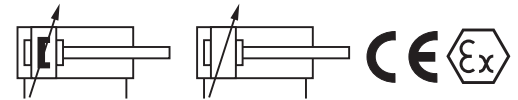


## PRA/842000/M/EX, PRA/842000/EX

### Clean Line cylinder

### Magnetic or non-magnetic piston, double acting

- Ø 32 ... 100 mm
- Cylinder without magnetic switches or bellow are applicable in zones 1 & 2 (gas), 21 & 22 (dust): ATEX Cat. II 2G and 2D  
Cylinder with magnetic switches or bellow in zones 2 & 22: ATEX Cat. II 3G and 3D
- Cylinder and mounting conform to ISO 15552
- With food grade lubricant (white-listed NSF H1 lubricant and certified according to ISO 21469)
- Smooth and spherical corrosion resistant design conforms to EN 1672-2, accepted in the food industry
- 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 dimension 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)

**Ambient temperature:**  
-20° ... +60°C max. (-4° ... +140°F)  
Details see page 4

**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)

**ATEX marking:**  
Details see page 4

**Switching voltage:**  
see page 15 and 16

**Protection class:**  
IP67

**Materials:**  
Profile barrel: anodised aluminium,  
End covers: pressure diecast anodised aluminium  
Piston rod: stainless steel, see page 3  
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             | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |
| 125             | •                  | •  | •  | •   | •   | •   | •   | •   | •   | •   | •   |

Explosion protection according ATEX directive 2014/34/EU  
EN ISO 80079 Non-electrical equipment for potentially explosive atmospheres



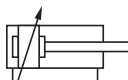
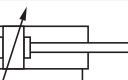
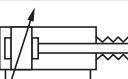
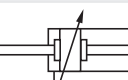
|                                                         |                                |                                                    |            |                    |
|---------------------------------------------------------|--------------------------------|----------------------------------------------------|------------|--------------------|
| Range of application                                    |                                | All range of application other than mines          |            |                    |
| Equipment group                                         |                                | II                                                 |            |                    |
| Potentially explosive atmosphere                        |                                | Mixture of air and gases, vapours, mists ➔ G (gas) |            |                    |
| (combustible materials)                                 |                                | Dust/air - mixture ➔ D (dust)                      |            |                    |
| Probability risk for a potentially explosive atmosphere |                                | Continuous or long-term or frequent                | Occasional | Rarely and briefly |
| Equipment categories                                    |                                | 1                                                  | 2          | 3                  |
| Equipment safety                                        |                                | very high                                          | high       | normal             |
| Gas                                                     | Equipment-identification Ex... | Ex II 1G                                           | Ex II 2G   | Ex II 3G           |
|                                                         | ATEX-zone                      | Zone 0                                             | Zone 1     | Zone 2             |
| Dust                                                    | Equipment-identification Ex... | Ex II 1D                                           | Ex II 2D   | Ex II 3D           |
|                                                         | ATEX-zone                      | Zone 20                                            | Zone 21    | Zone 22            |

Equipment identification for IMI Norgren pneumatic cylinder:  
(Example for standard cylinder)

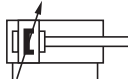
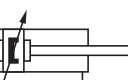
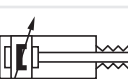
 II 2G Ex h IIC T4 Gb  
II 2D Ex h IIIC T120°C Db

|                                  |              |                                                                     |
|----------------------------------|--------------|---------------------------------------------------------------------|
| Equipment group:                 | II           | All application other than mines                                    |
| Equipment categorie:             | 2            | High level of equipment safety                                      |
| Usability for zones:             | G and D      | Gas and dust                                                        |
| Explosions groups                | IIC and IIIC | Max. ignitability gas- and dust groups                              |
| Temperature class for gas:       | T4           | Max. surface temperature 135°C                                      |
| Temperature data for dust:       | 120°C        | Max. surface temperature                                            |
| Equipment Protection Level (EPL) | Gb and Db    | Gas and dust, save by normal operation and expected equipment fault |

## Cylinder variants - non-magnetic piston

| Symbol                                                                            | R | S | C | D | V | E | Model<br>Non-magnetic piston | Description                                                                                                                                             | Dimensions<br>Page |
|-----------------------------------------------------------------------------------|---|---|---|---|---|---|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|  | • | • | • | • | • | • | P../842000/EX                | Standard cylinder                                                                                                                                       | 8                  |
|                                                                                   | • | • | • | • |   |   | P../842000/W1/EX             | Cylinder with special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand,hoar-frost or ice)                              |                    |
|  | • | • | • | • | • | • | P../842000/IU/EX             | Cylinder with extended piston rod                                                                                                                       | 8                  |
|                                                                                   | • | • | • | • |   |   | P../842000/W5/EX             | Cylinder with extended piston rod and special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice)     |                    |
|  | • | • | • | • | • | • | P../842000/G/EX              | Cylinder with piston rod bellows                                                                                                                        | 10                 |
|  | • | • | • | • | • | • | P../842000/J/EX              | Cylinder with double ended piston rod                                                                                                                   | 10                 |
|                                                                                   | • | • | • | • |   |   | P../842000/W3/EX             | Cylinder with double ended piston rod and special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice) |                    |

## Cylinder variants - magnetic piston

| Symbol                                                                              | R | S | C | D | V | E | Model<br>magnetic piston | Description                                                                                                                                                                        | Dimensions<br>Page |
|-------------------------------------------------------------------------------------|---|---|---|---|---|---|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|    | • | • | • | • | • | • | P../842000/MI*/EX        | Standard cylinder with magnet piston and switch                                                                                                                                    | 9                  |
|                                                                                     | • | • | • | • |   |   | P../842000/W2*/EX        | Cylinder with magnet piston and switch, with special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand,hoar-frost or ice)                          |                    |
|   | • | • | • | • | • | • | P../842000/MU*/EX        | Cylinder with magnet piston and switch, with extended piston rod                                                                                                                   | 9                  |
|                                                                                     | • | • | • | • |   |   | P../842000/W6*/EX        | Cylinder with magnet piston and switch, with extended piston rod and special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice) |                    |
|  | • | • | • | • | • | • | P../842000/MG*/EX        | Cylinder with magnet piston and switch, with piston rod bellows                                                                                                                    | 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

