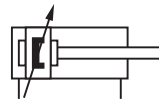


Clean line design

Low friction, long life seals

Standard magnetic piston for full control system versatility

Non-lube operation



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston, adjustable cushioning

Operating pressure:

1 ... 10 bar

Standard strokes:

See below

Non-standard strokes:

On request

Operating temperature:

-20°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials:

Barrel and end covers:

anodized aluminium

Piston rods: stainless steel (martensitic)

Piston and piston rod seals: PUR 'O'-rings: NBR

Technical data

| Cylinder Ø mm | 32 | 40 | 50 | 63 | 80 | 100 |
|--|----------|----------|---------|---------|---------|---------|
| Air ports | G 1/8 | G 1/4 | G 1/4 | G 3/8 | G 3/8 | G 1/2 |
| Piston rod Ø mm | 12 | 16 | 20 | 20 | 25 | 25 |
| Piston rod thread mm | M10x1,25 | M12x1,25 | M16x1,5 | M16x1,5 | M20x1,5 | M20x1,5 |
| Cushion length mm) | 19 | 22 | 24 | 24 | 27 | 34 |
| Theoretical thrusts at 6 bar outstroke N | 482 | 754 | 1178 | 1870 | 3016 | 4710 |
| Theoretical thrusts at 6 bar instroke N | 414 | 633 | 990 | 1680 | 2722 | 4416 |
| Air consumption at 6 bar outstroke l/cm | 0,056 | 0,088 | 0,137 | 0,218 | 0,35 | 0,55 |
| Air consumption at 6 bar instroke l/cm | 0,048 | 0,074 | 0,114 | 0,195 | 0,32 | 0,51 |

Standard strokes

| Cylinder Ø (mm) | Strokes length (mm) | | | | | | | | |
|-----------------|---------------------|----|----|-----|-----|-----|-----|-----|-----|
| | 25 | 50 | 80 | 100 | 125 | 160 | 200 | 250 | 300 |
| 32 | • | • | • | • | • | • | • | • | • |
| 40 | • | • | • | • | • | • | • | • | • |
| 50 | • | • | • | • | • | • | • | • | • |
| 63 | • | • | • | • | • | • | • | • | • |
| 80 | • | • | • | • | • | • | • | • | • |
| 100 | • | • | • | • | • | • | • | • | • |

Cylinder variants

| Symbol | C | S | Model magnetic piston | Description | Dimensions Page |
|--------|---|---|-----------------------|--|-----------------|
| | | | • RM/55401/M | Standard cylinder | 4 |
| | | | • RM/55401/W2 | Cylinder with special wiper/seal (suitable for appl. with cement, plaster (stucco), arizona sand, hoar-frost or ice) | 4 |
| | | | • RM/55401/MU | Cylinder with extended piston rod | 4 |
| | | | • RM/55401/JM | Cylinder with double ended piston rod | 4 |
| | | | • RM/55401/W4 | Cylinder with double ended piston rod and special wiper/seal (suitable for appl. with cement, plaster (stucco), arizona sand, hoar-frost or ice) | 4 |

For the cylinder of alternative options consult our technical service

Option selector

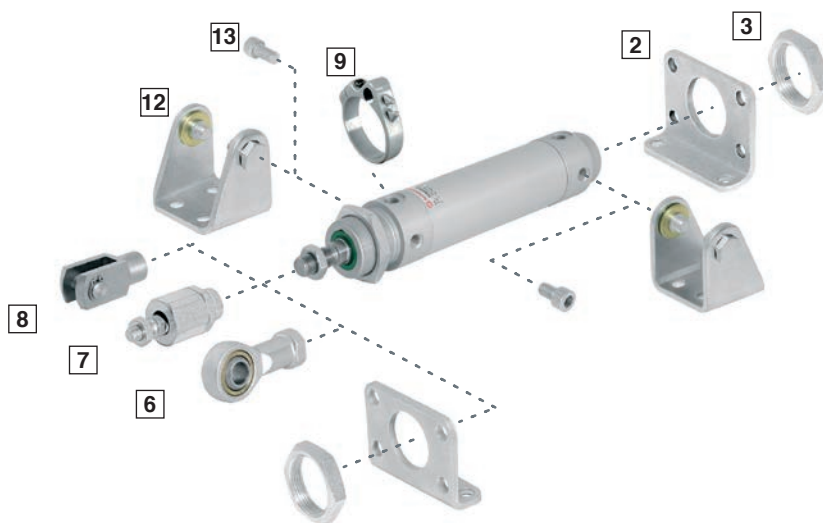
| Piston rod material | Substitute |
|--|------------|
| Stainless steel martensitic (standard) | R |
| Hard chromium plated | C |
| Stainless steel austenitic | S |
| Cylinder Ø (mm) | Substitute |
| 32 | 33 |
| 40 | 41 |
| 50 | 51 |
| 63 | 64 |
| 80 | 81 |
| 100 | 11 |

