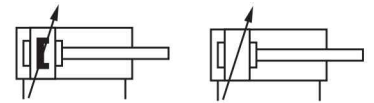


## PRA/842000/M, PRA/842000 Cleanline cylinder Magnetic or non-magnetic piston, double acting

- Ø 32 ... 100 mm
- Cylinder and mounting conform to ISO 15552
- Smooth and corrosion resistant design conforms to EN 1672-2, accepted in the food industry
- With food grade lubricant (white-listed NSF H1 lubricant and certified according to ISO 21469)
- Special PUR seals provide high performance and long life
- Adjustable integrated end position sensing option
- Alternative air ports as standard



### Technical features

**Medium:**  
Compressed air, filtered, lubricated or non-lubricated

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

**Operation:**  
Double acting, magnetic or non magnetic piston, adjustable cushioning

**Operating pressure:**  
1 ... 10 bar (14 ... 145 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 (10 ... 2000 mm)

**Operating temperature:**  
-20 ... +80°C max. (-4 ... +176°F)  
Air supply must be dry enough to avoid ice formation at temperatures below +2°C. (+35°F)

**Switching voltage:**  
10 ... 30 V d.c.

**Protection class:**  
IP67

**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

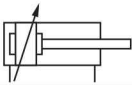
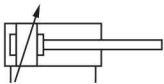
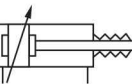
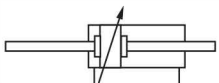
### Technical data

| 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)   | 0,05       | 0,076      | 0,117     | 0,198     | 0,324     | 0,514     |

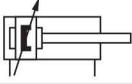
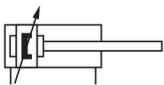
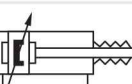
### Standard strokes

| 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 - non-magnetic piston

| Symbol                                                                            | R | S | C | D | V | E | Model<br>Non-magnetic<br>piston | Description                                                                                                                                                        | Dimensions<br>Page |
|-----------------------------------------------------------------------------------|---|---|---|---|---|---|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|  | • | • | • | • | • | • | P../842000                      | Standard cylinder                                                                                                                                                  | 7                  |
|                                                                                   | • | • | • | • |   |   | P../842000/W1                   | Cylinder with heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice)                             |                    |
|  | • | • | • | • | • | • | P../842000/IU                   | Cylinder with extended piston rod                                                                                                                                  | 7                  |
|                                                                                   | • | • | • | • |   |   | P../842000/W5                   | Cylinder with extended piston rod and heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice)     |                    |
|  | • | • | • | • | • | • | P../842000/G                    | Cylinder with piston rod bellows                                                                                                                                   | 9                  |
|   | • | • | • | • | • | • | P../842000/J                    | Cylinder with double ended piston rod                                                                                                                              | 9                  |
|                                                                                   | • | • | • | • |   |   | P../842000/W3                   | Cylinder with double ended piston rod and heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice) |                    |
|  | • | • | • | • | • | • | P../842000/L2                   | Cylinder with locking unit (passive) spring force on removal of the signal to the unit. Operating pressure for locking unit: 4 ... 10 bar                          | 10                 |

## Cylinder variants - magnetic piston

| Symbol                                                                              | R | S | C | D | V | E | Model<br>magnetic piston | Description                                                                                                                                                                                   | Dimensions<br>Page |
|-------------------------------------------------------------------------------------|---|---|---|---|---|---|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|  | • | • | • | • | • | • | P../842000/M1*           | Standard cylinder with magnet piston and switch                                                                                                                                               | 8                  |
|                                                                                     | • | • | • | • |   |   | P../842000/W2*           | Cylinder with magnet piston and switch, with heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice)                         |                    |
|  | • | • | • | • | • | • | P../842000/MU*           | Cylinder with magnet piston and switch, with extended piston rod                                                                                                                              | 8                  |
|                                                                                     | • | • | • | • |   |   | P../842000/W6*           | Cylinder with magnet piston and switch, with extended piston rod and heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice) |                    |
|  | • | • | • | • | • | • | P../842000/MG*           | Cylinder with magnet piston and switch, with piston rod bellows                                                                                                                               | 9                  |
|  | • | • | • | • | • | • | P../842000/L4*           | Cylinder with magnet piston and switch, with locking unit (passive) spring force on removal of the signal to the unit. Operating pressure for locking unit: 4 ... 10 bar                      | 10                 |

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

\* Select magnet switch variant: "3" = Reed switch; "4" = solid state switch

## Option selector

| Piston rod material                                                           | Substitute |
|-------------------------------------------------------------------------------|------------|
| Stainless steel (martensitic);<br>Standard wiper seal                         | R          |
| Stainless steel (austenitic);<br>Standard wiper seal                          | S          |
| Hard chromium plated;<br>Standard wiper seal                                  | C          |
| Stainless steel (austenitic);<br>hard chromium plated;<br>Standard wiper seal | D          |
| Stainless steel (austenitic);<br>Smooth wiper seal                            | V          |
| Stainless steel (austenitic);<br>hard chromium plated;<br>Smooth wiper seal   | E          |
| Cylinder Ø (mm)                                                               | Substitute |
| 032, 040, 050, 063, 080, 100                                                  |            |

Note: If option is not required, disregard option position within part number, eg. PRA/842032/100.