Stainless steel (martensitic);  
Standard wiper seal

Stainless steel (austenitic);  
Standard wiper seal

Hard chromium plated;  
Standard wiper seal

Stainless steel (austenitic);  
hard chromium plated;  
Standard wiper seal

Stainless steel (austenitic);  
Smooth wiper seal

Stainless steel (austenitic);  
hard chromium plated;  
Smooth wiper seal

Substitute

R

S

C

D

V

E

Substitute

Cylinder Ø (mm)

032, 040, 050, 063, 080, 100

P★A/842★/★/★/EX/★/★/★

Strokes (mm)

2000 max.

Switch variants

Without

Adjustable reed switch position

Adjustable solid state switch position

Substitute

None

3

4

Variants (magnetic piston)

Standard

Special wiper seal

Piston rod bellow

Extended piston rod

Special wiper seal, extended piston rod

Substitute

MI

W2

MG

MU

W6

P★/842★/W6\*/EX/★/★/★

Extension (mm)

Variants (non-magnetic piston)

Standard

Double ended piston rod

Special wiper seal

Double ended piston rod,  
special wiper seal

Piston rod bellow

Extended piston rod

Special wiper seal, extended piston rod

Substitute

None

J

W1

W3

G

IU

W5

P★/842★/W5\*/EX/★/★/★

Extension (mm)

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

ATTENTION:

The setting of magnetic switches in a closed profil barrel forms an ATEX assembly:

- Each part is separate classified according ATEX for use in potentially explosive atmospheres.
- The resulting range of approved applications for the module corresponds to that of the individual part assigned to the lowest category.
- The result concerns the device category, potentially explosive atmosphere G or D, max. surface temperature and explosion classification if applicable.

| Cylinder variants *1) |                     | Magnetic switches *2)                         | Resulting ATEX-Data |                  |
|-----------------------|---------------------|-----------------------------------------------|---------------------|------------------|
| Magnetic piston       | Non-magnetic piston |                                               | Zones               | T amb.           |
| MI                    | ---                 | Without                                       | 1 and 21            | -20...+60°C max. |
| W2                    | W1                  | Reed: M/50/LXU/5V<br>Solid state: M/50/EXP/5V | 2 and 22            | -20...+50°C max. |
| MU                    | IU                  |                                               |                     | -20...+60°C max. |
| W6                    | W5                  |                                               |                     | -20...+50°C max. |
| MG                    | G                   | Without                                       |                     | -20...+60°C max. |
|                       |                     | Reed: M/50/LXU/5V<br>Solid state: M/50/EXP/5V |                     | -20...+50°C max. |

\*1) ATEX marking for the mechanical cylinder without magnetic switches:

- Ex

II 2G Ex h IIC T4 Gb
- Ex

II 2D Ex h IIIC T120°C Db
- Ex

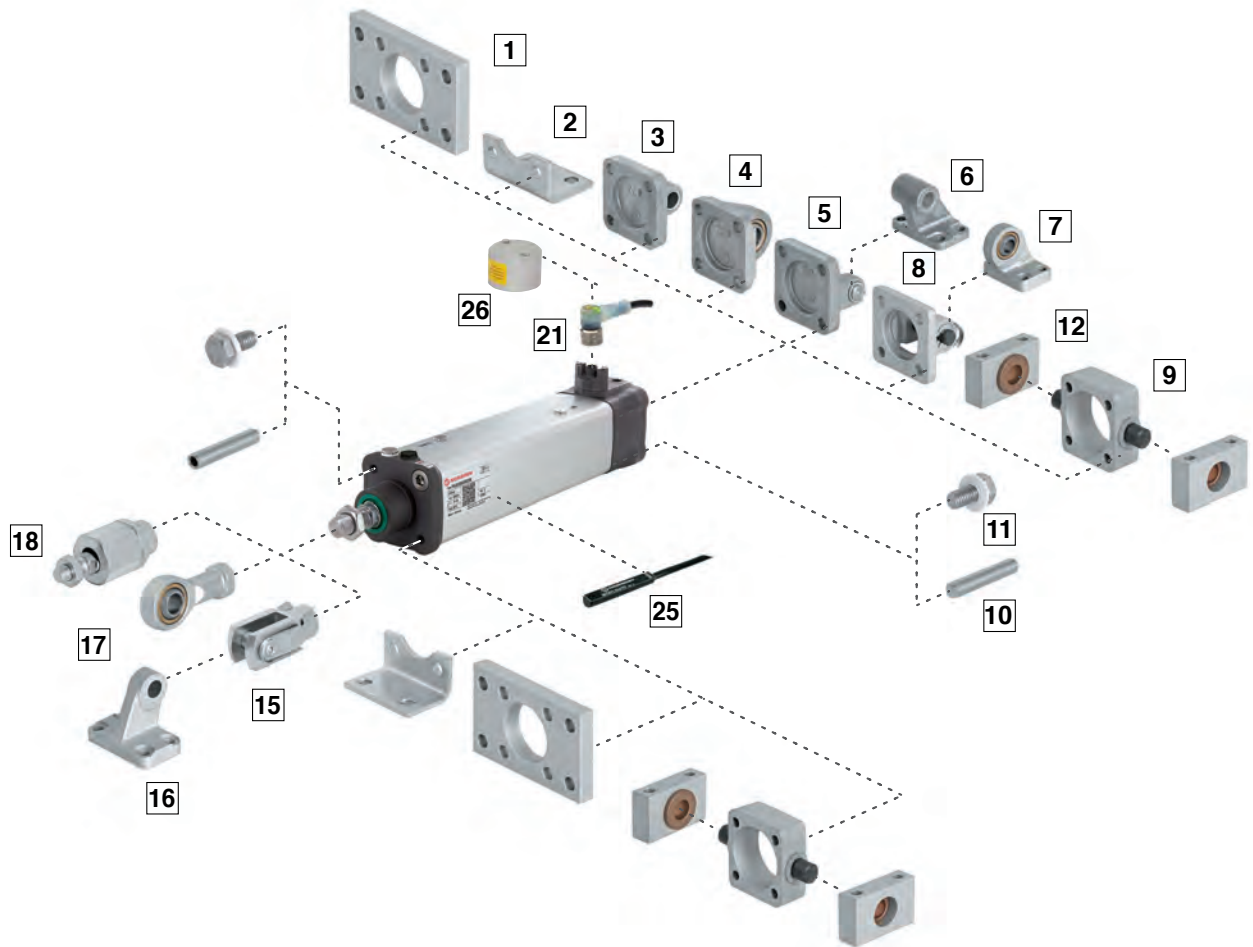
Cylinder with bellows:
- Ex

II 3G Ex h IIC T4 Gc
- Ex

II 3D Ex h IIIC T120°C Dc

\*2) ATEX marking of magnetic switches see Page 15 and 16.

## Mountings and service kit



| Position | Style | Standard                                                                               | Corrosion protected                                                                                                                                                                | Stainless steel                                                                                                                     |
|----------|-------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1        | B, G  | Clear anodised aluminium                                                               | Clear anodised aluminium. Screws: A2                                                                                                                                               | X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2                                                                                      |
| 2        | C     | Galvanized steel (ø 32 ... 63 mm)<br>Painted steel (ø 80 & 100 mm)                     | —                                                                                                                                                                                  | X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2                                                                                      |
| 3        | R     | Diecast aluminium                                                                      | Black corrosion protected diecast aluminium. Certified for the food industry. Screws: A2                                                                                           | —                                                                                                                                   |
| 4        | UR    | Galvanized aluminium<br>Inner ring: steel<br>Outer ring: brass                         | Black corrosion protected diecast aluminium<br>Certified for the food industry<br>Inner ring: stainless Steel (austenitic)<br>Outer ring: nickel plated hardened steel             | —                                                                                                                                   |
| 5        | D     | Diecast aluminium<br>Bolt: galvanized steel (martensitic)<br>Circlip: galvanized steel | Black corrosion protected diecast aluminium<br>Certified for the food industry<br>Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303)<br>Circlip: Stainless steel (martensitic). Screws: A2 | X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2<br>Bolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303)                                        |
| 6        | SW    | Diecast aluminium                                                                      | Black corrosion protected diecast aluminium<br>Certified for the food industry                                                                                                     | X 6 Cr Ni 18 9 (1.4308; AISI 304)                                                                                                   |
| 7        | US    | Galvanized aluminium. Inner ring: steel<br>Outer ring: brass                           | —                                                                                                                                                                                  | —                                                                                                                                   |
| 8        | D2    | Painted cast iron. Bolt: stainless steel (martensitic)<br>Circlip: galvanized steel    | —                                                                                                                                                                                  | —                                                                                                                                   |
| 9        | FH    | Cast iron                                                                              | —                                                                                                                                                                                  | —                                                                                                                                   |
| 10       | A     | Galvanized steel                                                                       | —                                                                                                                                                                                  | —                                                                                                                                   |
| 11       | Screw | —                                                                                      | —                                                                                                                                                                                  | X 10 Cr Ni S 18 9 (1.4305, AISI 303)                                                                                                |
| 12       | S     | Clear anodised aluminium<br>Bearing: brass                                             | —                                                                                                                                                                                  | —                                                                                                                                   |
| 15       | F     | Galvanized steel<br>Bolt: galvanized steel<br>Circlip: Galvanized steel                | Nickel plated steel<br>Circlip: X 10 Cr Ni S 18 9 (1.4305, AISI 303)<br>Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303)                                                                 | X 10 Cr Ni S 18 9 (1.4305; AISI 303)<br>Bolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303)<br>Eyebolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303) |
| 16       | SS    | Painted cast iron                                                                      | —                                                                                                                                                                                  | —                                                                                                                                   |
| 17       | UF    | Galvanized steel. Inner ring: steel<br>Outer ring: brass                               | Nickel plated steel. Inner ring: stainless steel (austenitic)<br>Outer ring: nickel plated hardened steel.                                                                         | X 10 Cr Ni S 18 9 (1.4305; AISI 303), Inner ring X 105 Cr Co Mo 18-2 (1.4528),<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>                                                 | <b>Plug protection</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 and 16                                                           | <b>26</b>                                                                             |
| 32                         | QA/8032/41                                                                          | M/P19931                                                                            | M/P19493                                                                            | QM/8025/32                                                                          | QA/8032/33                                                                          | M/P40310                                                                             |                                                                                       |                                                                                       | M/P74929                                                                              |
| 40                         | QA/8040/41                                                                          | M/P19932                                                                            | M/P19494                                                                            | QM/8040/32                                                                          | QA/8040/33                                                                          | M/P40311                                                                             |                                                                                       |                                                                                       | M/P74929                                                                              |
| 50                         | QA/8040/41                                                                          | M/P19933                                                                            | M/P19495                                                                            | QM/8050/32                                                                          | QA/8050/33                                                                          | M/P40312                                                                             |                                                                                       |                                                                                       | M/P74929                                                                              |
| 63                         | QA/8063/41                                                                          | M/P19934                                                                            | M/P19496                                                                            | QM/8050/32                                                                          | QA/8063/33                                                                          | M/P40313                                                                             |                                                                                       |                                                                                       | M/P74929                                                                              |
| 80                         | QA/8063/41                                                                          | M/P19935                                                                            | M/P19497                                                                            | QM/8080/32                                                                          | QA/8080/33                                                                          | M/P40314                                                                             |                                                                                       |                                                                                       | M/P74929                                                                              |
| 100                        | QA/8100/41                                                                          | M/P19936                                                                            | M/P19498                                                                            | QM/8080/32                                                                          | QA/8100/33                                                                          | M/P40315                                                                             |                                                                                       |                                                                                       | M/P74929                                                                              |
| <b>Corrosion protected</b> |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |
| 32                         | —                                                                                   | —                                                                                   | M/P40459                                                                            | PVQM/8025/32                                                                        | PVQA/8032/33                                                                        | —                                                                                    | —                                                                                     |                                                                                       |                                                                                       |
| 40                         | —                                                                                   | —                                                                                   | M/P40460                                                                            | PVQM/8040/32                                                                        | PVQA/8040/33                                                                        | —                                                                                    | —                                                                                     |                                                                                       |                                                                                       |
| 50                         | —                                                                                   | —                                                                                   | M/P40461                                                                            | PVQM/8050/32                                                                        | PVQA/8050/33                                                                        | —                                                                                    | —                                                                                     |                                                                                       |                                                                                       |
| 63                         | —                                                                                   | —                                                                                   | M/P40462                                                                            | PVQM/8050/32                                                                        | PVQA/8063/33                                                                        | —                                                                                    | —                                                                                     |                                                                                       |                                                                                       |
| 80                         | —                                                                                   | —                                                                                   | M/P40463                                                                            | PVQM/8080/32                                                                        | PVQA/8080/33                                                                        | —                                                                                    | —                                                                                     |                                                                                       |                                                                                       |
| 100                        | —                                                                                   | —                                                                                   | M/P40464                                                                            | PVQM/8080/32                                                                        | PVQA/8100/33                                                                        | —                                                                                    | —                                                                                     |                                                                                       |                                                                                       |
| <b>Stainless steel</b>     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |
| 32                         | —                                                                                   | —                                                                                   | M/P72288                                                                            | KQM/8032/32                                                                         | —                                                                                   | —                                                                                    | PVQA/882032/88                                                                        |                                                                                       |                                                                                       |
| 40                         | —                                                                                   | —                                                                                   | M/P72289                                                                            | KQM/8040/32                                                                         | —                                                                                   | —                                                                                    | PVQA/882032/88                                                                        |                                                                                       |                                                                                       |
| 50                         | —                                                                                   | —                                                                                   | M/P72290                                                                            | KQM/8050/32                                                                         | —                                                                                   | —                                                                                    | PVQA/882050/88                                                                        |                                                                                       |                                                                                       |
| 63                         | —                                                                                   | —                                                                                   | M/P72291                                                                            | KQM/8050/32                                                                         | —                                                                                   | —                                                                                    | PVQA/882050/88                                                                        |                                                                                       |                                                                                       |
| 80                         | —                                                                                   | —                                                                                   | M/P72292                                                                            | KQM/8080/32                                                                         | —                                                                                   | —                                                                                    | PVQA/882080/88                                                                        |                                                                                       |                                                                                       |
| 100                        | —                                                                                   | —                                                                                   | M/P72293                                                                            | KQM/8080/32                                                                         | —                                                                                   | —                                                                                    | PVQA/882080/88                                                                        |                                                                                       |                                                                                       |