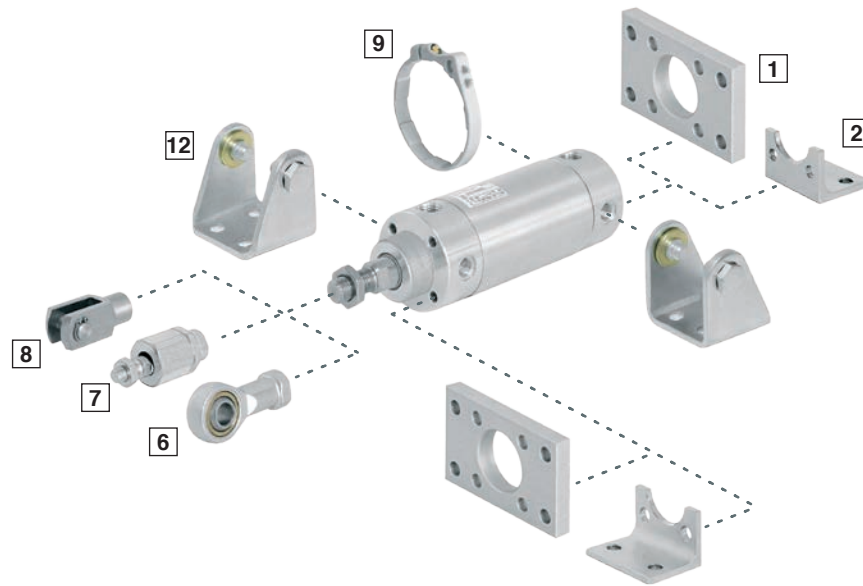
★M/554★*/★*/★*★*

| Strokes (mm) | |
|----------------------------|----------------|
| 3000 max. | |
| Variants (magnetic piston) | Substitute |
| Standard | M |
| Double ended piston rod | JM |
| Extended piston rod | MU |
| *M/554**/MU/***/**** | Extension (mm) |

