

- > Ø 25 and 40 mm
- > Ideally suited for vacuum selected liquid transfer applications through the piston rod
- > Non-rotating and telescopic piston rod provides accurate, repeatable component orientation
- > Non-corrosive specification
- > Buffer cushioning
- > Direct attachment of vacuum pumps and suction cups



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Standard:

Ø 25: ISO 6432 (except piston rod)

Operation:

Double acting with buffer cushioning, magnetic piston

Operating pressure:

1 ... 10 bar (14 ... 145 psi)

Cylinder diameter:

25, 40 mm

Strokes:

500 mm max.

Operating temperature:

+80°C max (+176°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Materials:

Barrel:
Ø 25: stainless steel (austenitic)
Ø 40: anodised aluminium
End covers: anodised aluminium
Piston rod: stainless steel (austenitic)
Buffer and wiper: PUR
Piston seals:
Ø 25: NBR, Ø 40: PUR
'O'-rings: NBR

Technical data

| Cylinder Ø (mm) | 25 | 40 |
|--|---------|---------|
| Port size | G 1/8 | G 1/4 |
| Piston rod Ø (mm) | 12 | 16 |
| Piston rod thread | M22x1,5 | M38x1,5 |
| Theoretical thrusts at 6 bar outstroke (N) | 287 | 737 |
| Theoretical thrusts at 6 bar instroke (N) | 238 | 655 |
| Air consumption at 6 bar outstroke (l/cm) | 0,035 | 0,086 |
| Air consumption at 6 bar instroke (l/cm) | 0,028 | 0,077 |

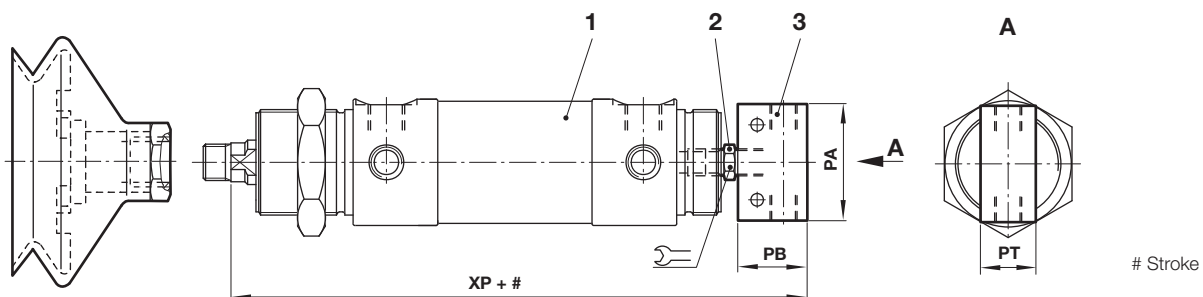
Option selector

VSM/556★★/N2/★★★

| Cylinder Ø | Substitute | Strokes (mm) |
|------------|------------|--------------|
| 25 | 25 | 500 max. |
| 40 | 40 | |