M12 cables

Cable length

Plug with moulded cable  
IP 67

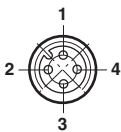


(m)

21

|   |                 |
|---|-----------------|
| 5 | 052305300000000 |
|---|-----------------|

Wiring diagram for M12 male connector



| Pin | Features           | Colour |
|-----|--------------------|--------|
| 1   | 10 ... 30 V d.c.   | Brown  |
| 2   | Signal (outstroke) | White  |
| 3   | Not used / 0V      | Blue   |
| 4   | Signal (instroke)  | Black  |

Service kit

Service Kit



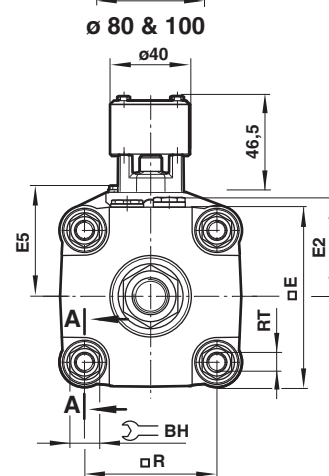
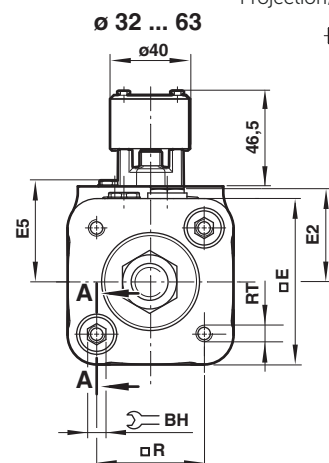
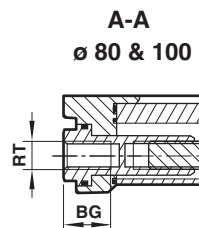
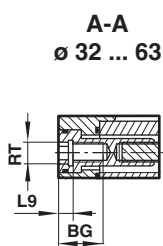
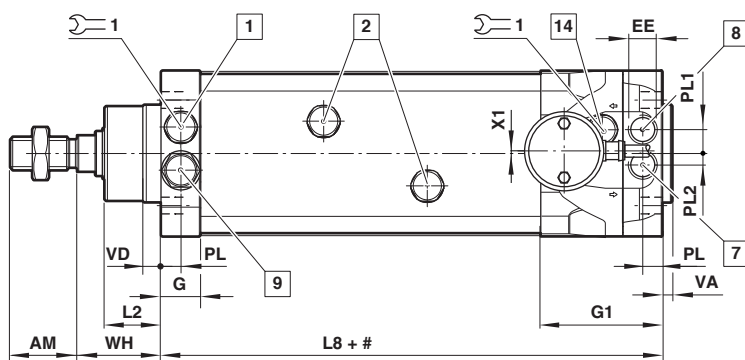
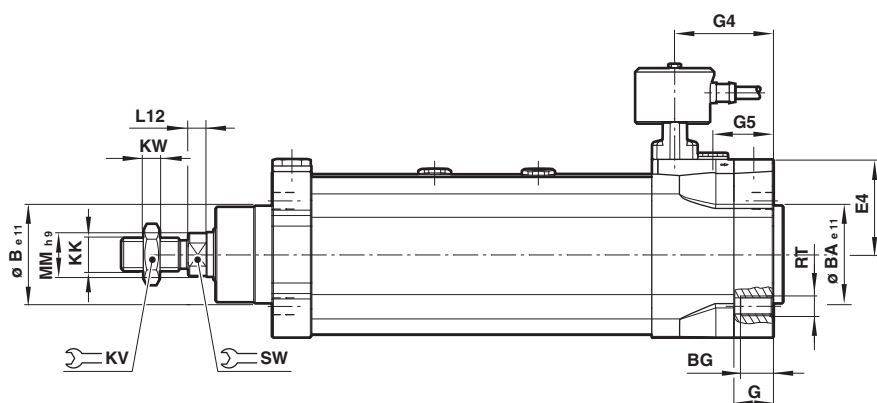
Cyl.  
Ø