Mountings

Ø 32 ... 63 mm



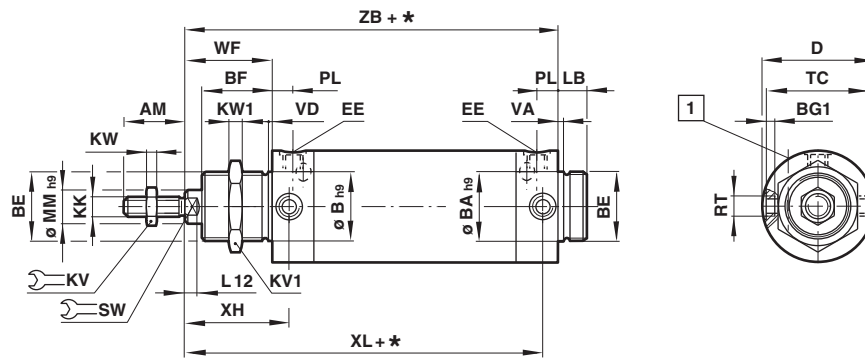
Ø 80 ... 100 mm


| Cylinder | AK | B, G | C | F | H | L | N | UF |
|----------|------------|-------------|-------------|------------|-------------|-------------|----------|------------|
| | | | | | | | | |
| | 7 | 1 | 2 | 8 | 13 | 12 | 3 | 6 |
| | Page 5 | Page 5 | Page 5 | Page 5 | Page 5 | Page 5 | Page 6 | Page 6 |
| Ø (mm) | | | | | | | | |
| 32 | QM/8025/38 | QM/55232/22 | QM/55232/21 | QM/8025/25 | QM/55232/28 | QM/55232/24 | M/P29254 | QM/8025/32 |
| 40 | QM/8040/38 | QM/55240/22 | QM/55240/21 | QM/8040/25 | QM/55240/28 | QM/55240/24 | M/P29255 | QM/8040/32 |
| 50 | QM/8050/38 | QM/55250/22 | QM/55250/21 | QM/8050/25 | QM/55250/28 | QM/55250/24 | M/P29256 | QM/8050/32 |
| 63 | QM/8050/38 | QM/55263/22 | QM/55263/21 | QM/8050/25 | QM/55263/28 | QM/55263/24 | M/P29256 | QM/8050/32 |
| 80 | QM/8080/38 | QM/55480/22 | QM/55480/21 | QM/8080/25 | QM/55480/28 | QM/55480/24 | M/P34806 | QM/8080/32 |
| 100 | QM/8080/38 | QM/55410/22 | QM/55410/21 | QM/8080/25 | QM/55410/28 | QM/55410/24 | M/P34806 | QM/8080/32 |

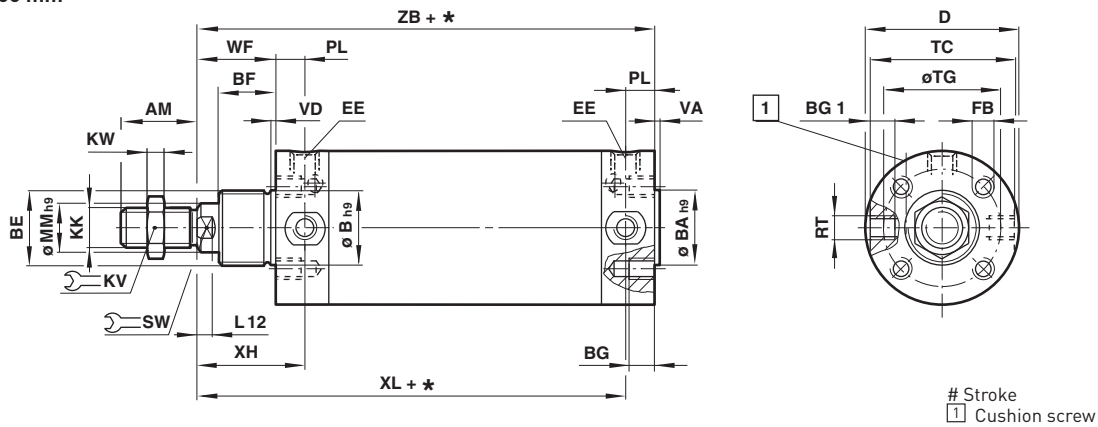
| Cylinder | Switch mounting | Magnetically operated switches | Service kit |
|----------|-----------------|--------------------------------|-------------|
| | | | |
| | 9 | | |
| | Page 6 | Page 7 & 8 | |
| Ø (mm) | | | |
| 32 | QM/33/432/22 | | QM/55433/00 |
| 40 | QM/33/440/22 | | QM/55441/00 |
| 50 | QM/33/450/22 | | QM/55451/00 |
| 63 | QM/33/463/22 | | QM/55464/00 |
| 80 | QM/33/480/22 | | QM/55481/00 |
| 100 | QM/33/100/22 | | QM/55411/00 |

