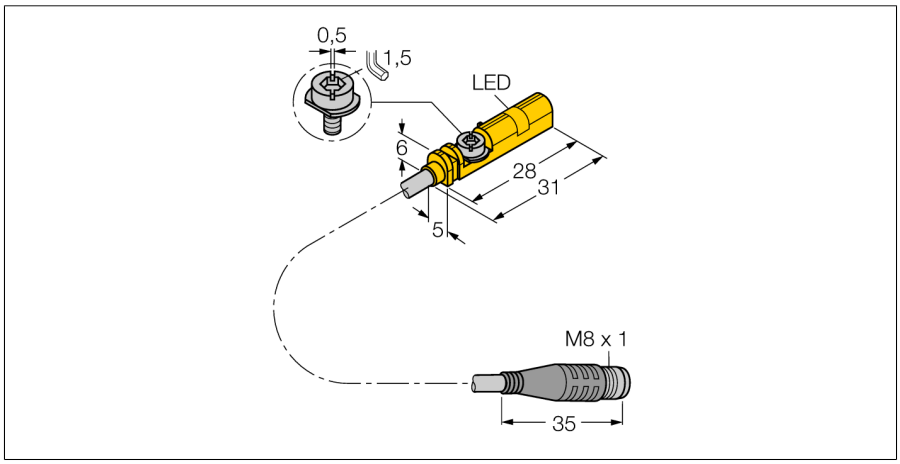
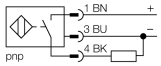
# Magnetic field sensor for pneumatic cylinders BIM-UNT-AP7X-0,3-PSG3S

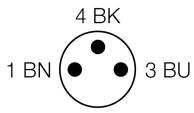



- **For T-groove cylinders without mounting accessories**
- **Optional accessories for mounting on other cylindrical housings.**
- **One-hand mounting possible**
- **Fine adjustment tool and stopper directly mountable on the sensor**
- **Stable mounting**
- **Magneto-resistive sensor**
- **DC 3-wire, 10…30 VDC**
- **NO contact, PNP output**
- **Pigtail with male end, Ø 8 mm**

| | |
|---|---|
| **Type code** | BIM-UNT-AP7X-0,3-PSG3S |
| Ident no. | 4685742 |
| **Pass speed** | ≤ 10 m/s |
| Repeatability | ≥ ± 0.1 mm |
| Temperature drift | ≤ 0.1 mm |
| Hysteresis | ≤ 1 mm |
| Ambient temperature | -25…+70 °C |
| **Operating voltage** | 10…30VDC |
| Residual ripple | ≤ 10 % $U_{ss}$ |
| DC rated operational current | ≤ 100 mA |
| No-load current $I_0$ | ≤ 10 mA |
| Residual current | ≤ 0.1 mA |
| Rated insulation voltage | ≤ 0.5 kV |
| Short-circuit protection | no |
| Voltage drop at $I_e$ | ≤ 1.4 V |
| Wire breakage / Reverse polarity protection | yes/ yes (voltage supply) |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 1 kHz |
| **Construction** | rectangular, UNT |
| Dimensions | 28 x 5 x 6 mm |
| Housing material | plastic, PP |
| Material active area | plastic, PP |
| Tightening torque fixing screw | 0.4 Nm |
| Connection | Cable with male end, Ø 8 mm |
| Cable quality | 3 mm, grey, Lif9Y-11Y, PUR, 0.3m<br>Suited for E-ChainSystems® acc. to manufacturers declaration H1063M |
| Cable cross section | 3 x 0.14 mm² |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| IP Rating | IP67 |
| MTTF | 2283 years acc. to SN 29500 (Ed. 99) 40 °C |
| Mounting on the following profiles | . |
| Cylindrical design | ○ ▭ ▭ ○ |
| **Switching state** | LED yellow |
| Included in scope of supply | cable clip |