Example

Application with vacuum pumps and cups

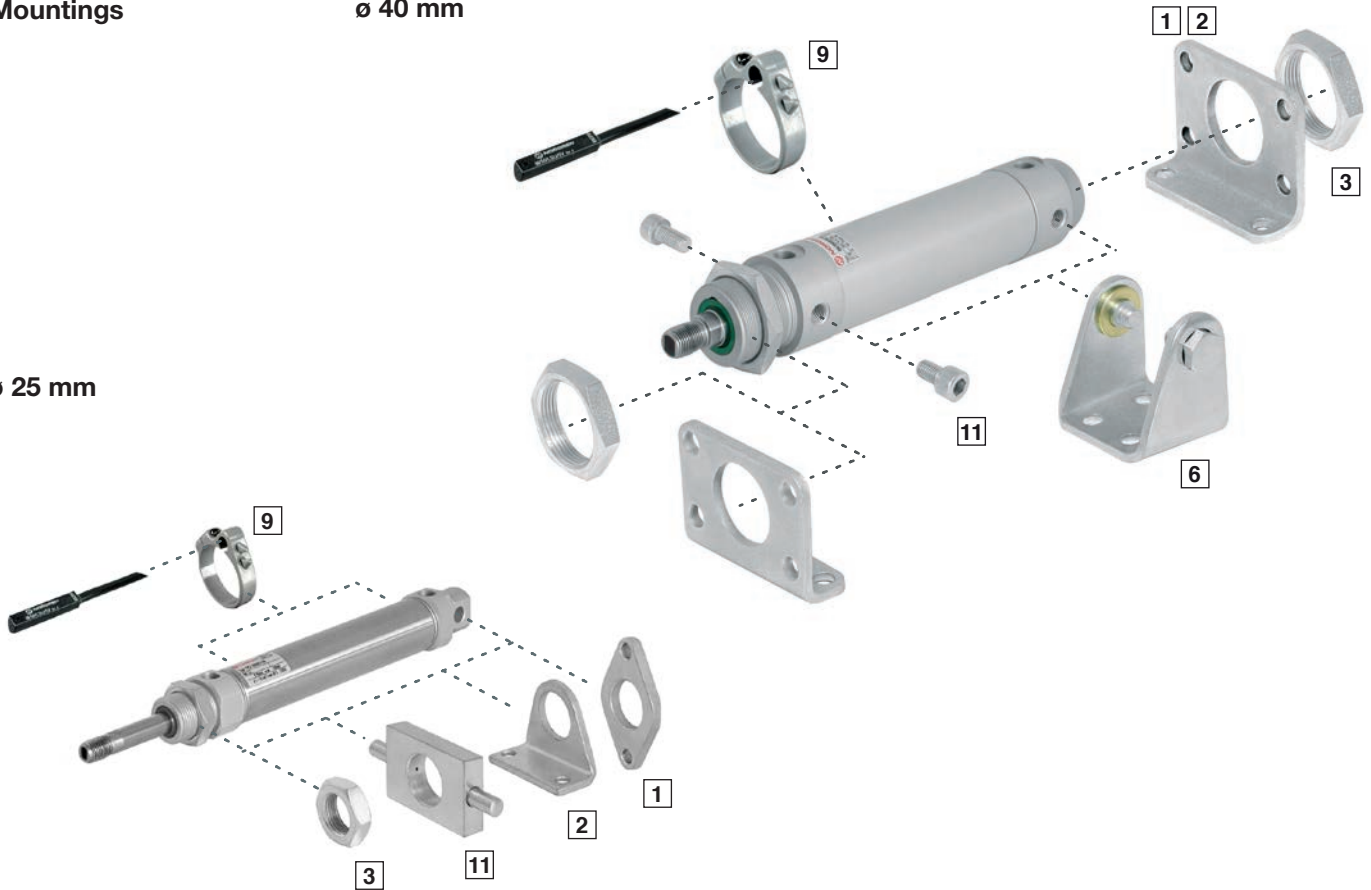


| Cylinder Ø | Pos. 1 Cylinder | Pos. 2 Fitting | Pos.3 Vacuum pump | PA | PB | PT | | XP |
|------------|-----------------|----------------|-------------------|----|----|----|----|-----|
| 25 | VSM/55625/N2 | 150201818 | M/58112/09 | 42 | 25 | 20 | 11 | 147 |
| 40 | VSM/55640/N2 | 150201818 | M/58112/09 | 42 | 25 | 20 | 11 | 200 |
| | | 150202818 | M/58112/11 | 62 | 30 | 30 | 14 | 207 |