Basic dimensions

Ø 32 ... 63 mm



Ø 80 and 100 mm


 # Stroke
 1 Cushion screw

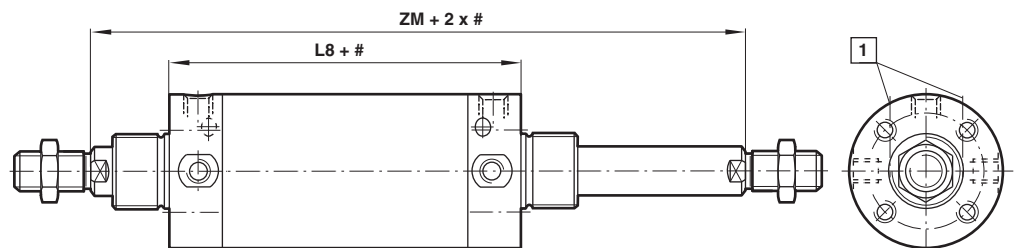
| Ø | AM | Ø B/BAh9 | BE | BF | BG | BG1 | D | EE | FB | KK | ⌀ KV | ⌀ KV1 | KW | KW1 | LB |
|-----|------|----------|------------|------------|------|-------|-------|-------|-----|-------------|-------|-------|------------|---------------|------------|
| 32 | 22 | 30 | M 30 x 1,5 | 30 | - | 6 | 36,5 | G 1/8 | - | M 10 x 1,25 | 17 | 36 | 5 | 8 | 14 |
| 40 | 24 | 38 | M 38 x 1,5 | 35 | - | 8 | 45,5 | G 1/4 | - | M 12 x 1,25 | 19 | 46 | 6 | 10 | 16 |
| 50 | 32 | 45 | M 45 x 1,5 | 38 | - | 9,5 | 55,5 | G 1/4 | - | M 16 x 1,5 | 24 | 55 | 8 | 10 | 18 |
| 63 | 32 | 45 | M 45 x 1,5 | 38 | - | 10 | 69,5 | G 3/8 | - | M 16 x 1,5 | 24 | 55 | 8 | 10 | 18 |
| 80 | 40 | 55 | M 55 x 1,5 | 45 | 14 | 17,5 | 87,5 | G 3/8 | M8 | M 20 x 1,5 | 30 | - | 10 | - | - |
| 100 | 40 | 55 | M 55 x 1,5 | 45 | 14 | 21,5 | 107,5 | G 1/2 | M10 | M 20 x 1,5 | 30 | - | 10 | - | - |
| Ø | L12 | Ø MMh9 | PL | RT | ⌀ SW | Ø TC | TG | VA/VD | WF | XH | XL | ZB | kg at 0 mm | kg per 100 mm | Model |
| 32 | 5,5 | 12 | 9 | M 8 x 1 | 10 | 35 | - | 3 | 38 | 47 | 123 | 132 | 0,40 | 0,14 | RM/55433/* |
| 40 | 7,5 | 16 | 12 | M 10 x 1 | 13 | 44 | - | 3 | 45 | 57 | 142 | 154 | 0,83 | 0,27 | RM/55441/* |
| 50 | 8,5 | 20 | 12 | M 12 x 1,5 | 17 | 54 | - | 3 | 50 | 62 | 152 | 164 | 1,30 | 0,32 | RM/55451/* |
| 63 | 8,5 | 20 | 13 | M 14 x 1,5 | 17 | 67 | - | 3 | 51 | 64 | 159 | 172 | 1,60 | 0,38 | RM/55464/* |
| 80 | 11,5 | 25 | 15 | M 16 x 1,5 | 22 | 85,5 | 70 | 5 | 61 | 76 | 196 | 211 | 3,10 | 0,59 | RM/55481/* |
| 100 | 11,5 | 25 | 18,5 | M 20 x 1,5 | 22 | 105,5 | 80 | 5 | 61 | 79,5 | 200,5 | 219 | 4,60 | 0,68 | RM/55411/* |

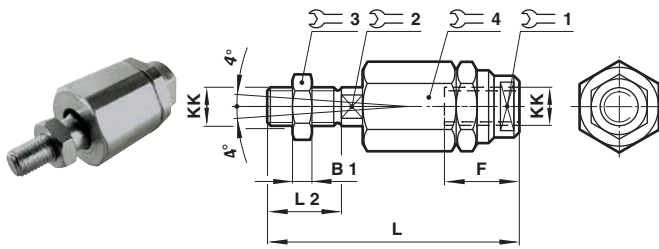
* Please insert stroke length.

Cylinder variants
RM/55401/JM – Double ended piston rod

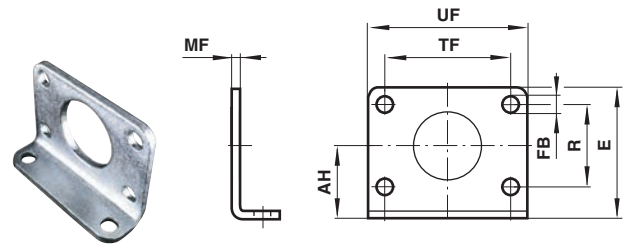
| Ø | L8 | ZM | Model |
|-----|-----|-----|---------------|
| 32 | 94 | 170 | RM/55433/JM/* |
| 40 | 109 | 199 | RM/55441/JM/* |
| 50 | 114 | 214 | RM/55451/JM/* |
| 63 | 121 | 223 | RM/55461/JM/* |
| 80 | 150 | 272 | RM/55481/JM/* |
| 100 | 158 | 280 | RM/55411/JM/* |

* Please insert stroke length.