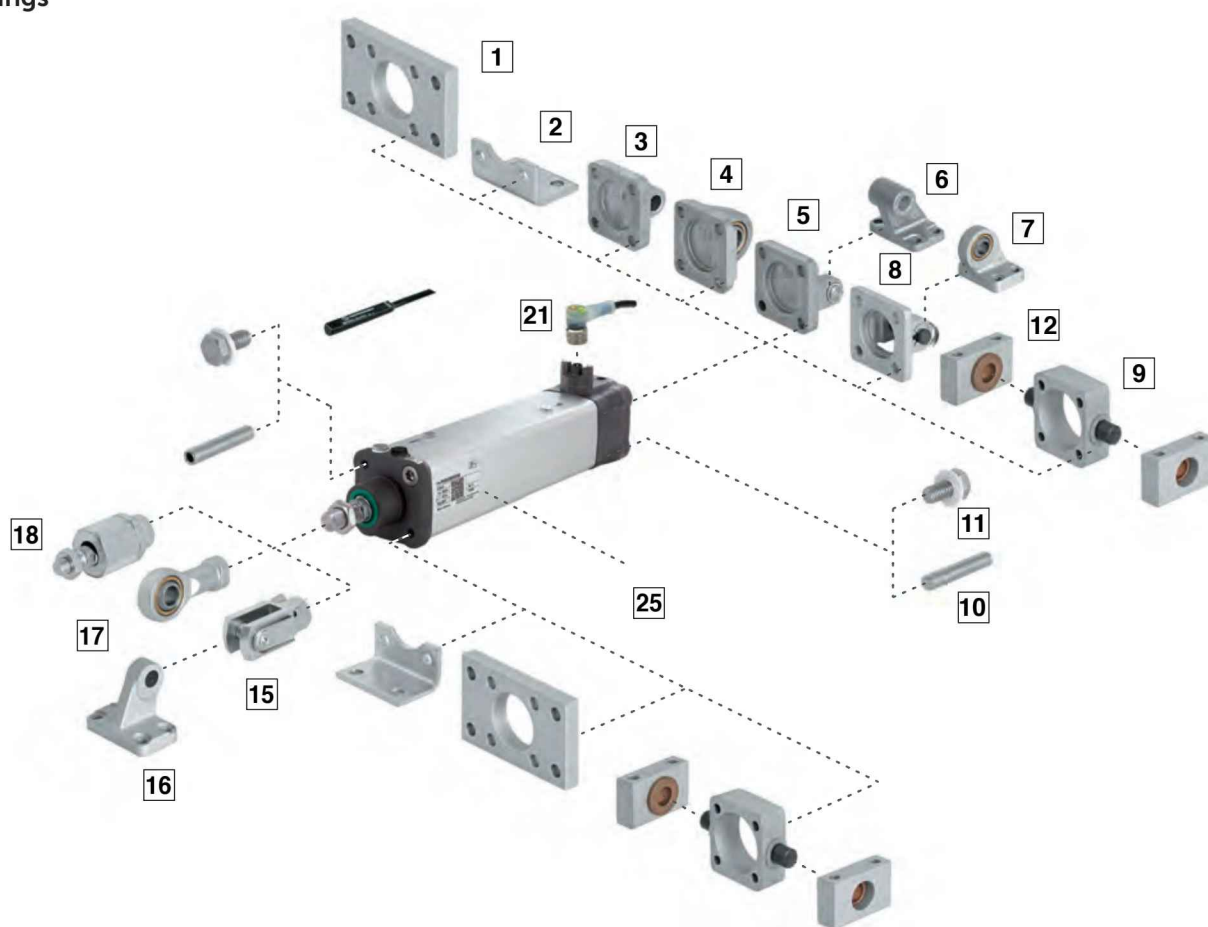
For combinations of cylinder variants consult our Technical Service.

This options selector explains only the cylinder variants. Additional variants/options can not be derived from.

P★A/842★/★/★/★/★/★

| Strokes (mm)                                   |                |
|------------------------------------------------|----------------|
| 2000 max.                                      |                |
| Switch variants                                | Substitute     |
| Without                                        | None           |
| Adjustable reed switch position                | 3              |
| Adjustable solid state switch position         | 4              |
| Variants (magnetic piston)                     | Substitute     |
| Standard                                       | MI             |
| Special wiper seal                             | W2             |
| Piston rod bellow                              | MG             |
| Extended piston rod                            | MU             |
| Special wiper seal, extended piston rod        | W6             |
| P**/842***/MU/*****/W6/                        | Extension (mm) |
| Piston rod locking unit                        | L4             |
| Variants (non-magnetic piston)                 | Substitute     |
| Standard                                       | None           |
| Double ended piston rod                        | J              |
| Special wiper seal                             | W1             |
| Double ended piston rod,<br>special wiper seal | W3             |
| Piston rod bellow                              | G              |
| Extended piston rod                            | IU             |
| Special wiper seal, extended piston rod        | W5             |
| P**/842***/IU/*****/W5/                        | Extension (mm) |
| Piston rod locking unit                        | L2             |

## Mountings



| 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    | Diecast 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 cast iron. Inner ring: steel<br>Outer ring: brass                           | —                                                                                                                                                                                  | —                                                                                                                                   |
| 8        | D2    | Painted cast iron. Bolt: stainless steel (martensitic)<br>Circlip: galvanized steel    | —                                                                                                                                                                                  | —                                                                                                                                   |
| 9        | FH    | Galvanized 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    | Galvanized 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),<br>Outer ring X 5 Cr Ni 18 10 (1.4301; AISI 304)     |
| 18       | AK    | Galvanized steel                                                                       | —                                                                                                                                                                                  | —                                                                                                                                   |

## Mountings

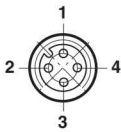
| Model                      | A                                                                                   | AK                                                                                  | B, G                                                                                | C                                                                                   | D                                                                                   | D2                                                                                   | F                                                                                     | FH                                                                                    | R                                                                                   |
|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                            |    |    |    |    |    |    |    |    |  |
| Cyl. Ø                     | <b>10</b><br>Page 11                                                                | <b>18</b><br>Page 11                                                                | <b>1</b><br>Page 11                                                                 | <b>2</b><br>Page 11                                                                 | <b>5</b><br>Page 12                                                                 | <b>8</b><br>Page 12                                                                  | <b>15</b><br>Page 12                                                                  | <b>9</b><br>Page 12                                                                   | <b>3</b><br>Page 13                                                                 |
| 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                                                                           | —                                                                                     | —                                                                                   |
|                            |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                     |
|                            | <b>S</b>                                                                            | <b>SS</b>                                                                           | <b>SW</b>                                                                           | <b>UF</b>                                                                           | <b>UR</b>                                                                           | <b>US</b>                                                                            | <b>Cover screws</b>                                                                   | <b>Magnetically operated switches</b>                                                 |                                                                                     |
|                            |  |  |  |  |  |  |  |  |                                                                                     |
| Cyl. Ø                     | <b>12</b><br>Page 13                                                                | <b>16</b><br>Page 14                                                                | <b>6</b><br>Page 13                                                                 | <b>17</b><br>Page 13                                                                | <b>4</b><br>Page 14                                                                 | <b>7</b><br>Page 14                                                                  | <b>11</b><br>Page 14                                                                  | <b>25</b><br>Page 15                                                                  |                                                                                     |
| 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                                                                        |                                                                                       |                                                                                     |

Accessories and seal kits

M12 cables

|                                                                                   |                               |
|-----------------------------------------------------------------------------------|-------------------------------|
| Cable length                                                                      | Plug with moulded cable IP 67 |
|  |                               |
| (m)                                                                               | <b>21</b>                     |
| 2                                                                                 | M/P73525/2                    |
| 5                                                                                 | M/P73525/5                    |
| 10                                                                                | M/P73525/10                   |