Mountings

ø 40 mm

ø 25 mm



Mountings

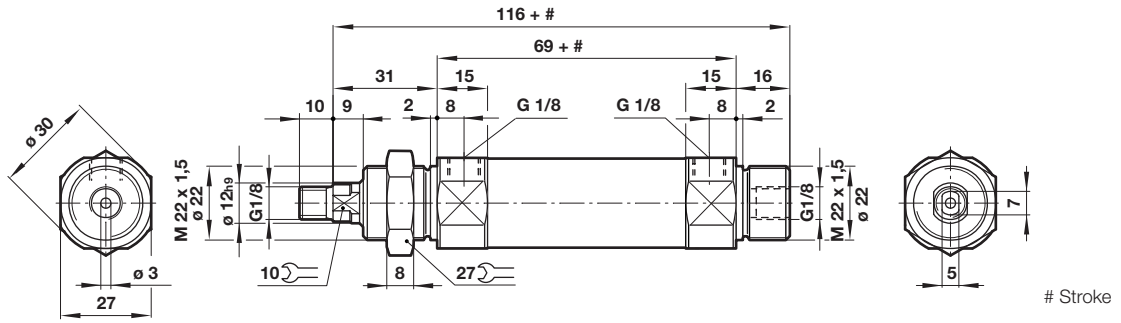
| Cylinder ø | Style B, G | Style C | Style FH | Style N | Bracket for switch *1) >15 mm stroke | Bracket for switch *1) <15 mm stroke | Bracket for switch *2) |
|------------|--|--|---|--|---|--|--|
| 40 |  1 Page 3 |  2 Page 3 |  11 Page 3 |  3 Page 3 |  9 Page 5 |  9 Page 5 |  9 Page 7 |
| 25 | M/P19409 | M/P19406 | QM/8020/34 | M/P13615 | QM/33/025/22 | QM/33/025/23 | QM/140/10/22 |
| Cylinder ø | Style B, G | Style C | Style H | Style L | Style N | Bracket for switch *1) | Bracket for switch *2) |
| 40 |  1 Page 4 |  2 Page 4 |  11 Page 4 |  6 Page 4 |  3 Page 4 |  9 Page 5 |  9 Page 7 |
| 40 | QM/55240/22 | QM/55240/21 | QM/55240/28 | QM/55240/24 | M/P29255 | QM/33/440/22 | QM/140/010/22 |

*1) Magnetically switch M/50

*2) Pneumatically operated switch QM/140

Dimensions

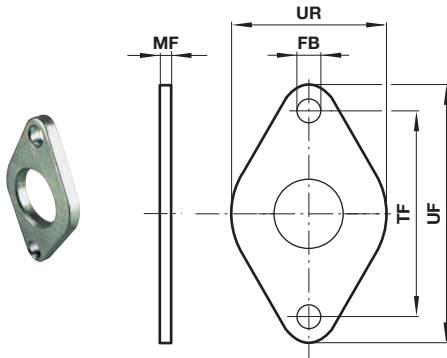
VSM/55625/N2
Ø 25 mm



| Cylinder Ø | Weight (kg) | |
|------------|-------------|-----------|
| | at 0 mm | per 25 mm |
| 25 | 0,19 | 0,028 |

Mountings

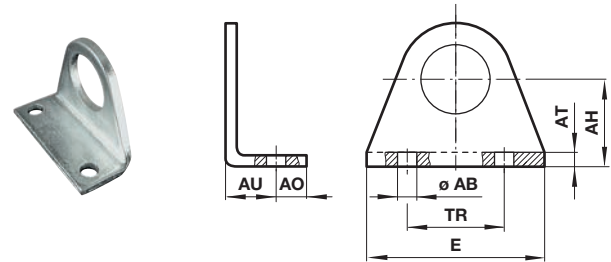
Front or rear flange G and B



| Ø | Ø FB | MF | TF | UF | UR | kg | Model (B, G) |
|----|------|----|----|----|----|------|--------------|
| 25 | 6,6 | 5 | 50 | 63 | 38 | 0,05 | M/P19409 |