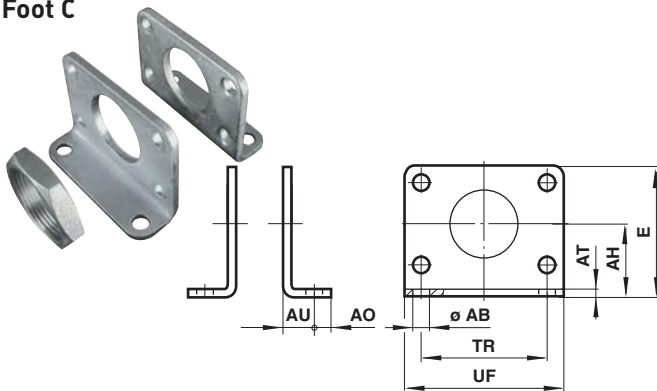

 # Stroke
 1 Cushion screw

Mountings
Piston rod swivel AK


| ∅ | KK | B1 | F | L | L2 | 1 | 2 | 3 | 4 | kg | Model |
|--------|----------|----|----|-----|----|----|----|----|----|------|------------|
| 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 |

Rear flange B, front flange G


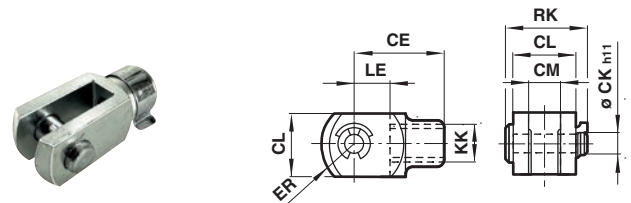
| ∅ | AH | E | ∅ FB | MF | R | TF | UF | kg | Model |
|-----|----|-----|------|----|----|-----|-----|------|-------------|
| 32 | 28 | 49 | 7 | 4 | 28 | 52 | 66 | 0,11 | QM/55232/22 |
| 40 | 33 | 58 | 9 | 5 | 30 | 60 | 80 | 0,19 | QM/55240/22 |
| 50 | 40 | 70 | 9 | 5 | 40 | 70 | 90 | 0,25 | QM/55250/22 |
| 63 | 45 | 80 | 9 | 5 | 50 | 76 | 96 | 0,33 | QM/55263/22 |
| 80 | 56 | 100 | 12 | 8 | - | 120 | 150 | 0,81 | QM/55480/22 |
| 100 | 66 | 120 | 14 | 8 | - | 130 | 170 | 1,10 | QM/55410/22 |

Foot C


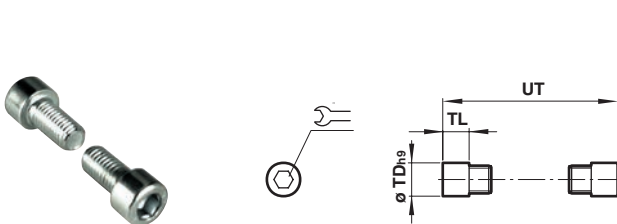
| ∅ | ∅ AB | AH | AO | AT | AU | E | TR | UF | kg | Model |
|-----|------|----|----|----|----|-----|----|-----|------|-------------|
| 32 | 7 | 28 | 7 | 4 | 14 | 49 | 52 | 66 | 0,25 | QM/55232/21 |
| 40 | 9 | 33 | 10 | 5 | 20 | 58 | 60 | 80 | 0,44 | QM/55240/21 |
| 50 | 9 | 40 | 10 | 5 | 20 | 70 | 70 | 90 | 0,59 | QM/55250/21 |
| 63 | 9 | 45 | 10 | 5 | 20 | 80 | 76 | 96 | 0,73 | QM/55263/21 |
| 80 | 12 | 56 | 15 | 5 | 45 | 100 | 63 | 90 | 0,67 | QM/55480/21 |
| 100 | 14 | 66 | 20 | 5 | 45 | 120 | 75 | 113 | 1,00 | QM/55410/21 |

