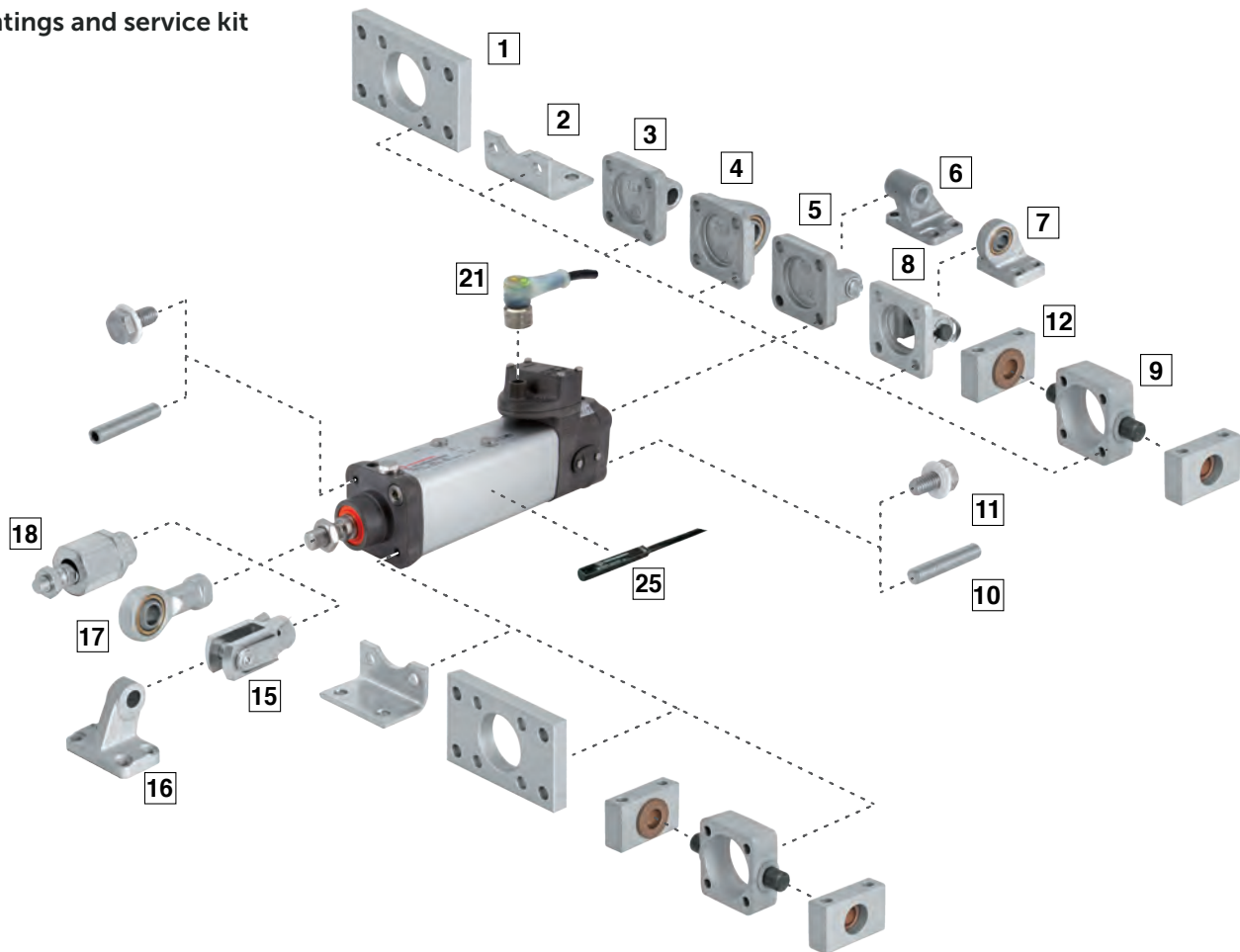
To connect the IVAC you simply run a single ring main to provide an air supply to each unit. There is no mounting of valve islands to the machine framework or inside a cabinet and there is no pipework to run around the machine to connect each valve to each actuator.



One of the advantages of the IVAC cylinders is to use the output ports (2 & 4) from the main valve to operate an additional cylinder.




















## Mountings and service kit





| Position | Style | Standard   | Corrosion protected  | Stainless steel   |
|----------|-------|--|--|---|
| 1        | B, G  | Clear anodised aluminium   | Clear anodised aluminium. Screws: A2   | X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2  |
| 2        | C     | Galvanized steel (ø 32 ... 63 mm)<br>Painted steel (ø 80 & 100 mm)                     | —  | X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2  |
| 3        | R     | Diecast aluminium  | Black corrosion protected diecast aluminium. Certified for the food industry. Screws: A2   | —   |
| 4        | UR    | Galvanized aluminium<br>Inner ring: steel<br>Outer ring: brass                         | Black corrosion protected diecast aluminium<br>Certified for the food industry<br>Inner ring: stainless Steel (austenitic)<br>Outer ring: nickel plated hardened steel             | —   |
| 5        | D     | Diecast aluminium<br>Bolt: galvanized steel (martensitic)<br>Circlip: galvanized steel | Black corrosion protected diecast aluminium<br>Certified for the food industry<br>Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303)<br>Circlip: Stainless steel (martensitic). Screws: A2 | X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2<br>Bolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303)  |
| 6        | SW    | Diecast aluminium  | Black corrosion protected diecast aluminium<br>Certified for the food industry   | X 6 Cr Ni 18 9 (1.4308; AISI 304)   |
| 7        | US    | Galvanized aluminium. Inner ring: steel<br>Outer ring: brass                           | —  | —   |
| 8        | D2    | Painted cast iron. Bolt: stainless steel (martensitic)<br>Circlip: galvanized steel    | —  | —   |
| 9        | FH    | Cast iron  | —  | —   |
| 10       | A     | Galvanized steel   | —  | —   |
| 11       | Screw | —  | —  | X 10 Cr Ni S 18 9 (1.4305, AISI 303)  |
| 12       | S     | Clear anodised aluminium<br>Bearing: brass   | —  | —   |
| 15       | F     | Galvanized steel<br>Bolt: galvanized steel<br>Circlip: Galvanized steel                | Nickel plated steel<br>Circlip: X 10 Cr Ni S 18 9 (1.4305, AISI 303)<br>Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303)   | X 10 Cr Ni S 18 9 (1.4305; AISI 303)<br>Bolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303)<br>Eyebolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303) |
| 16       | SS    | Painted cast iron  | —  | —   |
| 17       | UF    | Galvanized steel. Inner ring: steel<br>Outer ring: brass                               | Nickel plated steel. Inner ring: stainless steel (austenitic)<br>Outer ring: nickel plated hardened steel.   | X 10 Cr Ni S 18 9 (1.4305; AISI 303), Inner ring X 105 Cr Co Mo 18-2 (1.4528), Outer ring X 5 Cr Ni 18 10 (1.4301; AISI 304)        |
| 18       | AK    | Galvanized steel   | —  | —   |