|     |                |
|-----|----------------|
| 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; magnetic piston

Dimensions in mm  
Projection/First angle



## # 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

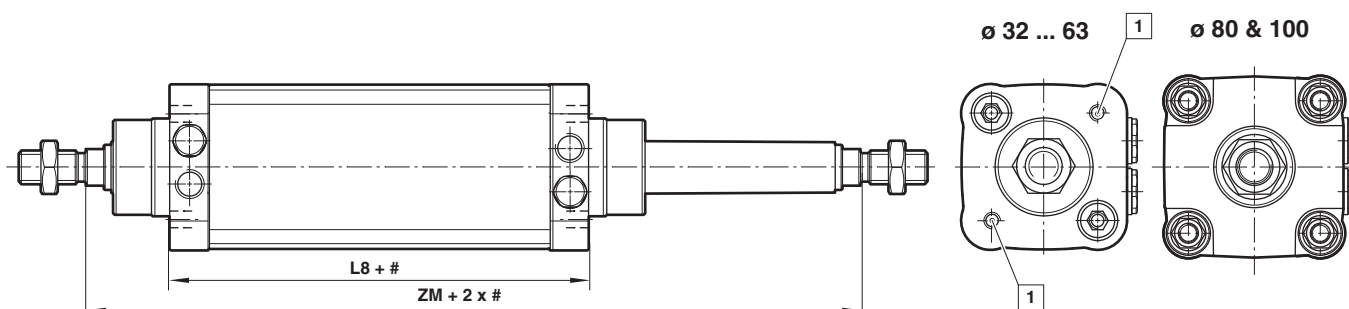
| Cyl Ø | AM  | Ø Be11 | Ø BAe11 | BG   | BH  | □ E  | E2   | E4   | E5   | EE   | G    | G1                                                                                  | G4                                                                                  | G5                                                                                  | 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 | □ R  | RT   | VA   | VD   | WH   | X1   |  |  |  | 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+/EX/* |     |    |
| 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+/EX/* |     |    |
| 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+/EX/* |     |    |
| 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+/EX/* |     |    |
| 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+/EX/* |     |    |
| 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+/EX/* |     |    |

\* Please insert standard stroke length  
+ Magnetically switch variants

## Cylinder variants

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

Dimensions in mm  
Projection/First angle



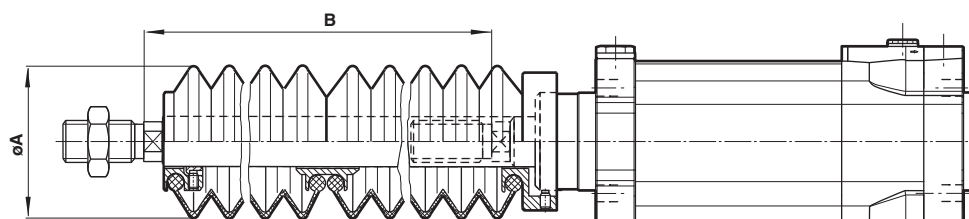
| Cyl. Ø | L8  | ZM  | Model<br>Non-magnetic piston |
|--------|-----|-----|------------------------------|
| 32     | 94  | 146 | PRA/842032/J/EX/*            |
| 40     | 105 | 165 | PRA/842040/J/EX/*            |
| 50     | 106 | 180 | PRA/842050/J/EX/*            |
| 63     | 121 | 195 | PRA/842063/J/EX/*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

# Stroke

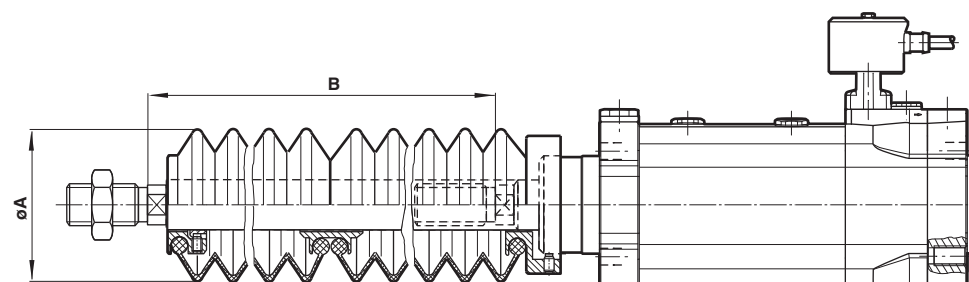
1 Two threads can't be used for mountings