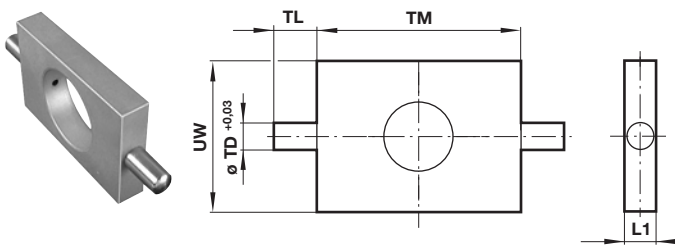
Foot C

Conforms to DIN ISO 6432



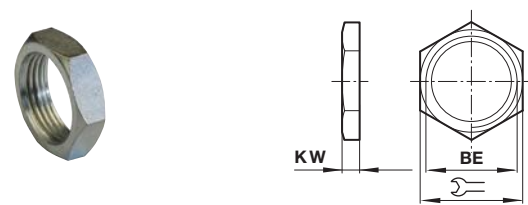
| Ø | Ø AB | AH | AO | AT | AU | E | TR | kg | Model (C) |
|----|------|----|-----|----|----|----|----|------|-----------|
| 25 | 6,6 | 25 | 7,5 | 4 | 16 | 53 | 40 | 0,06 | M/P19406 |

Front or rear detachable trunnion FH



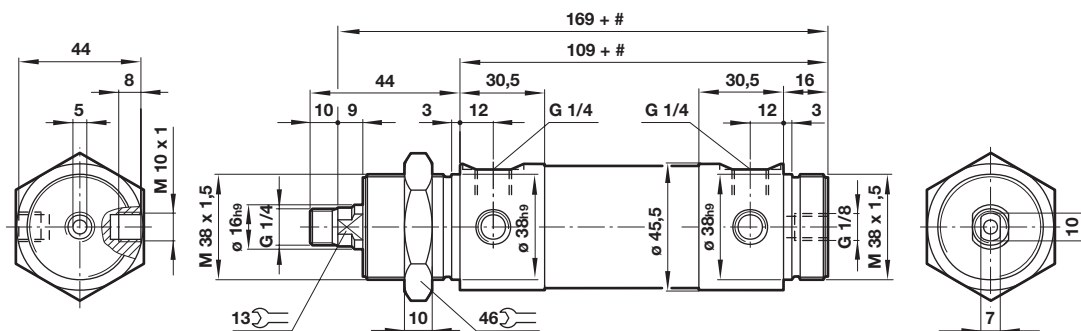
| Ø | L1 | Ø TD +0,03 | TL | TM | UW | kg | Model (FH) |
|----|----|------------|----|----|----|------|------------|
| 25 | 8 | 6 | 10 | 46 | 30 | 0,07 | QM/8020/34 |

Nose nut N



| Ø | BE | ⌀ | KW | kg | Model (N) |
|----|---------|----|----|------|-----------|
| 25 | M22x1,5 | 27 | 8 | 0,02 | M/P13615 |

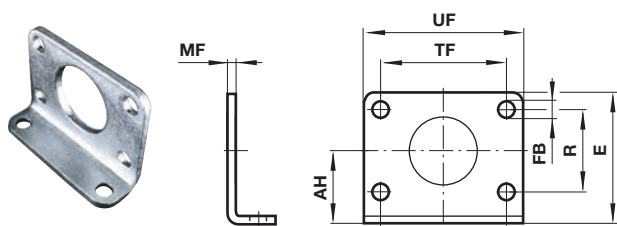
VSM/55640/N2
Ø 40 mm



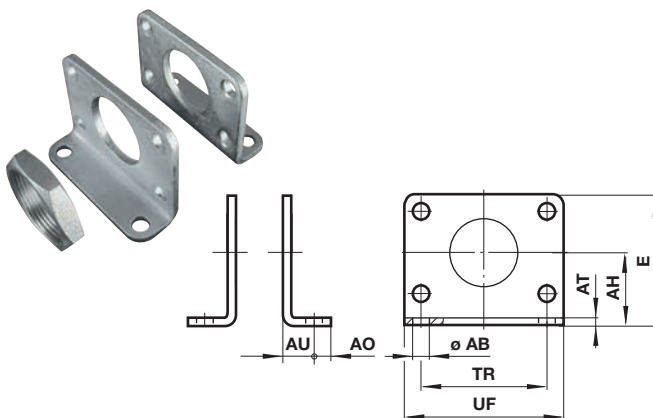
| Cylinder Ø | Weight (kg) at 0 mm | per 25 mm |
|------------|---------------------|-----------|
| 40 | 0,66 | 0,043 |