## Mountings

| Model                      | A   | AK  | B, G  | C   | D   | D2   | F   | FH  | R   |
|----------------------------|---|---|---|---|---|--|---|---|---|
|                            |    |    |    |    |    |    |    |    |  |
| Cyl. Ø                     | <b>10</b><br>Page 9   | <b>18</b><br>Page 9   | <b>1</b><br>Page 9  | <b>2</b><br>Page 9  | <b>5</b><br>Page 10   | <b>8</b><br>Page 10  | <b>15</b><br>Page 10  | <b>9</b><br>Page 10   | <b>3</b><br>Page 11   |
| 32                         | QM/8032/35  | QM/8025/38  | QA/8032/22  | QA/8032/21  | QA/8032/23  | QA/8032/42   | QM/8025/25  | QA/8032/34  | QA/8032/27  |
| 40                         | QM/8032/35  | QM/8040/38  | QA/8040/22  | QA/8040/21  | QA/8040/23  | QA/8040/42   | QM/8040/25  | QA/8040/34  | QA/8040/27  |
| 50                         | QM/8050/35  | QM/8050/38  | QA/8050/22  | QA/8050/21  | QA/8050/23  | QA/8050/42   | QM/8050/25  | QA/8050/34  | QA/8050/27  |
| 63                         | QM/8050/35  | QM/8050/38  | QA/8063/22  | QA/8063/21  | QA/8063/23  | QA/8063/42   | QM/8050/25  | QA/8063/34  | QA/8063/27  |
| 80                         | QM/8080/35  | QM/8080/38  | QA/8080/22  | QA/8080/21  | QA/8080/23  | QA/8080/42   | QM/8080/25  | QA/8080/34  | QA/8080/27  |
| 100                        | QM/8080/35  | QM/8080/38  | QA/8100/22  | QA/8100/21  | QA/8100/23  | QA/8100/42   | QM/8080/25  | QA/8100/34  | QA/8100/27  |
| <b>Corrosion protected</b> |   |   |   |   |   |  |   |   |   |
| 32                         | –   | –   | PVQA/8032/22  | –   | PVQA/8032/23  | –  | PVQM/8025/25  | –   | PVQA/8032/27  |
| 40                         | –   | –   | PVQA/8040/22  | –   | PVQA/8040/23  | –  | PVQM/8040/25  | –   | PVQA/8040/27  |
| 50                         | –   | –   | PVQA/8050/22  | –   | PVQA/8050/23  | –  | PVQM/8050/25  | –   | PVQA/8050/27  |
| 63                         | –   | –   | PVQA/8063/22  | –   | PVQA/8063/23  | –  | PVQM/8050/25  | –   | PVQA/8063/27  |
| 80                         | –   | –   | PVQA/8080/22  | –   | PVQA/8080/23  | –  | PVQM/8080/25  | –   | PVQA/8080/27  |
| 100                        | –   | –   | PVQA/8100/22  | –   | PVQA/8100/23  | –  | PVQM/8080/25  | –   | PVQA/8100/27  |
| <b>Stainless steel</b>     |   |   |   |   |   |  |   |   |   |
| 32                         | –   | –   | KQA/8032/22   | KQA/8032/21   | KQA/8032/23   | –  | KQM/55433/25  | –   | –   |
| 40                         | –   | –   | KQA/8040/22   | KQA/8040/21   | KQA/8040/23   | –  | KQM/55441/25  | –   | –   |
| 50                         | –   | –   | KQA/8050/22   | KQA/8050/21   | KQA/8050/23   | –  | KQM/55451/25  | –   | –   |
| 63                         | –   | –   | KQA/8063/22   | KQA/8063/21   | KQA/8063/23   | –  | KQM/55451/25  | –   | –   |
| 80                         | –   | –   | KQA/8080/22   | KQA/8080/21   | KQA/8080/23   | –  | KQA/8080/25   | –   | –   |
| 100                        | –   | –   | KQA/8100/22   | KQA/8100/21   | KQA/8100/23   | –  | KQA/8080/25   | –   | –   |
|                            | S   | SS  | SW  | UF  | UR  | US   | Cover screws  | Magnetically operated switches  |   |
|                            |  |  |  |  |  |  |  |  |   |
| Cyl. Ø                     | <b>12</b><br>Page 11  | <b>16</b><br>Page 12  | <b>6</b><br>Page 11   | <b>17</b><br>Page 11  | <b>4</b><br>Page 12   | <b>7</b><br>Page 12  | <b>11</b><br>Page 12  | <b>25</b><br>Page 13  |   |
| 32                         | QA/8032/41  | M/P19931  | M/P19493  | QM/8025/32  | QA/8032/33  | M/P40310   |   |   |   |
| 40                         | QA/8040/41  | M/P19932  | M/P19494  | QM/8040/32  | QA/8040/33  | M/P40311   |   |   |   |
| 50                         | QA/8040/41  | M/P19933  | M/P19495  | QM/8050/32  | QA/8050/33  | M/P40312   |   |   |   |
| 63                         | QA/8063/41  | M/P19934  | M/P19496  | QM/8050/32  | QA/8063/33  | M/P40313   |   |   |   |
| 80                         | QA/8063/41  | M/P19935  | M/P19497  | QM/8080/32  | QA/8080/33  | M/P40314   |   |   |   |
| 100                        | QA/8100/41  | M/P19936  | M/P19498  | QM/8080/32  | QA/8100/33  | M/P40315   |   |   |   |
| <b>Corrosion protected</b> |   |   |   |   |   |  |   |   |   |
| 32                         | –   | –   | M/P40459  | PVQM/8025/32  | PVQA/8032/33  | –  | –   | –   |   |
| 40                         | –   | –   | M/P40460  | PVQM/8040/32  | PVQA/8040/33  | –  | –   | –   |   |
| 50                         | –   | –   | M/P40461  | PVQM/8050/32  | PVQA/8050/33  | –  | –   | –   |   |
| 63                         | –   | –   | M/P40462  | PVQM/8050/32  | PVQA/8063/33  | –  | –   | –   |   |
| 80                         | –   | –   | M/P40463  | PVQM/8080/32  | PVQA/8080/33  | –  | –   | –   |   |
| 100                        | –   | –   | M/P40464  | PVQM/8080/32  | PVQA/8100/33  | –  | –   | –   |   |
| <b>Stainless steel</b>     |   |   |   |   |   |  |   |   |   |
| 32                         | –   | –   | M/P72288  | KQM/8032/32   | –   | –  | PVQA/882032/88  |   |   |
| 40                         | –   | –   | M/P72289  | KQM/8040/32   | –   | –  | PVQA/882032/88  |   |   |
| 50                         | –   | –   | M/P72290  | KQM/8050/32   | –   | –  | PVQA/882050/88  |   |   |
| 63                         | –   | –   | M/P72291  | KQM/8050/32   | –   | –  | PVQA/882050/88  |   |   |
| 80                         | –   | –   | M/P72292  | KQM/8080/32   | –   | –  | PVQA/882080/88  |   |   |
| 100                        | –   | –   | M/P72293  | KQM/8080/32   | –   | –  | PVQA/882080/88  |   |   |

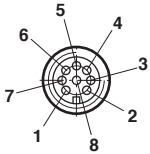
### M12 cables

| Cable length | Plug with moulded cable IP 67   | Y-cable, M12 female 8 pin, 2 x M12 male 4 pin IP67                                |
|--------------|---|---|
| (m)          |  |  |
|              | <b>21</b>   | <b>21</b>   |
| 2            | M/P74581/2 (straight)   | M/P74589 (0,45 m)   |
| 5            | M/P74581/5 (straight)   |   |
| 10           | M/P74581/10 (straight)  |   |
| 2            | M/P74582/2 (90°)  |   |
| 5            | M/P74582/5 (90°)  |   |
| 10           | M/P74582/10 (90°)   |   |

### Service kit

| Service Kit  |                |
|--|----------------|
|  |                |
| Cyl. Ø   |                |
| 32   | PRQA/882032/00 |
| 40   | PRQA/882040/00 |
| 50   | PRQA/882050/00 |
| 63   | PRQA/882063/00 |
| 80   | PRQA/882080/00 |
| 100  | PRQA/882100/00 |