Piston rod clevis F

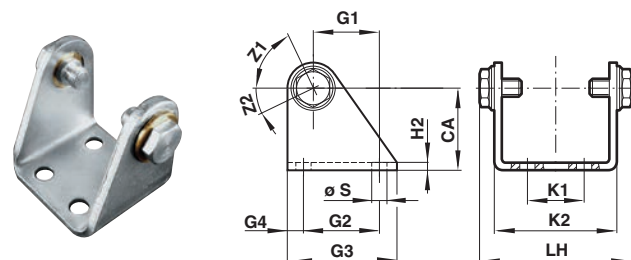
Conforms to DIN ISO 8140



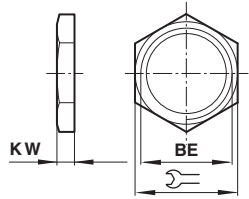
| ∅ | KK | CE | ∅ CKh11 | CL | CM | ER | LE | RK | kg | Model |
|--------|----------|----|---------|----|----|----|----|------|------|------------|
| 32 | M10x1,25 | 40 | 10 | 20 | 10 | 16 | 20 | 28 | 0,09 | QM/8025/25 |
| 40 | M12x1,25 | 48 | 12 | 24 | 12 | 19 | 24 | 32 | 0,13 | QM/8040/25 |
| 50/63 | 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 |

End cover trunnion H


| ∅ | ∅ TDh9 | TL | UT | 1 | kg | Model |
|-----|--------|-----|-------|----|------|-------------|
| 32 | 10 | 8 | 51 | 5 | 0,02 | QM/55232/28 |
| 40 | 12 | 9,5 | 63 | 6 | 0,03 | QM/55240/28 |
| 50 | 14 | 11 | 76 | 6 | 0,05 | QM/55250/28 |
| 63 | 16 | 13 | 93 | 8 | 0,07 | QM/55263/28 |
| 80 | 18 | 13 | 111,5 | 8 | 0,09 | QM/55480/28 |
| 100 | 20 | 13 | 131,5 | 10 | 0,25 | QM/55410/28 |

Rear hinge L


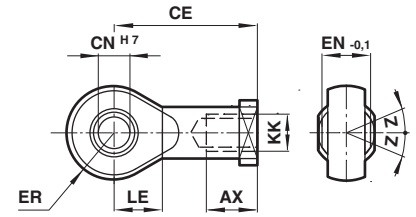
| ∅ | CA | G1 | G2 | G3 | G4 | ∅ S | H2 | K1 | K2 | LH | Z1 | Z2 | Model |
|-----|----|------|----|-----|------|-----|----|----|-------|-------|------|-----|-------------|
| 32 | 35 | 20 | 24 | 40 | 8 | 7 | 4 | 20 | 46,5 | 59,5 | 202° | 36° | QM/55232/24 |
| 40 | 40 | 27 | 30 | 50 | 10 | 9 | 5 | 28 | 56,5 | 71 | 197° | 33° | QM/55240/24 |
| 50 | 45 | 30 | 34 | 54 | 10 | 9 | 5 | 36 | 68,5 | 83 | 196° | 31° | QM/55250/24 |
| 63 | 50 | 34 | 35 | 65 | 15 | 9 | 5 | 42 | 82,5 | 99 | 191° | 25° | QM/55263/24 |
| 80 | 65 | 47,5 | 55 | 80 | 12,5 | 11 | 6 | 55 | 102,5 | 125,5 | 193° | 27° | QM/55480/24 |
| 100 | 77 | 63 | 70 | 100 | 15 | 11 | 6 | 70 | 122,5 | 145,5 | 192° | 27° | QM/55410/24 |

Nose nut N


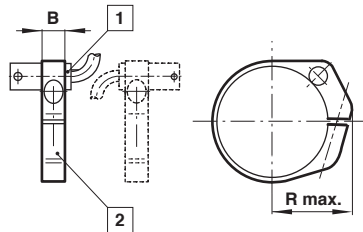
| Ø | BE | | KW | kg | Model |
|--------|-----------|----|----|------|----------|
| 32 | M30 x 1,5 | 36 | 8 | 0,03 | M/P29254 |
| 40 | M38 x 1,5 | 46 | 10 | 0,06 | M/P29255 |
| 50/63 | M45 x 1,5 | 55 | 10 | 0,08 | M/P29256 |
| 80/100 | M55 x 1,5 | 60 | 13 | 0,25 | M/P34806 |

Universal piston rod eye UF

Conforms to DIN ISO 8139



| Ø | Thread KK | AX | CE | Ø CNH7 | EN-0,1 | ER | LE | Z | kg | Model |
|--------|-----------|----|----|--------|--------|----|----|-----|------|------------|
| 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 |