Mountings

Rear flange B, front flange G



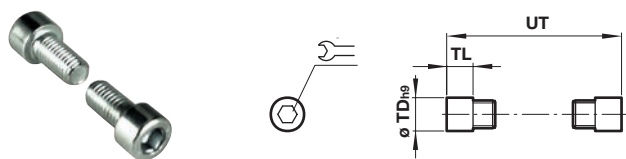
Foot C



| Ø | AH | E1 | Ø FB | MF | R | TF | UF | kg | Model (B, G) |
|----|----|----|------|----|----|----|----|------|--------------|
| 40 | 33 | 58 | 9 | 5 | 30 | 60 | 80 | 0,19 | QM/55240/22 |

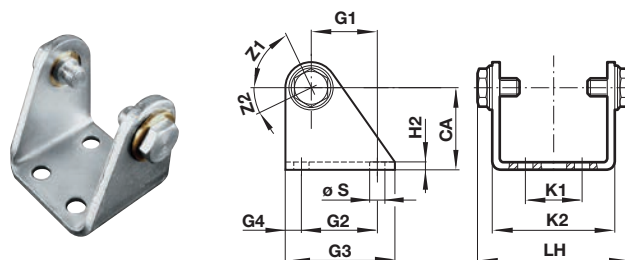
| Ø | Ø AB | AH | AO | AT | AU | E | TR | kg | Model (C) |
|----|------|----|----|----|----|----|----|------|-------------|
| 40 | 9 | 33 | 10 | 5 | 20 | 80 | 60 | 0,44 | QM/55240/21 |

End cover trunnion H



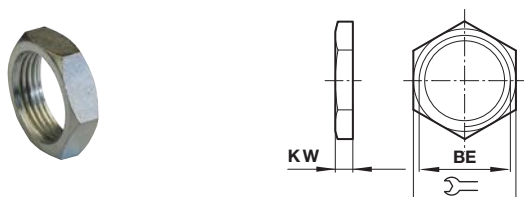
| Ø | Ø TD h9 | TL | UT | kg | Model (H) |
|----|---------|-----|----|------|-------------|
| 40 | 12 | 9,5 | 63 | 0,03 | QM/55240/28 |

Rear hinge L



| Ø | CA | G1 | G2 | G3 | G4 | Ø | H2 | K1 | K2 | LH | Z1 | Z2 | Model (L) |
|----|----|----|----|----|----|---|----|----|------|----|-----|-----|-------------|
| 40 | 40 | 27 | 30 | 50 | 10 | 9 | 5 | 28 | 56,5 | 71 | 55° | 32° | QM/55240/24 |

Nose nut N



| Ø | BE | KW | kg | Model (N) |
|----|-----------|----|----|-----------|
| 40 | M38 x 1,5 | 46 | 10 | M/P29255 |