### Wiring diagram for M12 male connector

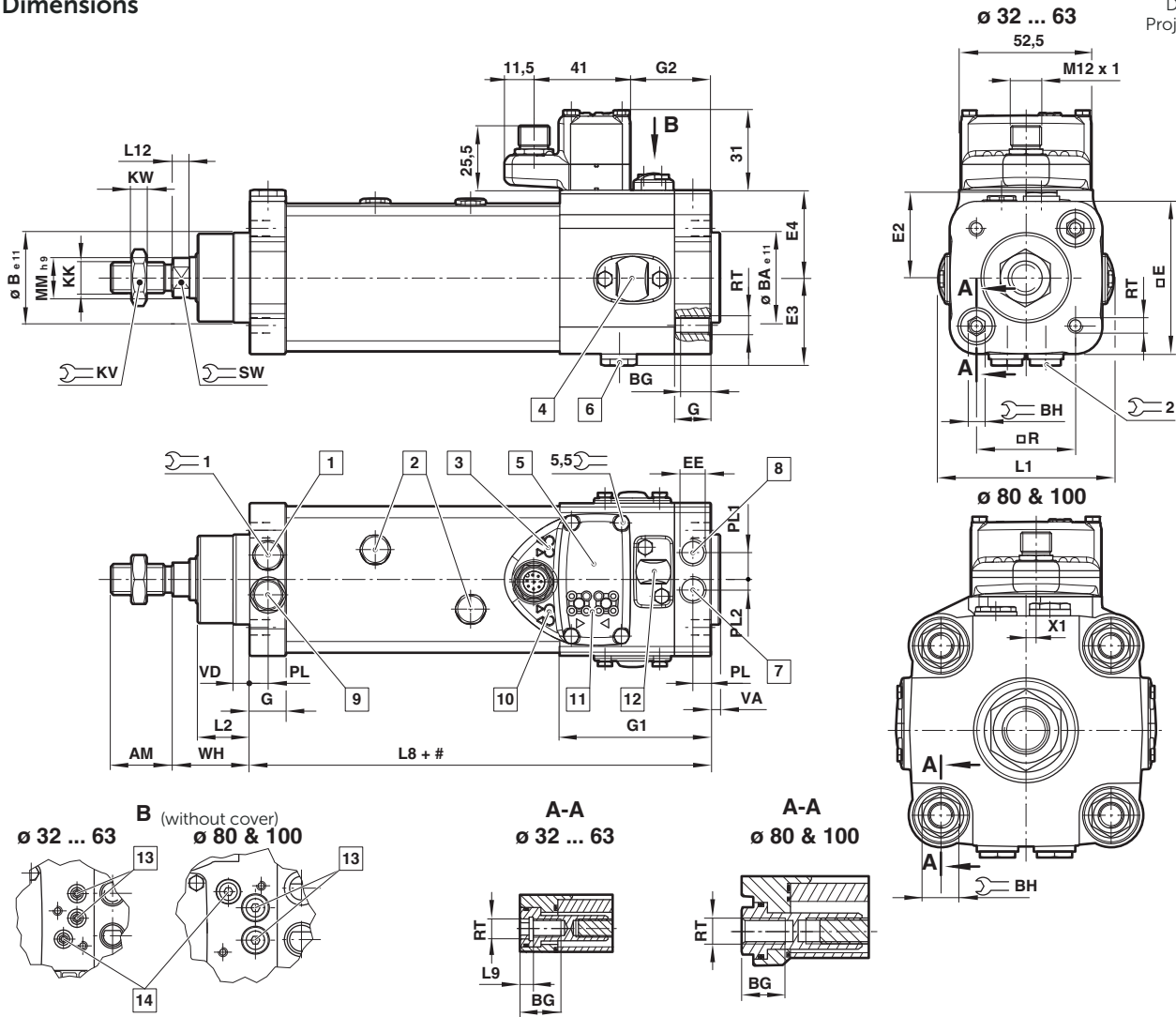


| Valves | Wiring diagram for connector cable M/P74581/, M/P74582/. |        |
|--------|--|--------|
| Pin 1  | Not used   | White  |
| Pin 2  | Solenoid 2 (instroke)                                    | Brown  |
| Pin 3  | 0 V  | Green  |
| Pin 4  | Solenoid 1 (outstroke)                                   | Yellow |

| Switches | Wiring diagram for connector cable M/P74581/, M/P74582/. |      |
|----------|--|------|
| Pin 5    | + 24 V d.c.  | Grey |
| Pin 6    | Switch 2 (rear end cover)                                | Pink |
| Pin 7    | 0 V  | Blue |
| Pin 8    | Switch 1 (front end cover)                               | Red  |

### Dimensions

Dimensions in mm  
Projection/First angle



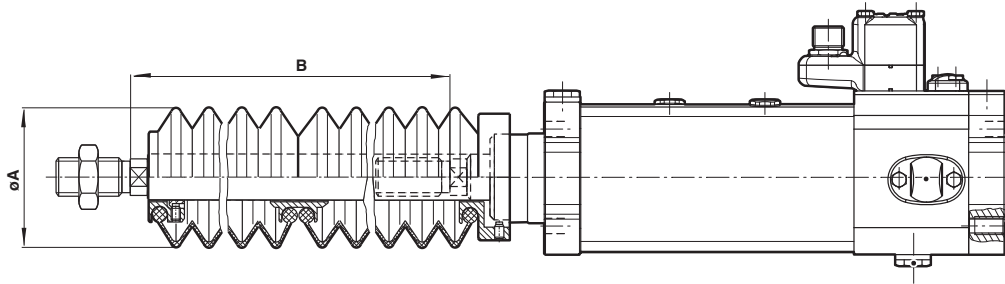
- |   |  |  |
|---|--|--|
| <p># Stroke</p> <ul style="list-style-type: none"> <li>1 Cushion adjustment front end cover</li> <li>2 Magnetically operated switches (AF 11)</li> <li>3 LED - magnetically operated switches</li> <li>4 Main valve</li> <li>5 Pilot block</li> </ul> | <ul style="list-style-type: none"> <li>6 Output ports (2&amp;4)</li> <li>7 Air supply</li> <li>8 Exhaust position, do not obstruct</li> <li>9 Without function - do not use</li> <li>10 LED - pilot valve</li> <li>11 Manual override</li> </ul> | <ul style="list-style-type: none"> <li>12 Cover for cushion and Speed control adjustment</li> <li>13 Speed control adjustment</li> <li>14 Cushion adjustment rear end cover</li> </ul> |
|---|--|--|

| Ø   | AM         | Ø B<br>e11 | Ø BA<br>e11 | BG  | BH   | □ E  | E2   | E3   | E4   | EE   | G    | G1   | G2   | KK       | KW         | L1           | L2                  | L8  | L9 | L12 |
|-----|------------|------------|-------------|-----|------|------|------|------|------|------|------|------|------|----------|------------|--------------|---------------------|-----|----|-----|
| 32  | 22         | 30         | 30          | 16  | 6    | 53   | 31   | 31   | 32   | G1/8 | 14   | 59   | 30,5 | M10x1,25 | 5          | 68,5         | 20                  | 94  | 4  | 4,5 |
| 40  | 24         | 35         | 35          | 16  | 6    | 60   | 34,5 | 34   | 34   | G1/8 | 14   | 59   | 30,5 | M12x1,25 | 6          | 68,5         | 21                  | 105 | 4  | 6,5 |
| 50  | 32         | 40         | 40          | 16  | 8    | 71,5 | 40   | 39   | 39   | G1/8 | 14   | 63   | 34,5 | M16x1,5  | 8          | 92,5         | 28                  | 106 | 5  | 6,5 |
| 63  | 32         | 45         | 45          | 16  | 8    | 82   | 46   | 45,5 | 45,5 | G1/4 | 19   | 66   | 38   | M16x1,5  | 8          | 91,5         | 28                  | 121 | 5  | 6,5 |
| 80  | 40         | 45         | 45          | 17  | 16   | 99   | 54   | 54   | 57   | G1/4 | 19   | 74,5 | 46,5 | M20x1,5  | 10         | 110          | 35                  | 128 | -  | 7,5 |
| 100 | 40         | 55         | 55          | 17  | 16   | 119  | 65   | 65   | 65   | G3/8 | 24,5 | 81   | 53   | M20x1,5  | 10         | 144,5        | 38                  | 138 | -  | 10  |
| Ø   | Ø MM<br>h9 | PL         | PL1         | PL2 | □ R  | RT   | VA   | VD   | WH   | X1   | KV   | SW   | 1    | 2        | at 0<br>mm | per 25<br>mm | Model               |     |    |     |
| 32  | 12         | 7          | 10,5        | 4   | 32,5 | M 6  | 3    | 6    | 26   | 0    | 17   | 10   | 11   | 12       | 0,66 kg    | 0,07 kg      | PRA/882032/MI+/M-/* |     |    |     |
| 40  | 16         | 7          | 10,5        | 4   | 38   | M 6  | 3,5  | 6    | 30   | 0    | 19   | 13   | 11   | 12       | 1,03 kg    | 0,11 kg      | PRA/882040/MI+/M-/* |     |    |     |
| 50  | 20         | 7          | 12,5        | 4   | 46,5 | M 8  | 3,5  | 6    | 37   | 1,5  | 24   | 17   | 13   | 12       | 1,58 kg    | 0,18 kg      | PRA/882050/MI+/M-/* |     |    |     |
| 63  | 20         | 9,5        | 14,5        | 6   | 56,5 | M 8  | 4    | 6    | 37   | 0    | 24   | 17   | 13   | 15       | 2,42 kg    | 0,19 kg      | PRA/882063/MI+/M-/* |     |    |     |
| 80  | 25         | 9,5        | 14          | 6   | 72   | M 10 | 4    | 6    | 46   | 6    | 30   | 22   | 17   | 15       | 4,12 kg    | 0,29 kg      | PRA/882080/MI+/M-/* |     |    |     |
| 100 | 25         | 12         | 16,5        | 8,5 | 89   | M 10 | 4    | 6    | 51   | 6,5  | 30   | 22   | 17   | 19       | 6,34 kg    | 0,35 kg      | PRA/882100/MI+/M-/* |     |    |     |