Wiring diagram for M12 male connector

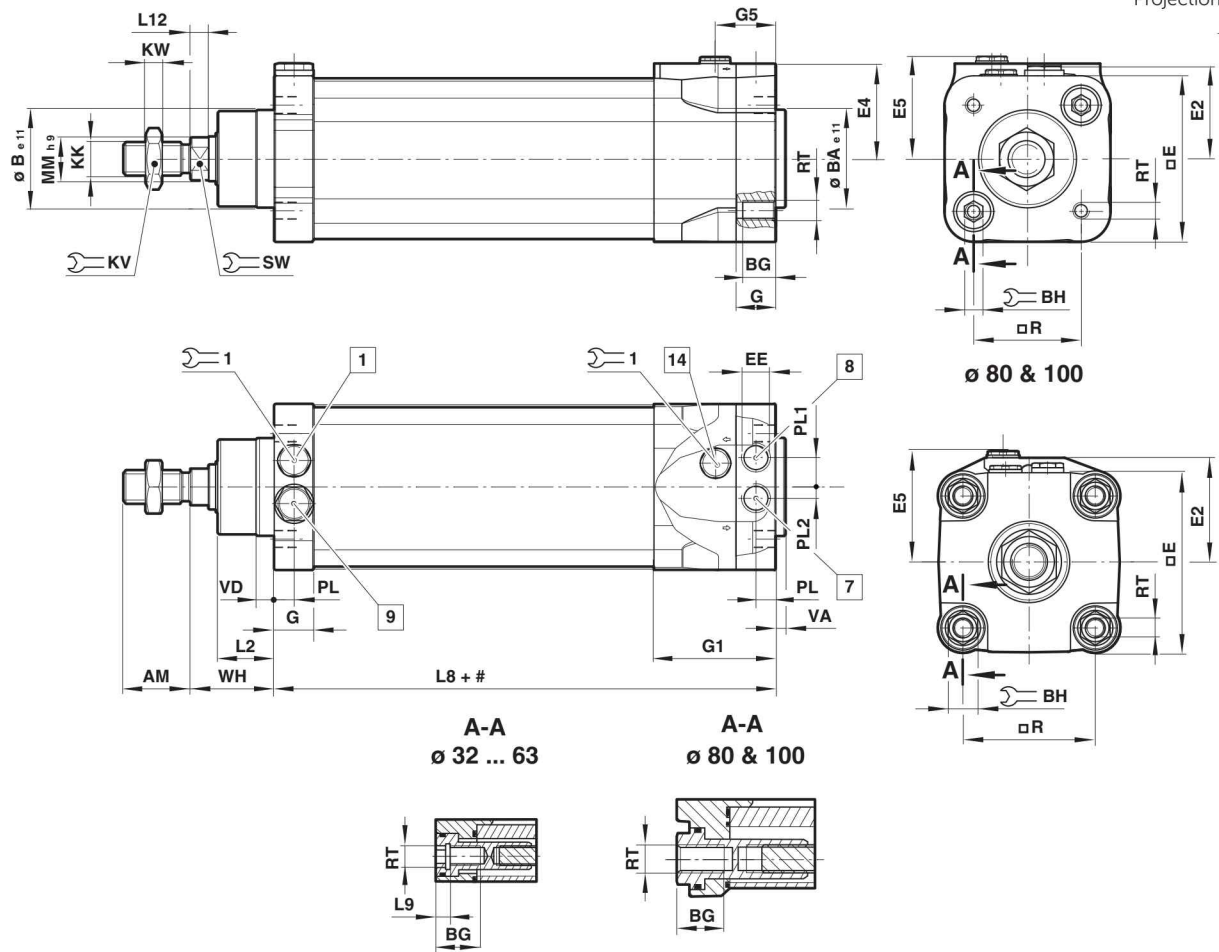


| Pin | Features           | Colour |
|-----|--------------------|--------|
| 1   | 10 ... 30 V d.c.   | Brown  |
| 2   | Signal (outstroke) | White  |
| 3   | Not used           | Blue   |
| 4   | Signal (instroke)  | Black  |

Service kit

|                                                                                     |                |
|-------------------------------------------------------------------------------------|----------------|
|  |                |
| Cyl. Ø                                                                              |                |
| 32                                                                                  | PRQA/842032/00 |
| 40                                                                                  | PRQA/842040/00 |
| 50                                                                                  | PRQA/842050/00 |
| 63                                                                                  | PRQA/842063/00 |
| 80                                                                                  | PRQA/842080/00 |
| 100                                                                                 | PRQA/842100/00 |

## Dimensions; non-magnetic piston



# Stroke

1 Cushion adjustment front end cover

7 Air supply, cylinder instroke

8 Air supply, cylinder outstroke

9 Alternative air supply, cylinder instroke

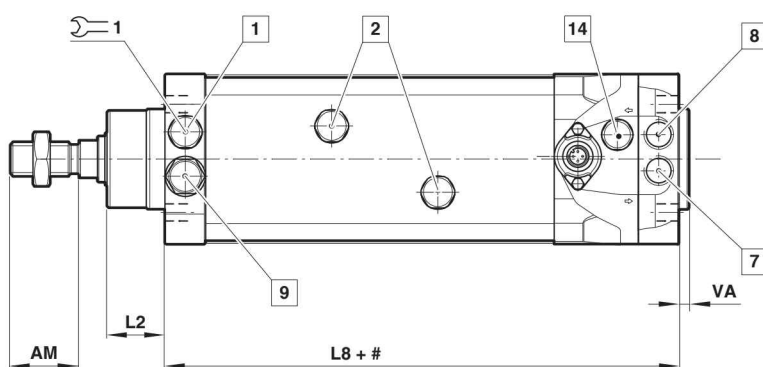
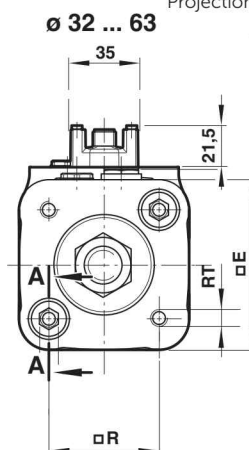
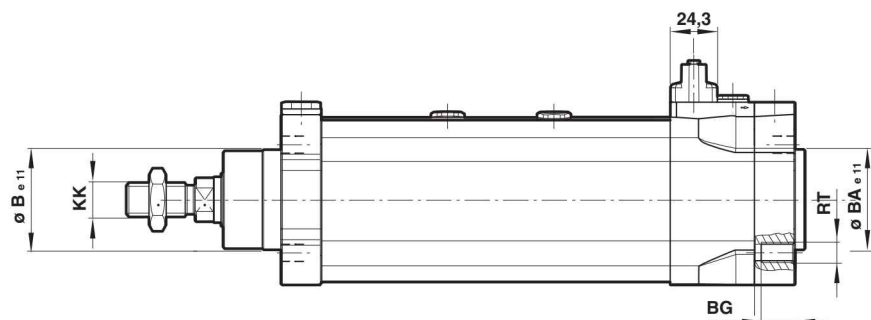
14 Cushion adjustment rear end cover