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

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

Drawings

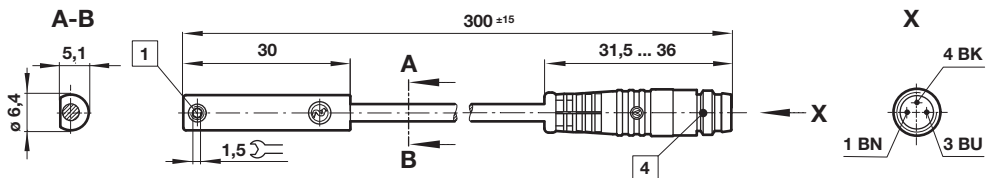
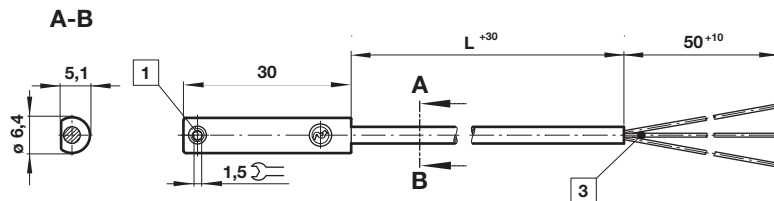
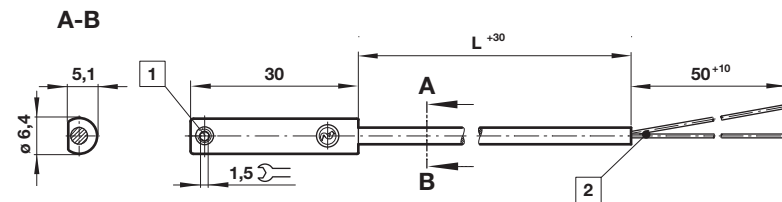
M/50/LSU/*V, M/50/LSU/5U,
TM/50/RAU/2S
Cable length L = 2, 5 or 10 m



M/50/RAC/5V
Cable length L = 5 m



M/50/LSU/CP



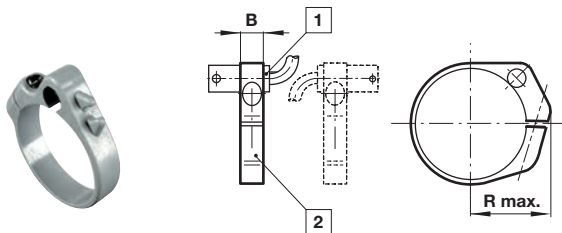
- 1 Fixing screw
- 2 + BN = brown; - BU = blue (output)
- 3 - BK = black; + BN = brown; - BU = blue
- 4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Dimensions in mm
Projection/First angle



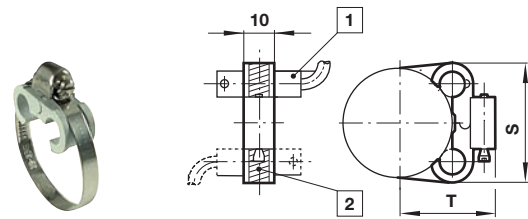
Switch mounting brackets

Brackets > 15 mm stroke



- 1 Magnetically operated switch
- 2 Switch mounting bracket

Brackets < 15 mm stroke

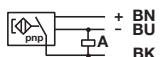
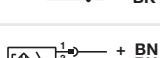
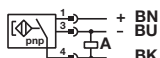

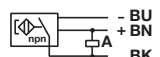
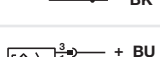


- 1 Magnetically operated switch
- 2 Switch mounting bracket

| Ø | B | R max. | kg | Model |
|----|----|--------|------|--------------|
| 25 | 10 | 24 | 0,01 | QM/33/025/22 |
| 40 | 10 | 32 | 0,01 | QM/33/440/22 |

| Ø | S | T | kg | Model |
|----|------|------|------|--------------|
| 25 | 31,5 | 28,5 | 0,01 | QM/33/025/23 |

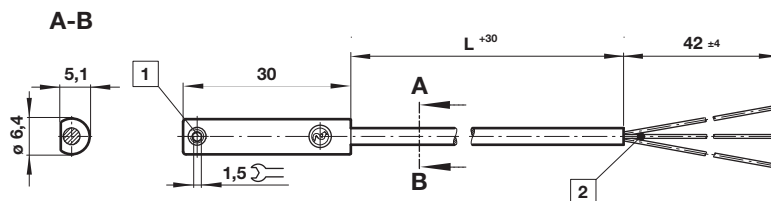
Technical data - Solid state - additional informations see data sheet N/en 4.3.007

| Symbol | Voltage (V d.c.) | Current maximum (mA) | Function | Temperature (°C) | LED | Protection class | Plug | 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 | M8 x 1 | 0,3 | PVC 3 x 0,14 | 16 | M/50/EAP/CP *1) |
|  | 10 ... 30 | 150 | PNP | -40 ... +80 | • | IP67 | 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 | 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