\* Please insert standard stroke length  
 + Please insert valve function  
 - Please insert switch variants (Reed switches for Ø 40 ... 100 mm only)

**P.A/882000/MG./M./.; Cylinder with piston rod bellow**

Dimensions in mm  
Projection/First angle



| Cyl.<br>$\varnothing$ | $\varnothing A$ | Stroke max<br>per bellow | Piston rod extention B |                        | Model                |
|-----------------------|-----------------|--------------------------|------------------------|------------------------|----------------------|
|                       |                 |                          | for first<br>bellow    | for further<br>bellows |                      |
| 32                    | 40              | 60                       | 30                     | 25                     | P#/A/882032/MG+/M./* |
| 40                    | 63              | 145                      | 50                     | 32                     | P#/A/882040/MG+/M./* |
| 50                    | 63              | 145                      | 40                     | 32                     | P#/A/882050/MG+/M./* |
| 63                    | 63              | 145                      | 40                     | 32                     | P#/A/882063/MG+/M./* |
| 80                    | 80              | 250                      | 50                     | 45                     | P#/A/882080/MG+/M./* |
| 100                   | 80              | 250                      | 50                     | 45                     | P#/A/882100/MG+/M./* |

\* Standard stroke length

# Piston rod material

+ Valve function

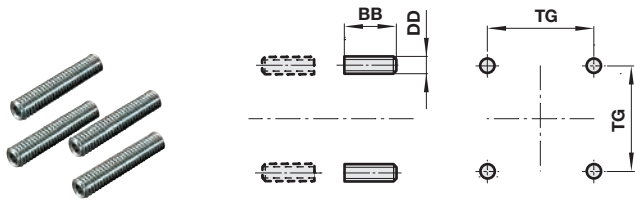
. Magnetic switch (Reed switches for  $\varnothing 40 \dots 100$  mm only)



## Mountings

### Front or rear stud mounting A

Conforms to ISO 15552, type MX1

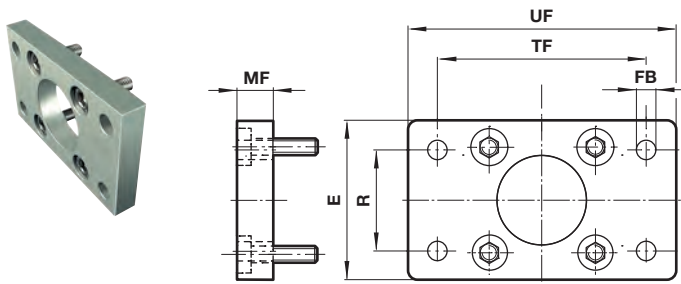


#### Standard

| Ø      | BB | DD  | TG        | kg   | Model (A)  |
|--------|----|-----|-----------|------|------------|
| 32/40  | 17 | M6  | 32,5/38   | 0,02 | QM/8032/35 |
| 50/63  | 23 | M8  | 46,5/56,5 | 0,05 | QM/8050/35 |
| 80/100 | 28 | M10 | 72/89     | 0,08 | QM/8080/35 |

### Front flange B, G

Conforms to ISO 15552, type MF1 and MF2

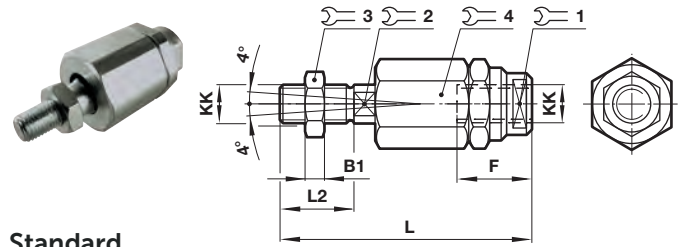


#### Standard

| Ø                                  | E   | Ø FB | MF | R  | TF  | UF  | kg   | Model (B, G) |
|------------------------------------|-----|------|----|----|-----|-----|------|--------------|
| 32                                 | 50  | 7    | 10 | 32 | 64  | 80  | 0,25 | QA/8032/22   |
| 40                                 | 55  | 9    | 10 | 36 | 72  | 90  | 0,35 | QA/8040/22   |
| 50                                 | 65  | 9    | 12 | 45 | 90  | 110 | 0,70 | QA/8050/22   |
| 63                                 | 75  | 9    | 12 | 50 | 100 | 125 | 0,80 | QA/8063/22   |
| 80                                 | 100 | 12   | 16 | 63 | 126 | 154 | 1,35 | QA/8080/22   |
| 100                                | 120 | 14   | 16 | 75 | 150 | 186 | 2,20 | QA/8100/22   |
| <b>Corrosion protected version</b> |     |      |    |    |     |     |      |              |
| 32                                 | 50  | 7    | 10 | 32 | 64  | 80  | 0,25 | PVQA/8032/22 |
| 40                                 | 55  | 9    | 10 | 36 | 72  | 90  | 0,35 | PVQA/8040/22 |
| 50                                 | 65  | 9    | 12 | 45 | 90  | 110 | 0,7  | PVQA/8050/22 |
| 63                                 | 75  | 9    | 12 | 50 | 100 | 125 | 0,8  | PVQA/8063/22 |
| 80                                 | 100 | 12   | 16 | 63 | 126 | 154 | 1,35 | PVQA/8080/22 |
| 100                                | 120 | 14   | 16 | 75 | 150 | 186 | 2,2  | PVQA/8100/22 |
| <b>Stainless steel</b>             |     |      |    |    |     |     |      |              |
| 32                                 | 50  | 7    | 10 | 32 | 64  | 80  | 0,26 | KQA/8032/22  |
| 40                                 | 55  | 9    | 10 | 36 | 72  | 90  | 0,31 | KQA/8040/22  |
| 50                                 | 65  | 9    | 12 | 45 | 90  | 110 | 0,56 | KQA/8050/22  |
| 63                                 | 75  | 9    | 12 | 50 | 100 | 125 | 0,73 | KQA/8063/22  |
| 80                                 | 100 | 12   | 16 | 63 | 126 | 154 | 1,73 | KQA/8080/22  |
| 100                                | 120 | 14   | 16 | 75 | 150 | 186 | 2,51 | KQA/8100/22  |

### Piston rod swivel AK

Dimensions in mm  
Projection/First angle

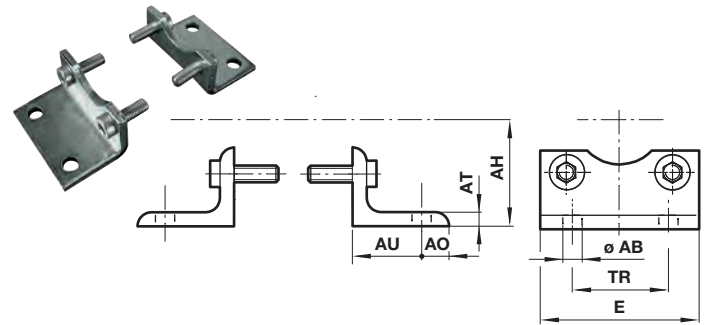


#### Standard

| Ø      | KK       | B1 | F  | L   | L2 | 1  | 2  | 3  | 4  | kg   | Model (AK) |
|--------|----------|----|----|-----|----|----|----|----|----|------|------------|
| 32     | M10x1,25 | 5  | 26 | 73  | 20 | 19 | 12 | 17 | 30 | 0,20 | QM/8025/38 |
| 40     | M12x1,25 | 6  | 26 | 77  | 24 | 19 | 12 | 19 | 30 | 0,20 | QM/8040/38 |
| 50/63  | M16x1,5  | 8  | 34 | 106 | 32 | 30 | 19 | 24 | 42 | 0,65 | QM/8050/38 |
| 80/100 | M20x1,5  | 10 | 42 | 122 | 40 | 30 | 19 | 30 | 42 | 0,72 | QM/8080/38 |