| Cyl<br>Ø | AM  | Ø B<br>e11 | Ø BA<br>e11 | BG   | BH  | □ E  | E2   | E4   | E5   | EE   | G    | G1   | G3   | KK       | KW        | L2           | L8  | L9 |
|----------|-----|------------|-------------|------|-----|------|------|------|------|------|------|------|------|----------|-----------|--------------|-----|----|
| 32       | 22  | 30         | 30          | 16   | 6   | 53   | 31   | 32   | 34   | G1/8 | 14   | 47   | 20,5 | M10x1,25 | 5         | 20           | 94  | 4  |
| 40       | 24  | 35         | 35          | 16   | 6   | 60   | 34,5 | 34   | 36   | G1/8 | 14   | 53   | 22,5 | M12x1,25 | 6         | 21           | 105 | 4  |
| 50       | 32  | 40         | 40          | 16   | 8   | 71,5 | 40   | 39   | 42,5 | G1/8 | 14   | 55,5 | 24,5 | M16x1,5  | 8         | 28           | 106 | 5  |
| 63       | 32  | 45         | 45          | 16   | 8   | 82   | 46   | 45,5 | 49   | G1/4 | 19   | 58   | 29,5 | M16x1,5  | 8         | 28           | 121 | 5  |
| 80       | 40  | 45         | 45          | 17   | 16  | 99   | 54   | 57   | 60,5 | G1/4 | 19   | 63   | 31   | M20x1,5  | 10        | 35           | 128 | -  |
| 100      | 40  | 55         | 55          | 17   | 16  | 119  | 65   | 65   | 68,5 | G3/8 | 24,5 | 67   | 36,5 | M20x1,5  | 10        | 38           | 138 | -  |
| Cyl<br>Ø | L12 | Ø MM<br>h9 | PL          | PL1  | PL2 | □ R  | RT   | VA   | VD   | WH   | KV   | SW   | 1    | at 0 mm  | per 25 mm | Model        |     |    |
| 32       | 4,5 | 12         | 7           | 10,5 | 4   | 32,5 | M 6  | 3    | 6    | 26   | 17   | 10   | 11   | 0,56 kg  | 0,07 kg   | PRA/842032/* |     |    |
| 40       | 6,5 | 16         | 7           | 10,5 | 4   | 38   | M 6  | 3,5  | 6    | 30   | 19   | 13   | 11   | 0,93 kg  | 0,11 kg   | PRA/842040/* |     |    |
| 50       | 6,5 | 20         | 7           | 12,5 | 4   | 46,5 | M 8  | 3,5  | 6    | 37   | 24   | 17   | 13   | 1,48 kg  | 0,18 kg   | PRA/842050/* |     |    |
| 63       | 6,5 | 20         | 9,5         | 14,5 | 6   | 56,5 | M 8  | 4    | 6    | 37   | 24   | 17   | 13   | 2,32 kg  | 0,19 kg   | PRA/842063/* |     |    |
| 80       | 7,5 | 25         | 9,5         | 14   | 6   | 72   | M 10 | 4    | 6    | 46   | 30   | 22   | 17   | 4,02 kg  | 0,29 kg   | PRA/842080/* |     |    |
| 100      | 10  | 25         | 12          | 16,5 | 8,5 | 89   | M 10 | 4    | 6    | 51   | 30   | 22   | 17   | 6,24 kg  | 0,35 kg   | PRA/842100/* |     |    |

\* Please insert standard stroke length

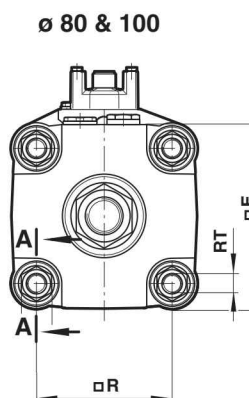
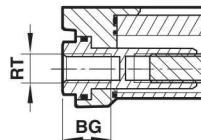
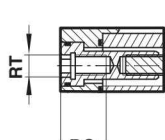
## Dimensions; magnetic piston

Dimensions in mm  
Projection/First angle



A-A  
Ø 32 ... 63

A-A  
Ø 80 & 100



# Stroke

- 1 Cushion adjustment front end cover
- 2 Magnetically operated switches (AF 11)
- 7 Air supply, cylinder instroke

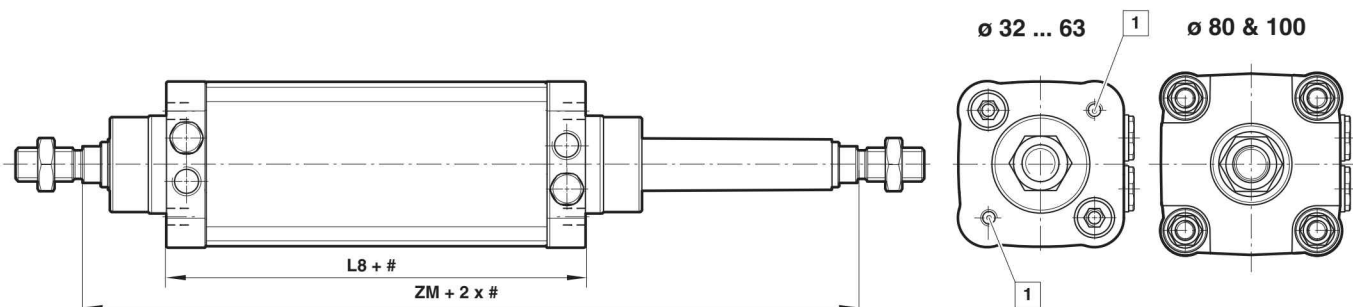
- 8 Air supply, cylinder outstroke
- 9 Alternative air supply, cylinder instroke
- 14 Cushion adjustment rear end cover