\* Please insert standard stroke length

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



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



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

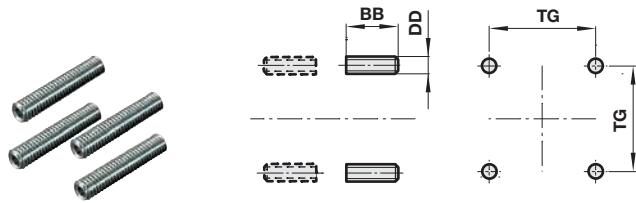
\* Please insert standard stroke length

+ Magnetically switch variants

## Mountings

### Front or rear stud mounting A

Conforms to ISO 15552, type MX1

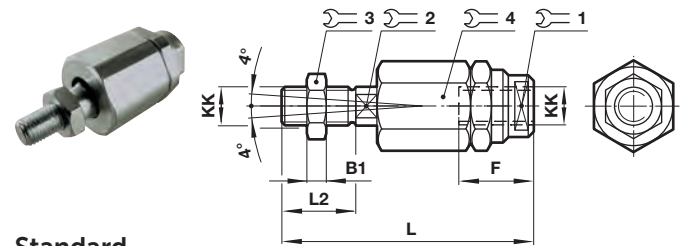


#### Standard

| 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 |

### Piston rod swivel AK

Dimensions in mm  
Projection/First angle

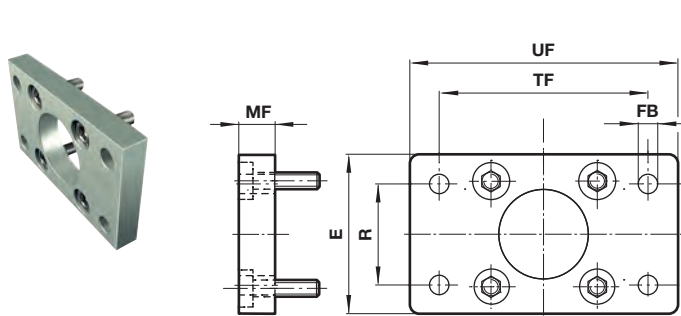


#### Standard

| 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 |

### Front flange B, G

Conforms to ISO 15552, type MF1 and MF2

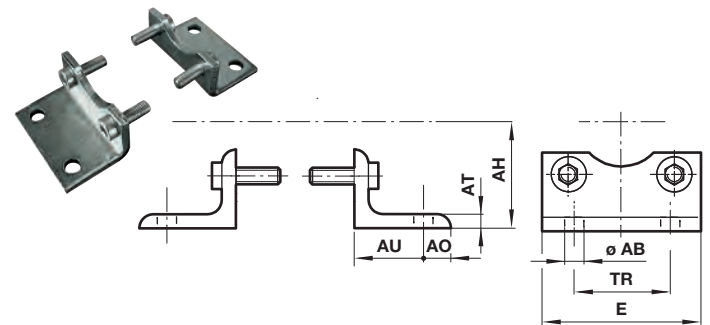


#### Standard

| 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  |

### Foot mounting C

Conforms to ISO 15552, type MS1

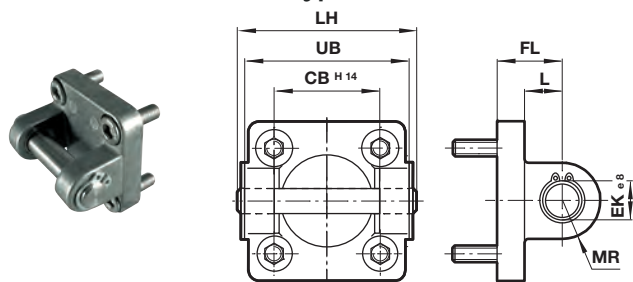


#### Standard

| 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

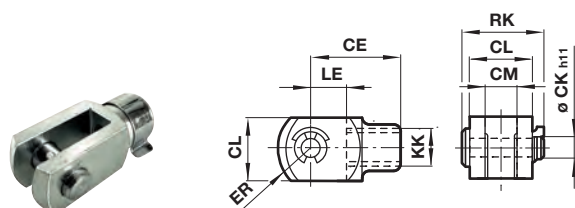


### Standard

| 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   |
| Corrosion protected version |        |         |    |    |     |    |     |      |              |
| 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 |
| Stainless steel             |        |         |    |    |     |    |     |      |              |
| 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



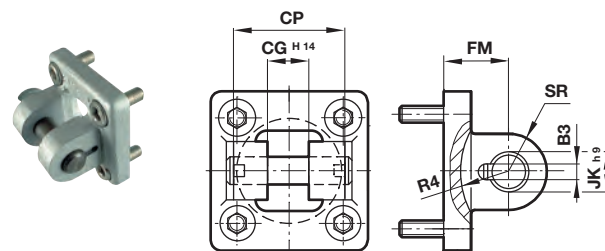
### Standard

| 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   |
| Corrosion protected version |          |    |         |    |    |    |    |      |      |              |
| 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 |
| Stainless steel             |          |    |         |    |    |    |    |      |      |              |
| 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