### Foot mounting C

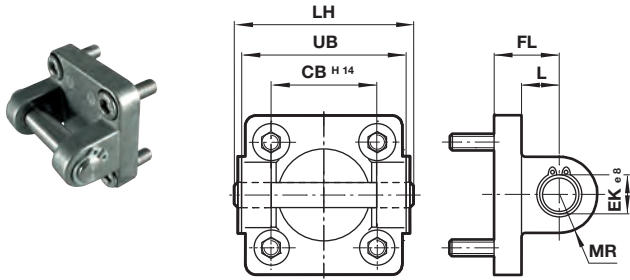
Conforms to ISO 15552, type MS1



#### Standard

| Ø                      | Ø AB | AH | AO | AT | AU | E   | TR | kg   | Model (C)   |
|------------------------|------|----|----|----|----|-----|----|------|-------------|
| 32                     | 7    | 32 | 8  | 4  | 24 | 48  | 32 | 0,15 | QA/8032/21  |
| 40                     | 10   | 36 | 9  | 4  | 28 | 53  | 36 | 0,18 | QA/8040/21  |
| 50                     | 10   | 45 | 10 | 5  | 32 | 64  | 45 | 0,30 | QA/8050/21  |
| 63                     | 10   | 50 | 12 | 5  | 32 | 74  | 50 | 0,39 | QA/8063/21  |
| 80                     | 12   | 63 | 19 | 5  | 41 | 98  | 63 | 0,80 | QA/8080/21  |
| 100                    | 14   | 71 | 19 | 5  | 41 | 115 | 75 | 0,95 | QA/8100/21  |
| <b>Stainless steel</b> |      |    |    |    |    |     |    |      |             |
| 32                     | 7    | 32 | 11 | 4  | 24 | 48  | 32 | 0,16 | KQA/8032/21 |
| 40                     | 9    | 36 | 12 | 5  | 28 | 53  | 36 | 0,19 | KQA/8040/21 |
| 50                     | 9    | 45 | 13 | 5  | 32 | 64  | 45 | 0,32 | KQA/8050/21 |
| 63                     | 9    | 50 | 13 | 5  | 32 | 74  | 50 | 0,41 | KQA/8063/21 |
| 80                     | 12   | 63 | 19 | 6  | 41 | 98  | 63 | 0,83 | KQA/8080/21 |
| 100                    | 14   | 71 | 19 | 6  | 41 | 115 | 75 | 0,98 | KQA/8100/21 |

**Rear clevis D**  
Conforms to ISO 15552, type MP2

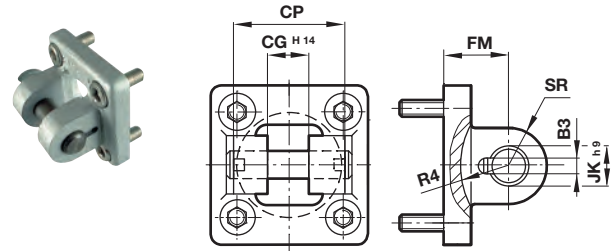


**Standard**

| Ø                                  | CB H14 | Ø EK e8 | FL | L  | LH  | MR | UB  | kg   | Model (D)    |
|------------------------------------|--------|---------|----|----|-----|----|-----|------|--------------|
| 32                                 | 26     | 10      | 22 | 13 | 52  | 9  | 45  | 0,11 | QA/8032/23   |
| 40                                 | 28     | 12      | 25 | 16 | 60  | 12 | 52  | 0,16 | QA/8040/23   |
| 50                                 | 32     | 12      | 27 | 17 | 68  | 12 | 60  | 0,22 | QA/8050/23   |
| 63                                 | 40     | 16      | 32 | 22 | 79  | 15 | 70  | 0,34 | QA/8063/23   |
| 80                                 | 50     | 16      | 36 | 22 | 99  | 15 | 90  | 0,54 | QA/8080/23   |
| 100                                | 60     | 20      | 41 | 27 | 119 | 20 | 110 | 0,90 | QA/8100/23   |
| <b>Corrosion protected version</b> |        |         |    |    |     |    |     |      |              |
| 32                                 | 26     | 10      | 22 | 13 | 52  | 9  | 45  | 0,11 | PVQA/8032/23 |
| 40                                 | 28     | 12      | 25 | 16 | 60  | 12 | 52  | 0,16 | PVQA/8040/23 |
| 50                                 | 32     | 12      | 27 | 17 | 68  | 12 | 60  | 0,22 | PVQA/8050/23 |
| 63                                 | 40     | 16      | 32 | 22 | 79  | 15 | 70  | 0,34 | PVQA/8063/23 |
| 80                                 | 50     | 16      | 36 | 22 | 99  | 15 | 90  | 0,54 | PVQA/8080/23 |
| 100                                | 60     | 20      | 41 | 27 | 119 | 20 | 110 | 0,9  | PVQA/8100/23 |
| <b>Stainless steel</b>             |        |         |    |    |     |    |     |      |              |
| 32                                 | 26     | 10      | 22 | 13 | 52  | 9  | 45  | 0,11 | KQA/8032/23  |
| 40                                 | 28     | 12      | 25 | 16 | 60  | 12 | 52  | 0,16 | KQA/8040/23  |
| 50                                 | 32     | 12      | 27 | 17 | 68  | 12 | 60  | 0,22 | KQA/8050/23  |
| 63                                 | 40     | 16      | 32 | 22 | 79  | 15 | 70  | 0,34 | KQA/8063/23  |
| 80                                 | 50     | 16      | 36 | 22 | 99  | 15 | 90  | 0,54 | KQA/8080/23  |
| 100                                | 60     | 20      | 41 | 27 | 119 | 20 | 110 | 0,9  | KQA/8100/23  |

**Rear clevis D2**  
Conforms to ISO 15552, type AB6

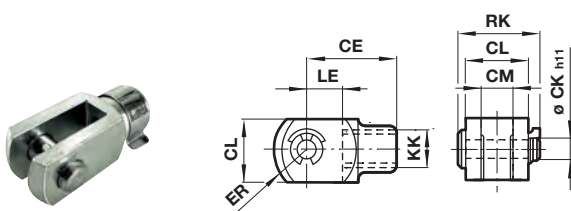
Dimensions in mm  
Projection/First angle



**Standard**

| Ø   | B1 H14 | B2 | B3  | Ø EK h9 | FL | R1   | R2 | kg   | Model (D2) |
|-----|--------|----|-----|---------|----|------|----|------|------------|
| 32  | 14     | 34 | 3,3 | 10      | 22 | 11   | 17 | 0,20 | QA/8032/42 |
| 40  | 16     | 40 | 4,3 | 12      | 25 | 12   | 20 | 0,23 | QA/8040/42 |
| 50  | 21     | 45 | 4,3 | 16      | 27 | 14,5 | 22 | 0,36 | QA/8050/42 |
| 63  | 21     | 51 | 4,3 | 16      | 32 | 18   | 25 | 0,55 | QA/8063/42 |
| 80  | 25     | 65 | 4,3 | 20      | 36 | 22   | 30 | 0,90 | QA/8080/42 |
| 100 | 25     | 75 | 4,3 | 20      | 41 | 22   | 32 | 1,45 | QA/8100/42 |

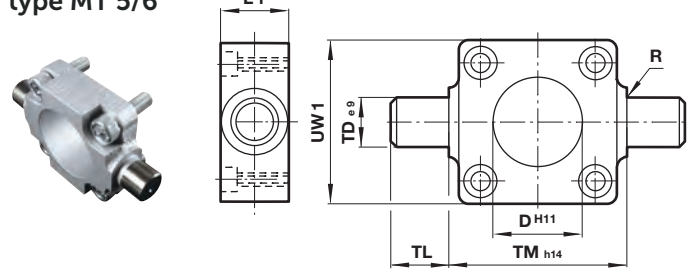
**Piston rod clevis F**  
Conforms to DIN ISO 8140