| Cyl Ø | AM  | Ø Be11 | Ø BAe11 | BG   | BH  | Ø E  | E2   | E4   | E5   | EE   | G    | G1   | G4   | G5   | KK       | KW        | L2               | L8  | L9 |
|-------|-----|--------|---------|------|-----|------|------|------|------|------|------|------|------|------|----------|-----------|------------------|-----|----|
| 32    | 22  | 30     | 30      | 16   | 6   | 53   | 31   | 32   | 34   | G1/8 | 14   | 47   | 34   | 20,5 | M10x1,25 | 5         | 20               | 94  | 4  |
| 40    | 24  | 35     | 35      | 16   | 6   | 60   | 34,5 | 34   | 36   | G1/8 | 14   | 53   | 40   | 22,5 | M12x1,25 | 6         | 21               | 105 | 4  |
| 50    | 32  | 40     | 40      | 16   | 8   | 71,5 | 40   | 39   | 42,5 | G1/8 | 14   | 55,5 | 42,5 | 24,5 | M16x1,5  | 8         | 28               | 106 | 5  |
| 63    | 32  | 45     | 45      | 16   | 8   | 82   | 46   | 45,5 | 49   | G1/4 | 19   | 58   | 45,5 | 29,5 | M16x1,5  | 8         | 28               | 121 | 5  |
| 80    | 40  | 45     | 45      | 17   | 16  | 99   | 54   | 57   | 60,5 | G1/4 | 19   | 63   | 50   | 31   | M20x1,5  | 10        | 35               | 128 | -  |
| 100   | 40  | 55     | 55      | 17   | 16  | 119  | 65   | 65   | 68,5 | G3/8 | 24,5 | 67   | 54,5 | 36,5 | M20x1,5  | 10        | 38               | 138 | -  |
| Cyl Ø | L12 | Ø MMh9 | PL      | PL1  | PL2 | Ø R  | RT   | VA   | VD   | WH   | X1   | KV   | SW   | 1    | at 0 mm  | per 25 mm | Model            |     |    |
| 32    | 4,5 | 12     | 7       | 10,5 | 4   | 32,5 | M 6  | 3    | 6    | 26   | 0    | 17   | 10   | 11   | 0,56 kg  | 0,07 kg   | PRA/842032/MI+/* |     |    |
| 40    | 6,5 | 16     | 7       | 10,5 | 4   | 38   | M 6  | 3,5  | 6    | 30   | 0    | 19   | 13   | 11   | 0,93 kg  | 0,11 kg   | PRA/842040/MI+/* |     |    |
| 50    | 6,5 | 20     | 7       | 12,5 | 4   | 46,5 | M 8  | 3,5  | 6    | 37   | 0,5  | 24   | 17   | 13   | 1,48 kg  | 0,18 kg   | PRA/842050/MI+/* |     |    |
| 63    | 6,5 | 20     | 9,5     | 14,5 | 6   | 56,5 | M 8  | 4    | 6    | 37   | 1,5  | 24   | 17   | 13   | 2,32 kg  | 0,19 kg   | PRA/842063/MI+/* |     |    |
| 80    | 7,5 | 25     | 9,5     | 14   | 6   | 72   | M 10 | 4    | 6    | 46   | 0    | 30   | 22   | 17   | 4,02 kg  | 0,29 kg   | PRA/842080/MI+/* |     |    |
| 100   | 10  | 25     | 12      | 16,5 | 8,5 | 89   | M 10 | 4    | 6    | 51   | 0    | 30   | 22   | 17   | 6,24 kg  | 0,35 kg   | PRA/842100/MI+/* |     |    |

\* Please insert standard stroke length  
+ Magnetically switch variants

## Cylinder variants

### PRA/842000/J – Cylinder double ended piston rod; non-magnetic piston

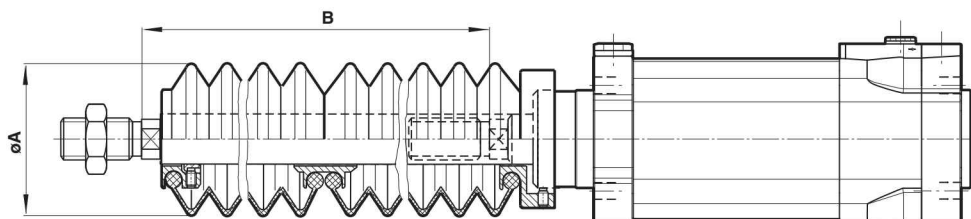


# Stroke  
1 Two threads can't be used for mountings

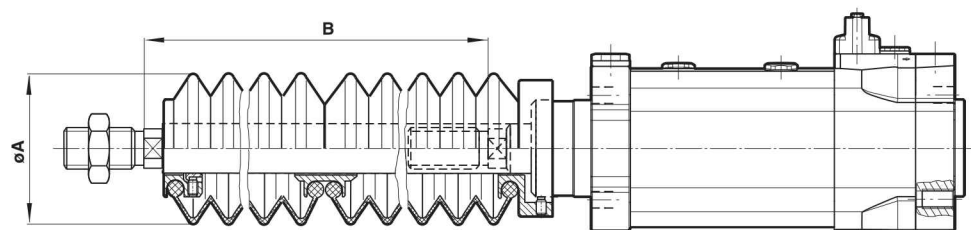
| Cyl. Ø | L8  | ZM  | Model Non-magnetic piston |
|--------|-----|-----|---------------------------|
| 32     | 94  | 146 | PRA/842032/J/*            |
| 40     | 105 | 165 | PRA/842040/J/*            |
| 50     | 106 | 180 | PRA/842050/J/*            |
| 63     | 121 | 195 | PRA/842063/J/*            |
| 80     | 128 | 220 | PRA/842080/J/*            |
| 100    | 138 | 240 | PRA/842100/J/*            |

\* Please insert standard stroke length

### PRA/842000/G – Cylinder with piston rod bellow; non-magnetic piston



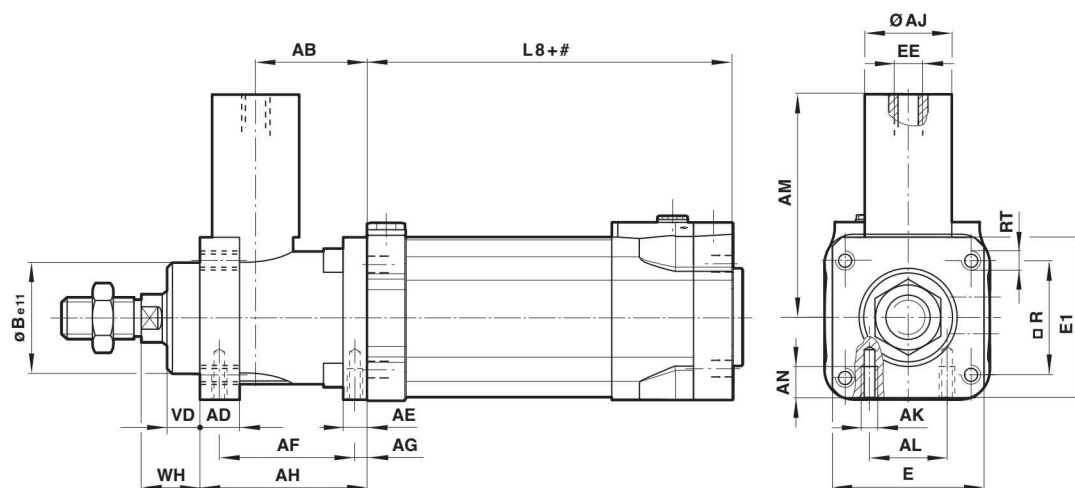
### PRA/842000/MG – Cylinder with piston rod bellow; magnetic piston