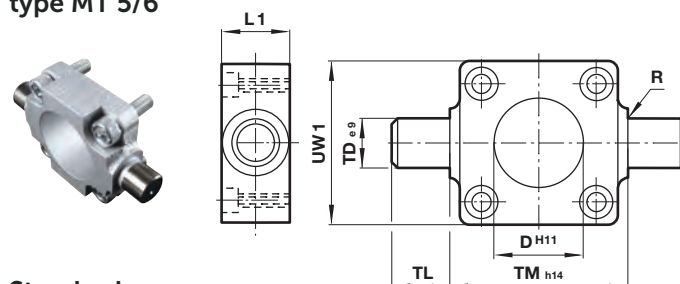


### Standard

| 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

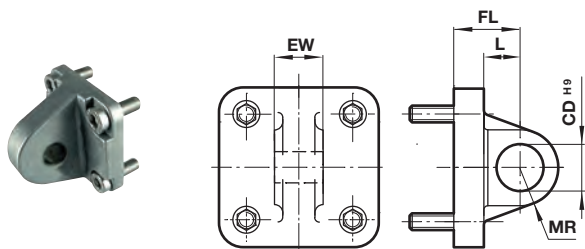


### Standard

| 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

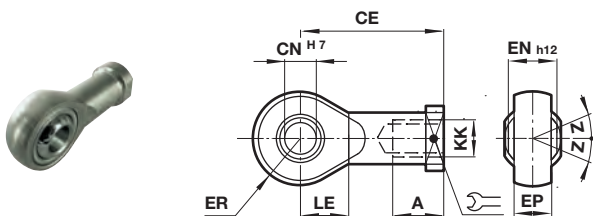


### Standard

| 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



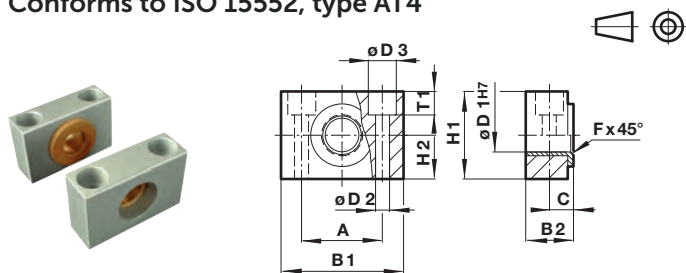
### Standard

| 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

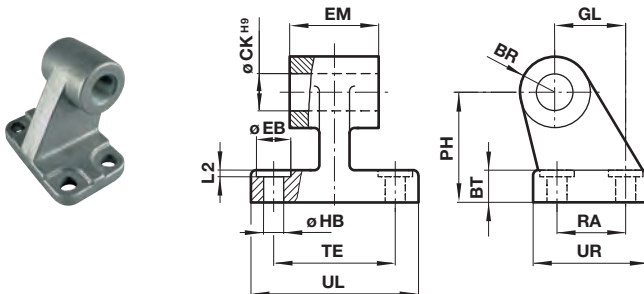


### Standard

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

## Wide hinge SW

Conforms to ISO 15552, type AB7

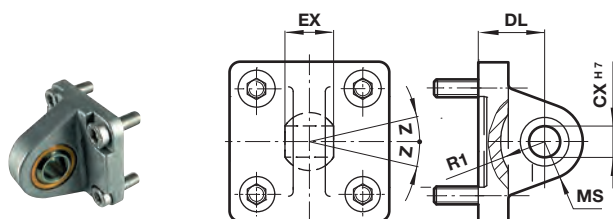


### Standard

| 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

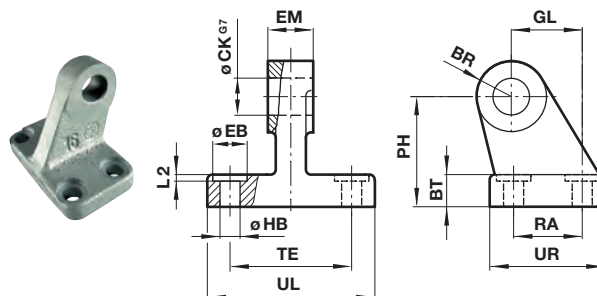


### Standard

| 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

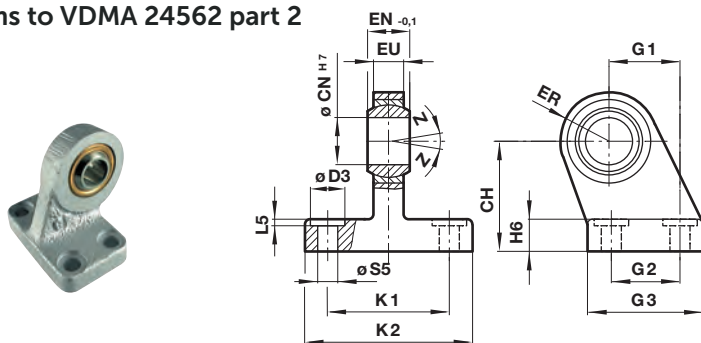


### Standard

| 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 |

- ATEX - Magnetically operating switch, reed contact
- LED indicator
- CE verified
- Suitable for all cylinder ranges with magnetic piston



## Technical features

**Operation:**  
Normal open with LED (yellow)

**Switching voltage (U<sub>b</sub>):**  
10 ... 240 V a.c./170 V d.c.

**Switching voltage output:**  
U<sub>b</sub> - 2,7 V

**Switching current (see graph overleaf):**  
0,18 A max.

**Switching power:**  
10 W/10 VA max.

**Contact resistance:**  
150 mΩ

**Response time:**  
1,8 ms

**Operating temperature:**  
-20 ... +50°C (-4 ... +122°F)

**Ex-Identification:**  
II 3G Ex nC IIC T5 Gc X  
II 3D Ex tc IIIC T120°C Dc X

**Protection rating (EN 60529):**  
IP67

**Cable type:**  
PVC 2 x 0,25 mm<sup>2</sup>

**Cable length:**  
5 m

**Electromagnetic compatibility according to:**  
EN 60947-5-2

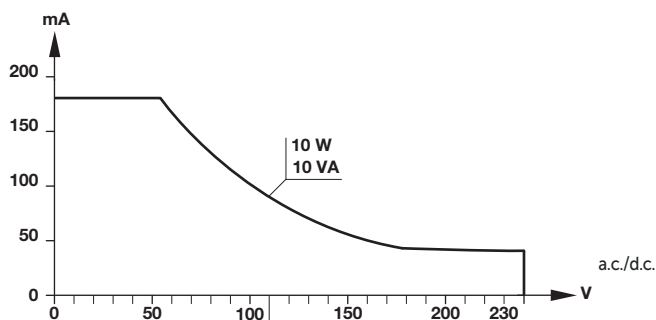
**Materials:**  
Body: plastic  
Cable: see table below