**Standard**

| Ø                                  | KK       | CE | ØCKh11 | CL | CM | ER | LE | RK   | kg   | Model (F)    |
|------------------------------------|----------|----|--------|----|----|----|----|------|------|--------------|
| 32                                 | M10x1,25 | 40 | 10     | 20 | 10 | 16 | 20 | 28   | 0,09 | QM/8025/25   |
| 40                                 | M12x1,25 | 48 | 12     | 24 | 12 | 19 | 24 | 32   | 0,13 | QM/8040/25   |
| 50/63                              | M16x1,5  | 64 | 16     | 32 | 16 | 25 | 32 | 41,5 | 0,33 | QM/8050/25   |
| 80/100                             | M20x1,5  | 80 | 20     | 40 | 20 | 32 | 40 | 50   | 0,67 | QM/8080/25   |
| <b>Corrosion protected version</b> |          |    |        |    |    |    |    |      |      |              |
| 32                                 | M10x1,25 | 40 | 10     | 20 | 10 | 16 | 20 | 28   | 0,09 | PVQM/8032/25 |
| 40                                 | M12x1,25 | 48 | 12     | 24 | 12 | 19 | 24 | 32   | 0,13 | PVQM/8040/25 |
| 50/63                              | M16x1,5  | 64 | 16     | 32 | 16 | 25 | 32 | 41,5 | 0,33 | PVQM/8050/25 |
| 80/100                             | M20x1,5  | 80 | 20     | 40 | 20 | 32 | 40 | 50   | 0,67 | PVQM/8080/25 |
| <b>Stainless steel</b>             |          |    |        |    |    |    |    |      |      |              |
| 32                                 | M10x1,25 | 40 | 10     | 20 | 10 | 16 | 20 | 28   | 0,09 | KQM/55433/25 |
| 40                                 | M12x1,25 | 48 | 12     | 24 | 12 | 19 | 24 | 32   | 0,13 | KQM/55441/25 |
| 50/63                              | M16x1,5  | 64 | 16     | 32 | 16 | 25 | 32 | 41,5 | 0,33 | KQM/55451/25 |
| 80/100                             | M20x1,5  | 80 | 20     | 40 | 20 | 32 | 40 | 50   | 0,67 | KQM/8080/25  |

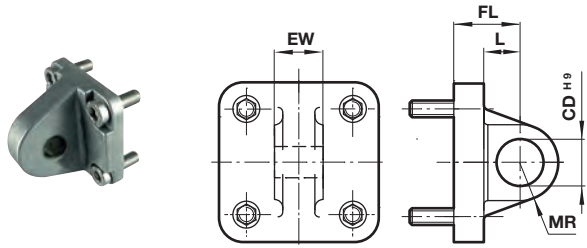
**Front or rear detachable trunnion FH**  
Conforms to VDMA 24562 part 2,  
type MT 5/6



**Standard**

| Ø   | Ø D h11 | L1 | R   | Ø TDe9 | TL | TMh14 | UW1 | kg   | Model (FH) |
|-----|---------|----|-----|--------|----|-------|-----|------|------------|
| 32  | 30      | 16 | 1   | 12     | 12 | 50    | 45  | 0,20 | QA/8032/34 |
| 40  | 35      | 20 | 1,6 | 16     | 16 | 63    | 55  | 0,38 | QA/8040/34 |
| 50  | 40      | 24 | 1,6 | 16     | 16 | 75    | 65  | 0,60 | QA/8050/34 |
| 63  | 45      | 24 | 1,6 | 20     | 20 | 90    | 75  | 1,10 | QA/8063/34 |
| 80  | 45      | 28 | 1,6 | 20     | 20 | 110   | 100 | 1,90 | QA/8080/34 |
| 100 | 55      | 38 | 2   | 25     | 25 | 132   | 120 | 3,50 | QA/8100/34 |

**Rear eye R**  
Conforms to ISO 15552, type MP4

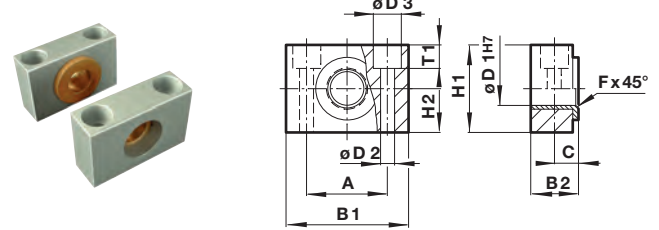


**Standard**

| Ø                                  | Ø CDH9 | EW   | FL | L  | MR | kg   | Model (R)    |
|------------------------------------|--------|------|----|----|----|------|--------------|
| 32                                 | 10     | 25,8 | 22 | 13 | 9  | 0,09 | QA/8032/27   |
| 40                                 | 12     | 27,8 | 25 | 16 | 12 | 0,11 | QA/8040/27   |
| 50                                 | 12     | 31,7 | 27 | 17 | 12 | 0,17 | QA/8050/27   |
| 63                                 | 16     | 39,7 | 32 | 22 | 15 | 0,24 | QA/8063/27   |
| 80                                 | 16     | 49,7 | 36 | 22 | 15 | 0,37 | QA/8080/27   |
| 100                                | 20     | 59,7 | 41 | 27 | 20 | 0,59 | QA/8100/27   |
| <b>Corrosion protected version</b> |        |      |    |    |    |      |              |
| 32                                 | 10     | 25,8 | 22 | 13 | 9  | 0,09 | PVQA/8032/27 |
| 40                                 | 12     | 27,8 | 25 | 16 | 12 | 0,11 | PVQA/8040/27 |
| 50                                 | 12     | 31,7 | 27 | 17 | 12 | 0,17 | PVQA/8050/27 |
| 63                                 | 16     | 39,7 | 32 | 22 | 15 | 0,24 | PVQA/8063/27 |
| 80                                 | 16     | 49,7 | 36 | 22 | 15 | 0,37 | PVQA/8080/27 |
| 100                                | 20     | 59,7 | 41 | 27 | 20 | 0,59 | PVQA/8100/27 |

**Trunnion support S**  
Conforms to ISO 15552, type AT4

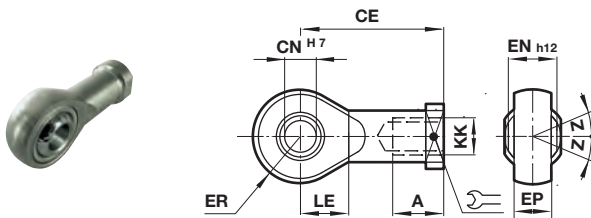
Dimensions in mm  
Projection/First angle



**Standard**

| Ø     | A  | B  | C    | Ø    | Ø  | Ø   | Fx  | H   | T1 | kg | Model (S) |      |            |
|-------|----|----|------|------|----|-----|-----|-----|----|----|-----------|------|------------|
|       |    | 1  | 2    | D1H7 | D2 | D3  | 45° | 1   | 2  |    |           |      |            |
| 32    | 32 | 46 | 18   | 10,5 | 12 | 6,6 | 11  | 1   | 30 | 15 | 6,8       | 0,10 | QA/8032/41 |
| 40/50 | 36 | 55 | 21   | 12   | 16 | 9   | 15  | 1,6 | 36 | 18 | 9         | 0,14 | QA/8040/41 |
| 63/80 | 42 | 65 | 23   | 13   | 20 | 11  | 18  | 1,6 | 40 | 20 | 11        | 0,18 | QA/8063/41 |
| 100   | 50 | 75 | 28,5 | 16   | 25 | 14  | 20  | 2   | 50 | 25 | 13        | 0,34 | QA/8100/41 |

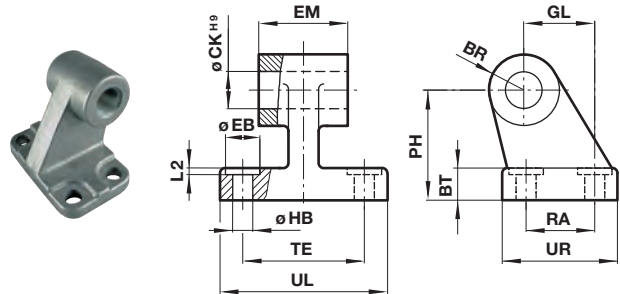
**Universal piston rod eye UF**  
Conforms to DIN ISO 8139