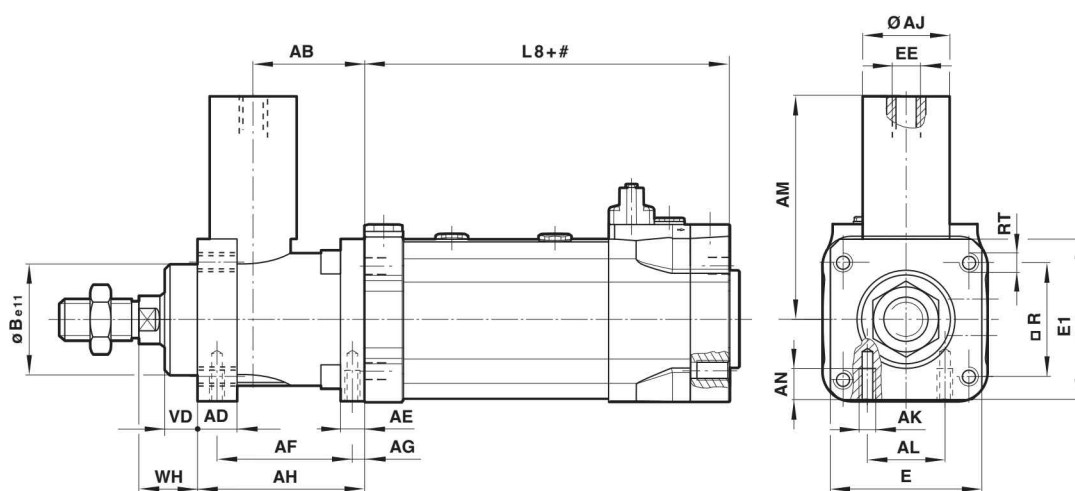
| Cyl. Ø | Ø A | Stroke max per bellow | Piston rod extention B for first bellow | Piston rod extention B for further bellows | Model Non-magnetic piston | Model Magnetic piston |
|--------|-----|-----------------------|-----------------------------------------|--------------------------------------------|---------------------------|-----------------------|
| 32     | 40  | 60                    | 30                                      | 25                                         | PRA/842032/G/*            | PRA/842032/MG+/*      |
| 40     | 63  | 145                   | 50                                      | 32                                         | PRA/842040/G/*            | PRA/842040/MG+/*      |
| 50     | 63  | 145                   | 40                                      | 32                                         | PRA/842050/G/*            | PRA/842050/MG+/*      |
| 63     | 63  | 145                   | 40                                      | 32                                         | PRA/842063/G/*            | PRA/842063/MG+/*      |
| 80     | 80  | 250                   | 50                                      | 45                                         | PRA/842080/G/*            | PRA/842080/MG+/*      |
| 100    | 80  | 250                   | 50                                      | 45                                         | PRA/842100/G/*            | PRA/842100/MG+/*      |

\* Please insert standard stroke length  
+ Magnetically switch variants

## PRA/842000/L2 – Cylinder with locking unit - non-magnetic piston



## PRA/842000/L4 – Cylinder with piston rod bellow - magnetic piston



| Cyl Ø | AB    | AD  | AE   | AF   | AG   | AH | Ø AJ          | AK  | AL                         | AM   | AN | Ø Be11                 | E   | E 1 |
|-------|-------|-----|------|------|------|----|---------------|-----|----------------------------|------|----|------------------------|-----|-----|
| 32    | 32    | 12  | 8    | 40   | 4,2  | 48 | 25            | M 5 | 16                         | 59   | 8  | 30                     | 48  | 50  |
| 40    | 35,5  | 12  | 10   | 46   | 4,5  | 55 | 24            | M 5 | 21                         | 61,5 | 10 | 35                     | 56  | 58  |
| 50    | 49    | 16  | 15   | 54   | 11,5 | 70 | 30            | M 6 | 24                         | 75   | 12 | 40                     | 68  | 70  |
| 63    | 49    | 15  | 15   | 55   | 7,5  | 70 | 38            | M 8 | 32                         | 86   | 12 | 45                     | 82  | 85  |
| 80    | 62    | 16  | 16   | 70   | 10   | 90 | 53            | M 8 | 44                         | 119  | 16 | 45                     | 100 | 105 |
| 100   | 65    | 18  | 16   | 70   | 10   | 92 | 48            | M 8 | 60                         | 119  | 16 | 55                     | 120 | 130 |
| Cyl Ø | EE    | L 8 | □ R  | RT   | VD   | WH | Locking force |     | Model; non-magnetic piston |      |    | Model; magnetic piston |     |     |
| 32    | M 5   | 94  | 32,5 | M 6  | 10   | 16 | 600 N         |     | PRA/842032/L2/*            |      |    | PRA/842032/L4+/*       |     |     |
| 40    | G 1/8 | 105 | 38   | M 6  | 10   | 18 | 1000 N        |     | PRA/842040/L2/*            |      |    | PRA/842040/L4+/*       |     |     |
| 50    | G 1/8 | 106 | 46,5 | M 8  | 12   | 22 | 1500 N        |     | PRA/842050/L2/*            |      |    | PRA/842050/L4+/*       |     |     |
| 63    | G 1/8 | 121 | 56,5 | M 8  | 12   | 20 | 2200 N        |     | PRA/842063/L2/*            |      |    | PRA/842063/L4+/*       |     |     |
| 80    | G 1/8 | 128 | 72   | M 10 | 20   | 33 | 5000 N        |     | PRA/842080/L2/*            |      |    | PRA/842080/L4+/*       |     |     |
| 100   | G 1/8 | 138 | 89   | M 10 | 23   | 38 | 5000 N        |     | PRA/842100/L2/*            |      |    | PRA/842100/L4+/*       |     |     |