Switch mounting QM/33/XXX/22


- 1** Magnetically operated switch
- 2** Switch mounting bracket

| Ø | B | R max. | Model |
|-----|----|--------|--------------|
| 32 | 10 | 29 | QM/33/432/22 |
| 40 | 10 | 32 | QM/33/440/22 |
| 50 | 10 | 38 | QM/33/450/22 |
| 63 | 10 | 46 | QM/33/463/22 |
| 80 | 12 | 54 | QM/33/480/22 |
| 100 | 10 | 59 | QM/33/100/22 |

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

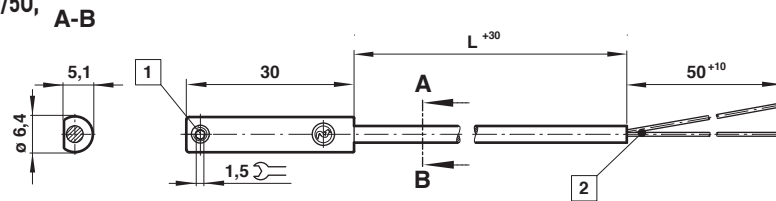
| Symbol | Voltage (V a.c.) (V d.c.) | Current max. (mA) | Function | Temperature (°C) | LED | Protection class | Features | Cable length (m) | Cable type | Weight (g) | Model | |
|----------------|---------------------------|-------------------|----------|------------------|--------------|------------------|----------|------------------|------------|------------------|-------|-----------------|
| ± BN | 10 ... 240 | 10 ... 170 | 180 | Closer | -25 ... +80 | • | IP66 | — | 2, 5 or 10 | PVC 2 x 0,25 | 37 | M/50/LSU/*V |
| ~ BU | 10 ... 240 | 10 ... 170 | 180 | Closer | -25 ... +80 | • | IP66 | — | 5 | PUR 2 x 0,25 | 37 | M/50/LSU/5U |
| BN BU | 10 ... 240 | 10 ... 170 | 180 | Closer | -25 ... +150 | — | IP66 | — | 2 | Silicon 2 x 0,25 | 37 | TM/50/RAU/2S |
| BK BU BN | 10 ... 240 | 10 ... 170 | 180 | Changeover | -25 ... +80 | — | IP66 | — | 5 | PVC 3 x 0,25 | 37 | M/50/RAC/5V |
| ± BN 4 ~ BK | 10 ... 60 | 10 ... 60 | 180 | Closer | -25 ... +80 | • | IP66 | Plug M8 x 1 | 0,3 | PVC 3 x 0,25 | 16 | M/50/LSU/CP *1) |

* Insert cable length; *1) Plug-in connector see page 11; Color code: BK = black, BN = brown, BU = blue

Dimensions

**M/50/LSU/*V, M/50/LSU/5U,
TM/50/RAU/2S**

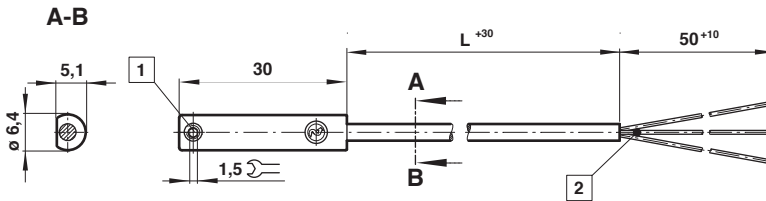
Cable length L =
2, 5 or 10 m



- 1 Fixing screw
- 2 + BN = brown
- BU = blue
(output)