**Standard**

| Ø                                  | Thread KK | AX | CE | Ø CNH7 | EN -0,1 | ER   | LE | Z   | kg   | Model (UF)   |
|------------------------------------|-----------|----|----|--------|---------|------|----|-----|------|--------------|
| 32                                 | M10x1,25  | 20 | 43 | 10     | 14      | 14   | 15 | 13° | 0,09 | QM/8025/32   |
| 40                                 | M12x1,25  | 22 | 50 | 12     | 16      | 16   | 17 | 13° | 0,13 | QM/8040/32   |
| 50/63                              | M16x1,5   | 28 | 64 | 16     | 21      | 21   | 22 | 15° | 0,33 | QM/8050/32   |
| 80/100                             | M20x1,5   | 33 | 77 | 20     | 25      | 25   | 26 | 15° | 0,67 | QM/8080/32   |
| <b>Corrosion protected version</b> |           |    |    |        |         |      |    |     |      |              |
| 32                                 | M10x1,25  | 20 | 43 | 10     | 14      | 14   | 15 | 13° | 0,09 | PVQM/8025/32 |
| 40                                 | M12x1,25  | 22 | 50 | 12     | 16      | 16   | 17 | 13° | 0,13 | PVQM/8040/32 |
| 50/63                              | M16x1,5   | 28 | 64 | 16     | 21      | 21   | 22 | 15° | 0,33 | PVQM/8050/32 |
| 80/100                             | M20x1,5   | 33 | 77 | 20     | 25      | 25   | 26 | 15° | 0,4  | PVQM/8080/32 |
| <b>Stainless steel</b>             |           |    |    |        |         |      |    |     |      |              |
| 32                                 | M10x1,25  | 20 | 43 | 10     | 14      | 14,5 | 14 | 13° | 0,07 | QKM/8032/32  |
| 40                                 | M12x1,25  | 22 | 50 | 12     | 16      | 16,5 | 16 | 13° | 0,11 | QKM/8040/32  |
| 50/63                              | M16x1,5   | 28 | 64 | 16     | 21      | 21,5 | 21 | 15° | 0,21 | QKM/8050/32  |
| 80/100                             | M20x1,5   | 33 | 77 | 20     | 25      | 25,5 | 25 | 15° | 0,38 | QKM/8080/32  |

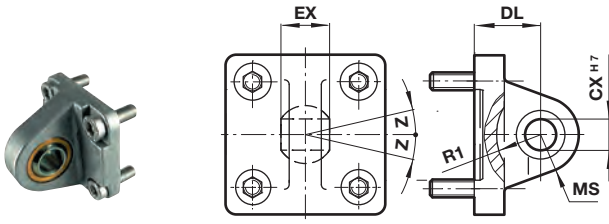
**Wide hinge SW**  
Conforms to ISO 15552, type AB7



**Standard**

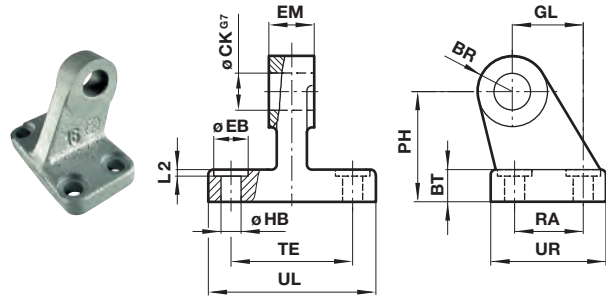
| Ø                                  | CA | Ø CKH9 | Ø D | H  | EM   | G  | G  | G  | K  | K  | L   | R  | Ø S | kg   | Model (SW) |
|------------------------------------|----|--------|-----|----|------|----|----|----|----|----|-----|----|-----|------|------------|
|                                    |    |        |     | 2  |      | 1  | 2  | 3  | 1  | 2  | 1   |    |     |      |            |
| 32                                 | 32 | 10     | 11  | 7  | 25,5 | 21 | 18 | 31 | 38 | 50 | 1,6 | 10 | 6,6 | 0,05 | M/P19493   |
| 40                                 | 36 | 12     | 11  | 9  | 27,5 | 24 | 22 | 35 | 41 | 54 | 1,6 | 11 | 6,6 | 0,07 | M/P19494   |
| 50                                 | 45 | 12     | 15  | 11 | 31,5 | 33 | 30 | 45 | 50 | 65 | 1,6 | 13 | 9   | 0,14 | M/P19495   |
| 63                                 | 50 | 16     | 15  | 12 | 39,5 | 37 | 35 | 50 | 52 | 67 | 1,6 | 15 | 9   | 0,18 | M/P19496   |
| 80                                 | 63 | 16     | 18  | 14 | 49,5 | 47 | 40 | 60 | 66 | 84 | 2,5 | 15 | 11  | 0,28 | M/P19497   |
| 100                                | 71 | 20     | 18  | 15 | 59,5 | 55 | 50 | 70 | 76 | 94 | 2,5 | 19 | 11  | 0,42 | M/P19498   |
| <b>Corrosion protected version</b> |    |        |     |    |      |    |    |    |    |    |     |    |     |      |            |
| 32                                 | 32 | 10     | 11  | 8  | 26,5 | 21 | 18 | 31 | 38 | 51 | 1,6 | 10 | 6,6 | 0,05 | M/P40459   |
| 40                                 | 36 | 12     | 11  | 10 | 28,5 | 24 | 22 | 35 | 41 | 54 | 1,6 | 11 | 6,6 | 0,07 | M/P40460   |
| 50                                 | 45 | 12     | 15  | 12 | 32,5 | 33 | 30 | 45 | 50 | 65 | 1,6 | 13 | 9   | 0,14 | M/P40461   |
| 63                                 | 50 | 16     | 15  | 12 | 40,5 | 37 | 35 | 50 | 52 | 67 | 1,6 | 15 | 9   | 0,18 | M/P40462   |
| 80                                 | 63 | 16     | 18  | 14 | 50,5 | 47 | 40 | 60 | 66 | 86 | 2,5 | 15 | 11  | 0,28 | M/P40463   |
| 100                                | 71 | 20     | 18  | 15 | 60,5 | 55 | 50 | 70 | 76 | 96 | 2,5 | 19 | 11  | 0,42 | M/P40464   |
| <b>Stainless steel</b>             |    |        |     |    |      |    |    |    |    |    |     |    |     |      |            |
| 32                                 | 32 | 10     | 11  | 8  | 26   | 21 | 18 | 31 | 38 | 51 | 1,6 | 10 | 6,6 | 0,15 | M/P72288   |
| 40                                 | 36 | 12     | 11  | 10 | 28   | 24 | 22 | 35 | 41 | 53 | 1,6 | 11 | 6,6 | 0,21 | M/P72289   |
| 50                                 | 45 | 12     | 15  | 12 | 32   | 33 | 30 | 45 | 50 | 65 | 1,6 | 13 | 9   | 0,41 | M/P72290   |
| 63                                 | 50 | 16     | 15  | 12 | 40   | 37 | 35 | 50 | 52 | 67 | 1,6 | 15 | 9   | 0,53 | M/P72291   |
| 80                                 | 63 | 16     | 18  | 14 | 50   | 47 | 40 | 60 | 66 | 86 | 2,5 | 15 | 11  | 0,82 | M/P72292   |
| 100                                | 71 | 20     | 18  | 15 | 60   | 55 | 50 | 70 | 76 | 96 | 2,5 | 19 | 11  | 1,22 | M/P72293   |