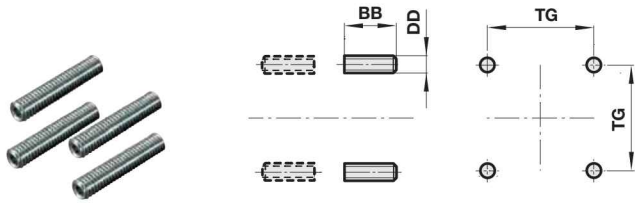
\* Please insert standard stroke length

+ Magnetically switch variants

## Mountings

### Front or rear stud mounting A

Conforms to ISO 15552, type MX1

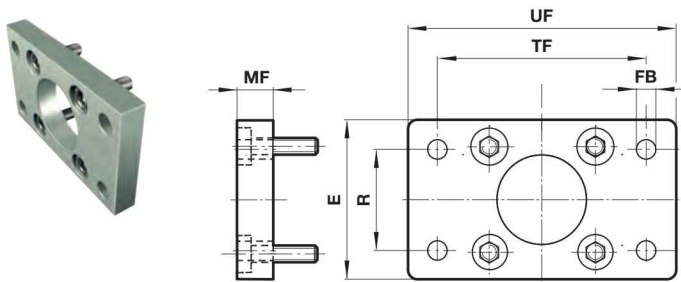


#### Standard

| 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

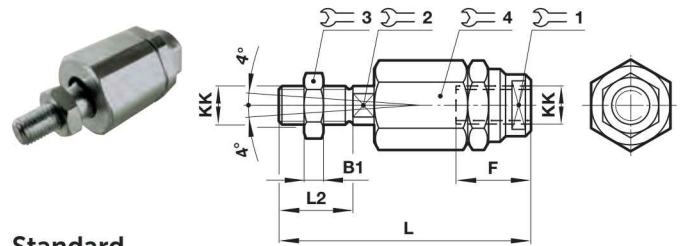


#### Standard

| 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

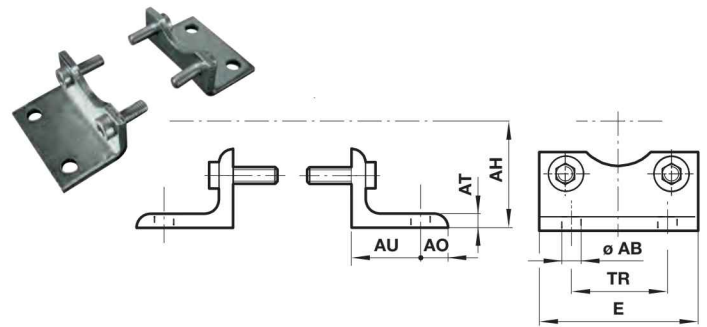


#### Standard

| 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

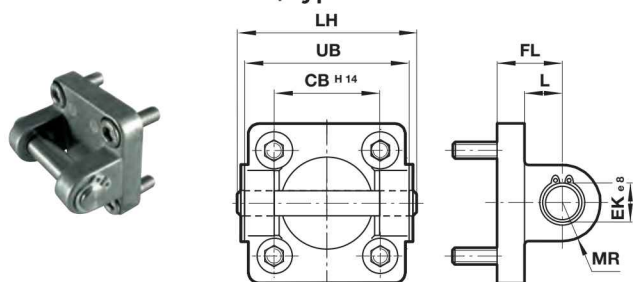


#### Standard

| 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

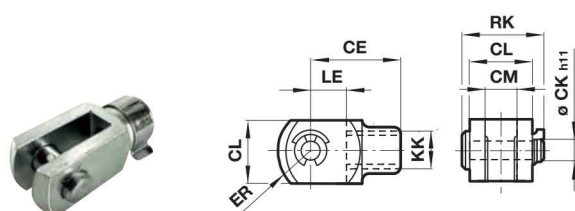


### Standard

| 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  |

## Piston rod clevis F

Conforms to DIN ISO 8140



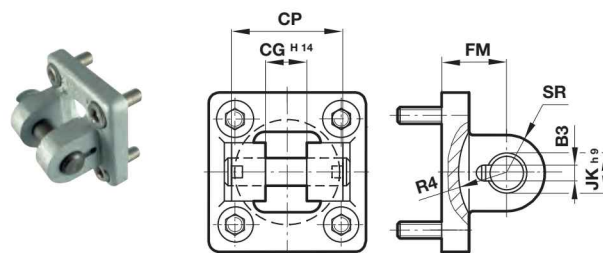
### Standard

| Ø                                  | KK       | CE | Ø CKh11 | 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  |

## Rear clevis D2

Conforms to ISO 15552, type AB6

Dimensions in mm  
Projection/First angle

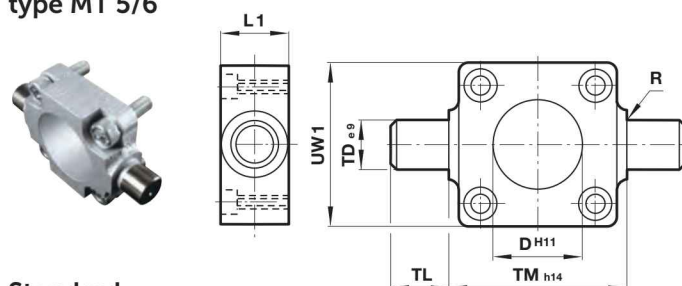


### Standard

| 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 |

## Front or rear detachable trunnion FH

Conforms to VDMA 24562 part 2, type MT 5/6

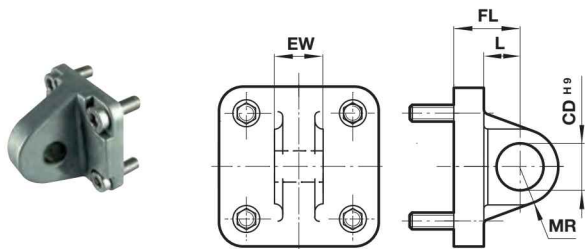


### Standard

| Ø   | Ø D h11 | L1 | R   | Ø TD e9 | TL | TM h14 | 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

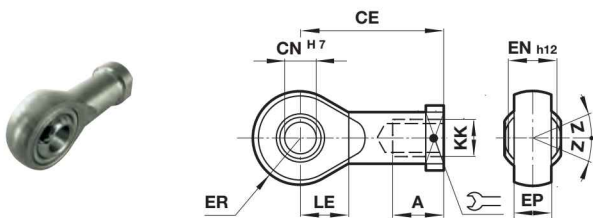


### Standard

| Ø                                  | Ø CD H9 | 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 |

## Universal piston rod eye UF

Conforms to DIN ISO 8139



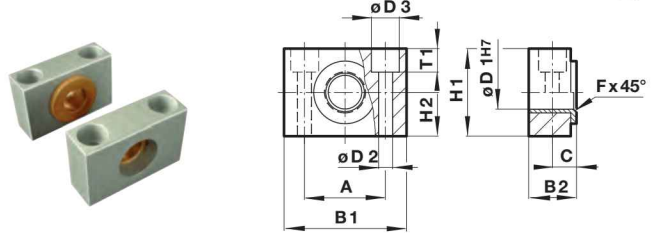
### Standard

| Ø                                  | Thread KK | AX | CE | Ø CN H7 | 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 | KQM/8032/32  |
| 40                                 | M12x1,25  | 22 | 50 | 12      | 16      | 16,5 | 16 | 13° | 0,11 | KQM/8040/32  |
| 50/63                              | M16x1,5   | 28 | 64 | 16      | 21      | 21,5 | 21 | 15° | 0,21 | KQM/8050/32  |
| 80/100                             | M20x1,5   | 33 | 77 | 20      | 25      | 25,5 | 25 | 15° | 0,38 | KQM/8080/32  |