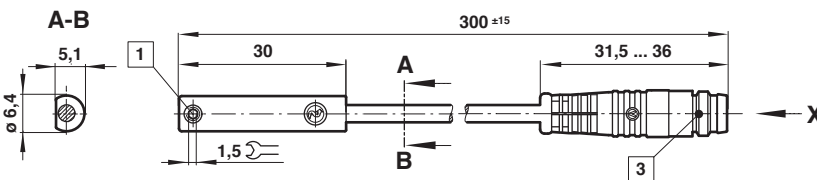
M/50/RAC/5V

Cable length
L = 5 m



- 1 Fixing screw
- 2 - BK = black
+ BN = brown
- ≠BU = blue

M/50/LSU/CP



- 1 Fixing screw
- 3 Plug M8x1
- Color code
BK = black
BN = brown
BU = blue

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

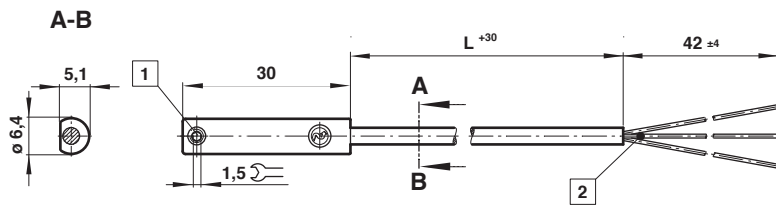
| Symbol | Voltage (V d.c.) | Current max. (mA) | Function | Temperature (°C) | LED | Protection class | Features | Cable length (m) | Cable type | Weight (g) | Model |
|--------|------------------|-------------------|----------|------------------|-----|------------------|--------------|------------------|--------------|------------|-----------------|
| | 10 ... 30 | 150 | PNP | -40 ... +80 | • | IP67 | — | 2, 5 or 10 | PVC 3 x 0,12 | 37 | M/50/EAP/*V |
| | 10 ... 30 | 150 | PNP | -40 ... +80 | • | IP68 | — | 5 | PUR 3 x 0,14 | 37 | M/50/EAP/5U |
| | 10 ... 30 | 150 | PNP | -40 ... +80 | • | IP67 | Plug M8 x 1 | 0,3 | PVC 3 x 0,14 | 16 | M/50/EAP/CP *1) |
| | 10 ... 30 | 150 | PNP | -40 ... +80 | • | IP67 | Plug M12 x 1 | 0,3 | PVC 3 x 0,14 | 16 | M/50/EAP/CC *1) |
| | 10 ... 30 | 150 | NPN | -40 ... +80 | • | IP67 | — | 2, 5 or 10 | PVC 3 x 0,12 | 37 | M/50/EAN/*V |
| | 10 ... 30 | 150 | Closer | -40 ... +80 | • | IP67 | Plug M8 x 1 | 0,3 | PVC 3 x 0,14 | 16 | M/50/EAN/CP *1) |

* Insert cable length; *1) Plug-in connector below; Color code: BK = black, BN = brown, BU = blue

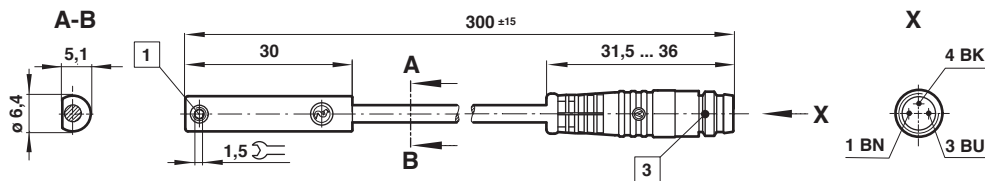
Dimensions

M/50/EAP/*V,
M/50/EAN/*V

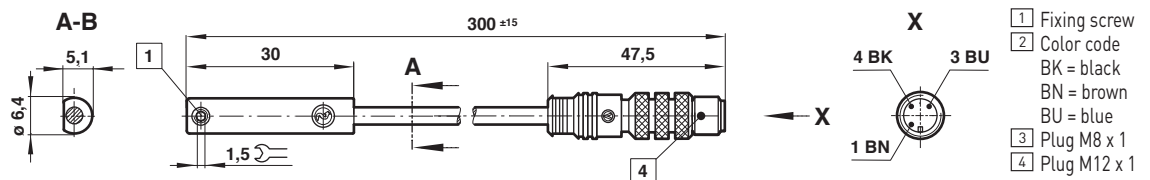
Cable length L =
2, 5 or 10 m



M/50/EAP/CP,
M/50/EAN/CP



M/50/EAP/CC



- 1 Fixing screw
- 2 Color code
BK = black
BN = brown
BU = blue
- 3 Plug M8 x 1
- 4 Plug M12 x 1

Accessories

Plug-in connector cable with nut



| Outer cover | Cable length | Weight (kg) | Connector | Model |
|--------------|--------------|-------------|-----------|------------|
| PVC 3 x 0,25 | 5 m | 0,18 | M8 x 1 | M/P73001/5 |
| PUR 3 x 0,25 | 5 m | 0,18 | M8 x 1 | M/P73002/5 |
| PUR 3 x 0,34 | 5 m | 0,21 | M12 x 1 | M/P34594/5 |

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where values 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.