**Universal rear eye UR**  
Conforms to ISO 15552, type MP6



**Narrow hinge SS**

Dimensions in mm  
Projection/First angle



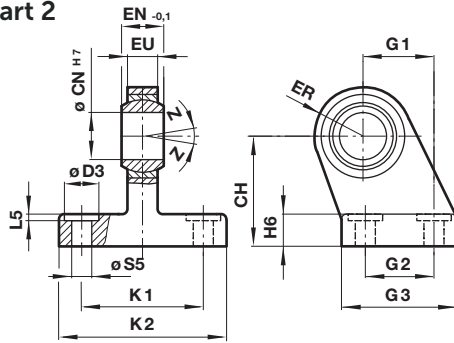
**Standard**

| Ø                                  | Ø CNH7 | EN | ER | FL | R    | Z   | kg   | Model (UR)   |
|------------------------------------|--------|----|----|----|------|-----|------|--------------|
| 32                                 | 10     | 14 | 16 | 22 | 14,5 | 13° | 0,15 | QA/8032/33   |
| 40                                 | 12     | 16 | 18 | 25 | 18   | 13° | 0,25 | QA/8040/33   |
| 50                                 | 16     | 21 | 21 | 27 | 19   | 15° | 0,40 | QA/8050/33   |
| 63                                 | 16     | 21 | 23 | 32 | 24   | 15° | 0,55 | QA/8063/33   |
| 80                                 | 20     | 25 | 28 | 36 | 24   | 15° | 0,90 | QA/8080/33   |
| 100                                | 20     | 25 | 30 | 41 | 29   | 15° | 1,50 | QA/8100/33   |
| <b>Corrosion protected version</b> |        |    |    |    |      |     |      |              |
| 32                                 | 10     | 14 | 16 | 22 | 14,5 | 13° | 0,15 | PVQA/8032/33 |
| 40                                 | 12     | 16 | 19 | 25 | 18   | 13° | 0,25 | PVQA/8040/33 |
| 50                                 | 16     | 21 | 21 | 27 | 19   | 13° | 0,4  | PVQA/8050/33 |
| 63                                 | 16     | 21 | 24 | 32 | 24   | 15° | 0,55 | PVQA/8063/33 |
| 80                                 | 20     | 25 | 28 | 36 | 24   | 15° | 0,9  | PVQA/8080/33 |
| 100                                | 20     | 25 | 30 | 41 | 29   | 15° | 1,5  | PVQA/8100/33 |

**Standard**

| Ø   | CA | Ø CNG7 | Ø D | H2 | EM | G1 | G2 | G3 | K1 | K2 | L1  | R  | Ø S | kg   | Model (SS) |
|-----|----|--------|-----|----|----|----|----|----|----|----|-----|----|-----|------|------------|
| 32  | 32 | 10     | 11  | 8  | 10 | 21 | 18 | 31 | 38 | 51 | 1,6 | 10 | 6,6 | 0,15 | M/P19931   |
| 40  | 36 | 12     | 11  | 10 | 12 | 24 | 22 | 35 | 41 | 54 | 1,6 | 11 | 6,6 | 0,20 | M/P19932   |
| 50  | 45 | 16     | 15  | 12 | 16 | 33 | 30 | 45 | 50 | 65 | 1,6 | 13 | 9   | 0,48 | M/P19933   |
| 63  | 50 | 16     | 15  | 12 | 16 | 37 | 35 | 50 | 52 | 67 | 1,6 | 15 | 9   | 0,50 | M/P19934   |
| 80  | 63 | 20     | 18  | 14 | 20 | 47 | 40 | 60 | 66 | 86 | 2,5 | 15 | 11  | 0,75 | M/P19935   |
| 100 | 71 | 20     | 18  | 15 | 20 | 55 | 50 | 70 | 76 | 96 | 2,5 | 19 | 11  | 1,20 | M/P19936   |

**Swivel hinge US**  
Conforms to VDMA 24562 part 2



**Standard**

| Ø   | CH | Ø CNH7 | Ø D | EN-0,1 | ER | EU   | G1 | G2 | G3 | H2 | K1 | K2 | L1  | Ø S | Z   | kg   | Model (US) |
|-----|----|--------|-----|--------|----|------|----|----|----|----|----|----|-----|-----|-----|------|------------|
| 32  | 32 | 10     | 11  | 14     | 16 | 10,5 | 21 | 18 | 31 | 10 | 38 | 51 | 1,6 | 6,6 | 13° | 0,19 | M/P40310   |
| 40  | 36 | 12     | 11  | 16     | 18 | 12   | 24 | 22 | 35 | 10 | 41 | 54 | 1,6 | 6,6 | 13° | 0,24 | M/P40311   |
| 50  | 45 | 16     | 15  | 21     | 21 | 15   | 33 | 30 | 45 | 12 | 50 | 65 | 1,6 | 9   | 13° | 0,46 | M/P40312   |
| 63  | 50 | 16     | 15  | 21     | 23 | 15   | 37 | 35 | 50 | 12 | 52 | 67 | 1,6 | 9   | 15° | 0,59 | M/P40313   |
| 80  | 63 | 20     | 18  | 25     | 28 | 18   | 47 | 40 | 60 | 14 | 66 | 86 | 2,5 | 11  | 15° | 1,03 | M/P40314   |
| 100 | 71 | 20     | 18  | 25     | 30 | 18   | 55 | 50 | 70 | 15 | 76 | 96 | 2,5 | 11  | 15° | 1,40 | M/P40315   |

**Cover screw (stainless steel)**



| Ø      | M   | ⌀  | K   | L    | kg    | Model          |
|--------|-----|----|-----|------|-------|----------------|
| 32/40  | M6  | 10 | 5,5 | 10,5 | 0,018 | PVQA/882032/88 |
| 50/63  | M8  | 13 | 6,8 | 10,5 | 0,041 | PVQA/882050/88 |
| 80/100 | M10 | 17 | 8,4 | 10   | 0,072 | PVQA/882080/88 |

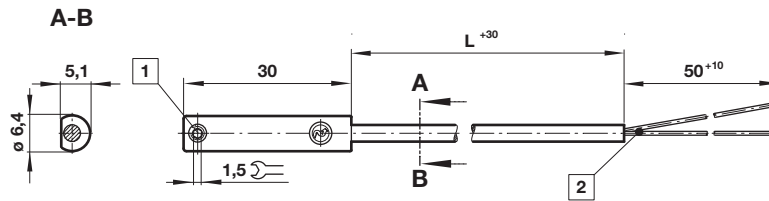
### Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

| Symbol | Voltage *2) |            | Current maximum (mA) | Function | Temperature (°C) | LED | Protection class | Features | Cable length (m) | Cable type   | Weight (g) | Model       |
|--------|-------------|------------|----------------------|----------|------------------|-----|------------------|----------|------------------|--------------|------------|-------------|
|        | (V a.c.)    | (V d.c.)   |                      |          |                  |     |                  |          |                  |              |            |             |
|        | 10 ... 240  | 10 ... 170 | 180                  | Closer   | -25 ... +80      | •   | IP66             | —        | 2                | PVC 2 x 0,25 | 37         | M/50/LSU/2V |

\*2) Supply voltage 24 V d.c. (± 10%) max for P.A/88200/M only.  
Attention: Reed switches for Ø 40 ... 100 mm useable only!

### Drawings

M/50/LSU/2V,  
Cable length L = 2 m



Dimensions in mm  
Projection/First angle



- 1 Fixing screw
- 2 Color code: BK = black; BN = brown; BU = blue

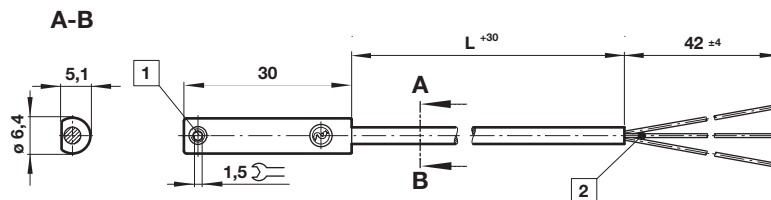
### Technical data - Solid state - additional informations see data sheet N/en 4.3.007

| Symbol | Voltage *2) |          | Current max. (mA) | Function | Temperature (°C) | LED | Protection class | Features | Cable length (m) | Cable type   | Weight (g) | Model       |
|--------|-------------|----------|-------------------|----------|------------------|-----|------------------|----------|------------------|--------------|------------|-------------|
|        | (V d.c.)    | (V d.c.) |                   |          |                  |     |                  |          |                  |              |            |             |
|        | 10 ... 30   |          | 150               | PNP      | -40 ... +80      | •   | IP67             | —        | 2                | PVC 3 x 0,12 | 37         | M/50/EAP/2V |

\*2) Supply voltage 24 V d.c. (± 10%) max for P.A/88200/M only.

### Drawings

M/50/EAP/2V,  
Cable length L = 2 m



- 1 Fixing screw
- 2 Color code: BK = black; BN = brown; BU = blue

### Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/ data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren GmbH.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.