## Trunnion support S

Conforms to ISO 15552, type AT4

Dimensions in mm  
Projection/First angle

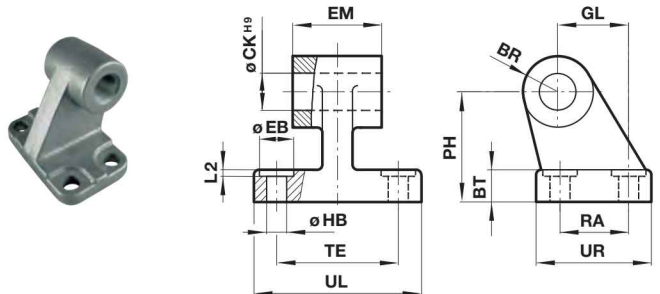


### Standard

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

## Wide hinge SW

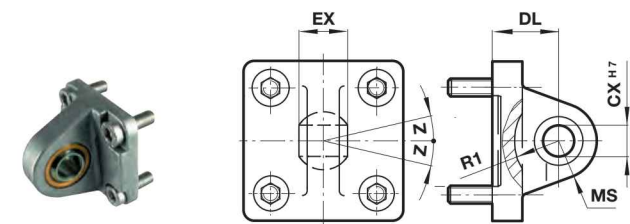
Conforms to ISO 15552, type AB7



### Standard

| Ø                                  | CA | Ø CKH9 | Ø D | H2 | EM   | G1 | G2 | G3 | K1 | K2 | L1  | R  | Ø S | kg   | Model (SW) |
|------------------------------------|----|--------|-----|----|------|----|----|----|----|----|-----|----|-----|------|------------|
| 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

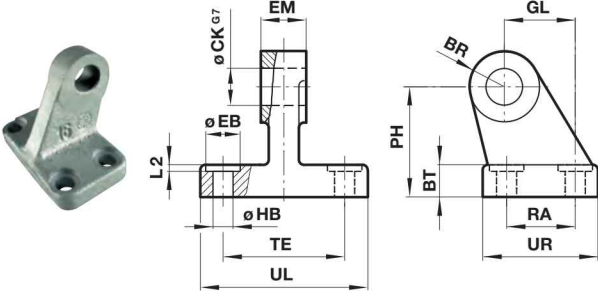


Standard

| Ø                           | Ø CN H7 | 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   |
| Corrosion protected version |         |    |    |    |      |     |      |              |
| 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 |

Narrow hinge SS

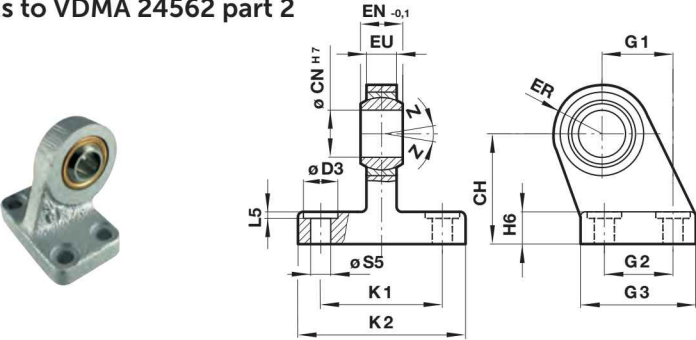
Dimensions in mm  
Projection/First angle



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   |

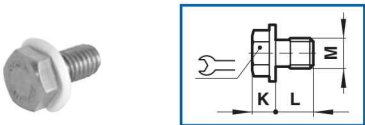
Swivel hinge US  
Conforms to VDMA 24562 part 2



Standard

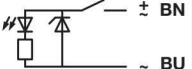
| Ø   | CH | Ø CN H7 | Ø D | EN -0,1 | ER | EU   | G1 | G2 | G3 | H2 | K1 | K2 | L1  | Ø S | Z   | kg   | Model (US) |
|-----|----|---------|-----|---------|----|------|----|----|----|----|----|----|-----|-----|-----|------|------------|
| 32  | 32 | 10      | 11  | 14      | 16 | 10,5 | 21 | 18 | 31 | 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 |

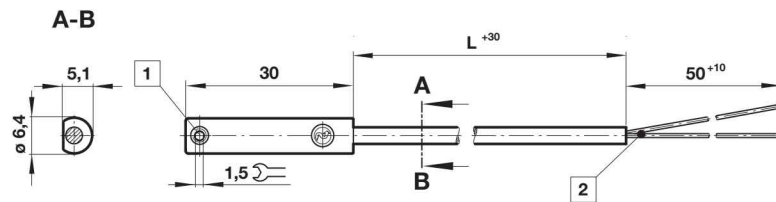
## Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

| Symbol                                                                            | Voltage *2)<br>(V a.c.) (V d.c.) | Current<br>maximum<br>(mA) | Function | Temperature<br>(°C) | LED | Protection<br>class | Features | Cable<br>length<br>(m) | Cable<br>type | Weight<br>(g) | Model       |
|-----------------------------------------------------------------------------------|----------------------------------|----------------------------|----------|---------------------|-----|---------------------|----------|------------------------|---------------|---------------|-------------|
|  | 10 ... 240<br>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. ( $\pm 10\%$ ) max for P.A/88200/M only.  
Attention: Reed switches for  $\varnothing 40 \dots 100$  mm useable only!

### Drawings

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

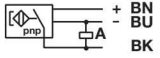


Dimensions in mm  
Projection/First angle



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

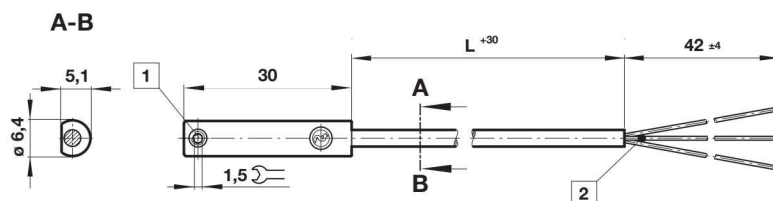
## Technical data - Solid state - additional informations see data sheet N/en 4.3.007

| Symbol                                                                              | Voltage *2)<br>(V d.c.) | Current<br>max. (mA) | Function | Temperature<br>(°C) | LED | Protection<br>class | Features | Cable length<br>(m) | Cable<br>type | Weight<br>(g) | Model       |
|-------------------------------------------------------------------------------------|-------------------------|----------------------|----------|---------------------|-----|---------------------|----------|---------------------|---------------|---------------|-------------|
|  | 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. ( $\pm 10\%$ ) 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.  
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

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.

The system designer is warned to consider the failure modes of all