## Technical data - Reed switches - additional information see data sheet en 4.3.015

| Symbol                                                                              | Voltage<br>(V a.c.) (V d.c.)               | Current maximum<br>(mA) | Function | Operating temperature<br>(°C) | LED | Protection class | Cable length<br>(m) | Cable type   | Weight<br>(g) | Model       |
|-------------------------------------------------------------------------------------|--------------------------------------------|-------------------------|----------|-------------------------------|-----|------------------|---------------------|--------------|---------------|-------------|
|  | 10 ... 240 (V a.c.)<br>10 ... 170 (V d.c.) | 180                     | Closer   | -20 ... +50                   | •   | IP67             | 5                   | PVC 2 x 0,25 | 40            | M/50/LXU/5V |

Color code: BN = brown, BU = blue

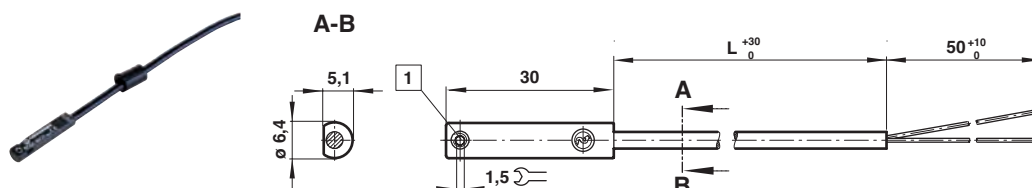
## Switching current and switching voltage



## Dimensions

Cable length L = 5 m

Dimensions in mm  
Projection/First angle



1 Fixing screw

## ATTENTION:

The setting of magnetic switches on a cylinder barrel forms an ATEX assembly:

- Each part is separate classified according ATEX for use in potentially explosive atmospheres.
- The resulting range of approved applications for the module corresponds to that of the individual part assigned to the lowest category.
- The result concerns the device category, potentially explosive atmosphere G or D, max. surface temperature and explosion classification if applicable.

- ATEX - Magnetically operating switch, solid state
- Suitable for all cylinder ranges with magnetic piston
- LED indicator
- Resistant, reliable switching with a very fast response time
- Particularly suited for use in high levels of vibration
- CE verified
- UL certificated



### Technical features

Operation:  
PNP-output with LED (yellow)

Switching voltage (U<sub>b</sub>):  
10 ... 30 V d.c.

Switching voltage output:  
< 2,5V

Switching current (see graph):  
150 mA max.

Switching power:  
4,5 W max.

Response time:  
< 0,1 ms

Switching frequency:  
1 kHz

Operating temperatur:  
-20 ... +50°C (-4 ... +122°F)

Ex-Identification:  
II 3G Ex ec IIC T4 Gc X  
II 3D Ex tc IIIC T110°C Dc X

Protection rating (EN 60529):  
IP67

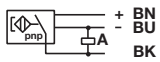
Cable type:  
PVC 3 x 0,14 mm<sup>2</sup>

Cable length:  
5 m

Electromagnetic compatibility  
according to:  
EN 60947-5-2

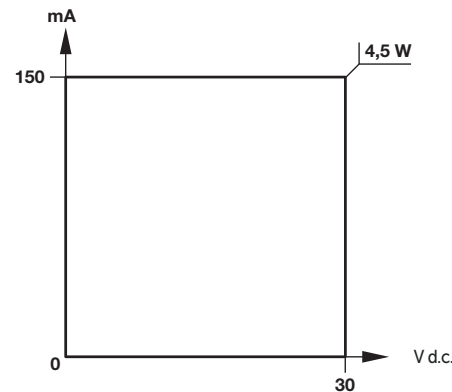
Materials:  
Body: plastic  
Cable: see table below

### Technical data - Solid state switches - additional information see data sheet en 4.3.017

| Symbol                                                                             | Voltage<br>(V d.c.) | Current<br>maximum<br>(mA) | Function | Operating<br>temperature<br>(°C) | LED | Protection<br>class | Cable<br>length<br>(m) | Cable<br>type | Weight<br>(g) | Model       |
|------------------------------------------------------------------------------------|---------------------|----------------------------|----------|----------------------------------|-----|---------------------|------------------------|---------------|---------------|-------------|
|  | 10 ... 30           | 150                        | PNP      | -20 ... +50                      | •   | IP67                | 5                      | PVC 3 x 0,14  | 40            | M/50/EXP/5V |

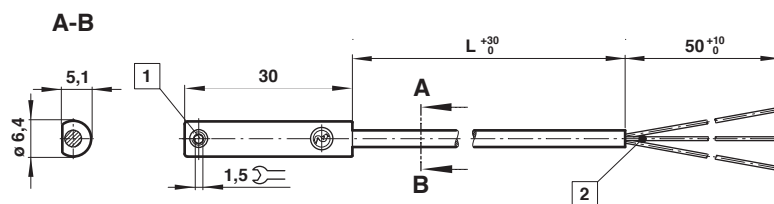
Color code: BK = black, BN = brown, BU = blue

### Switching current and switching voltage



### Dimensions

Cable length L = 5 m



Dimensions in mm  
Projection/First angle



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

### ATTENTION:

The setting of magnetic switches on a cylinder barrel forms an ATEX assembly:

- Each part is separate classified according ATEX for use in potentially explosive atmospheres.
- The resulting range of approved applications for the module corresponds to that of the individual part assigned to the lowest category.
- The result concerns the device category, potentially explosive atmosphere G or D, max. surface temperature and explosion classification if applicable.

## 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.

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

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

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