Drawings

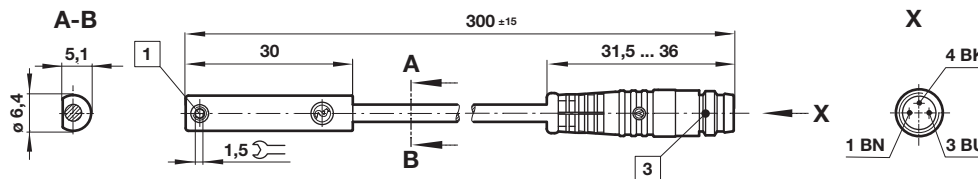
M/50/EAP/*V,
M/50/EAN/*V
Cable length L = 2, 5 or 10 m



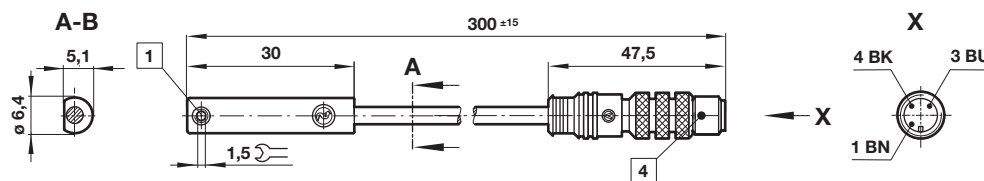
Dimensions in mm
Projection/First angle



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

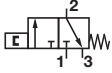
Accessories

Plug-in connector cable with nut



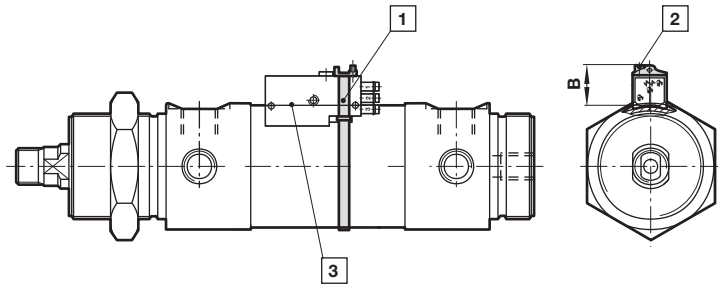
| Outer cover | Cable length (m) | Weight (kg) | Connector | Connector |
|--------------|------------------|-------------|-----------|------------|
| PVC 3 x 0,25 | 5 m | 0,18 | M8 x 1 | M/P73001/5 |
| PUR 3 x 0,25 | 5 m | 0,18 | M8 x 1 | M/P73002/5 |
| PUR 3 x 0,34 | 5 m | 0,21 | M12 x 1 | M/P34594/5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

Pneumatic proximity sensor - additional informations see data sheet N/en 4.3.061

| Symbol | Operating pressure | Flow rate | Orifice size | Temperature | Optical indicator | Connections | Model |
|---|--------------------|-----------|--------------|---------------|-------------------|---------------------------|--------|
|  | 2 ... 6 bar | 40 l/min | 2 mm | -15 ... +60°C | • | Pipes for 3 mm I/D tubing | QM/140 |

**QM/140/010/22 – Bracket with holding strap
Pneumatic switch: QM/140**

| Cylinder Ø | B | Weight |
|------------|------|----------|
| 40 | 18,5 | 0,020 kg |



- 1** Holding strap
- 2** Optical indicator
- 3** Pneumatic switch

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 IMI NORGRN.

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.