## Wiring diagram



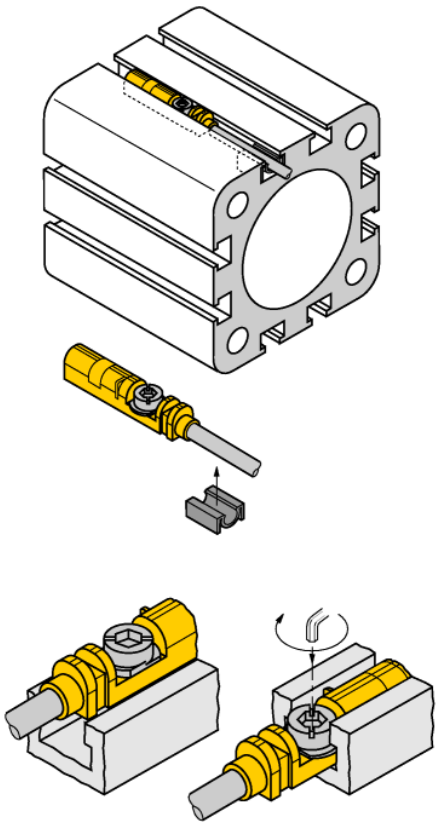

## Functional principle

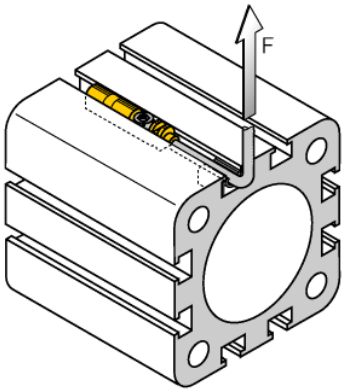
Magnetic field sensors are activated by magnetic fields. They are applied to detect the position of pneumatic cylinders. Magnetic fields can permeate non-magnetizable metals. A permanent magnet attached to the piston is thus detected through the aluminium wall of the cylinder.

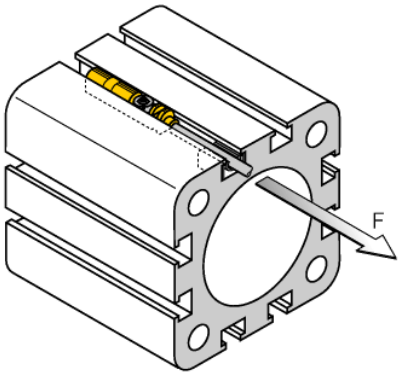
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# Magnetic field sensor
# for pneumatic cylinders
# BIM-UNT-AP7X-0,3-PSG3S

**Mounting instructions / Description** mounting instructions





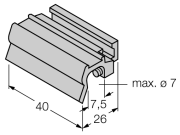
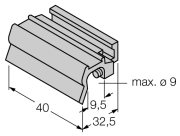
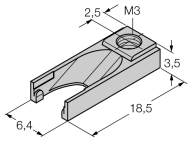
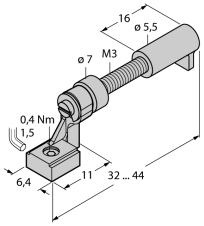
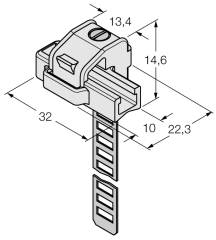




Insert the sensor in the groove from above. Mount the sensors as follows using the patented wing screw: The wing screw features a left-hand female thread. Two small plastic lips keep the screw in position, ready-to-install. Turn the screw clockwise. The screw moves out of the thread and hits the upper grooves with the wings. The sensor is thus pressed down and locked. Use a standard screw driver or a 2.5 mm Allen key to fasten the screw with a quarter turn. A fixing torque of 0.4 Nm is sufficient for safe mounting without damaging the cylinder. The sensor now withstands axial and radial tensile load of F=100N applied on the cable. Cable clips are included in the scope of delivery. They enable smooth cable routing in the groove. Mounting accessories for other cylinder sizes have to be ordered separately.

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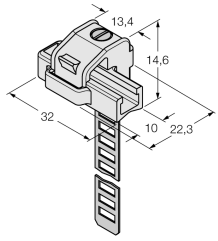
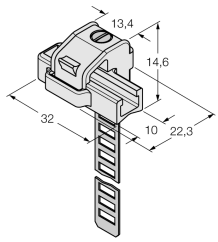
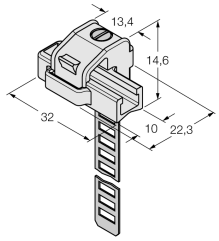
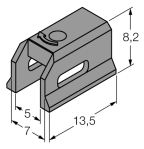
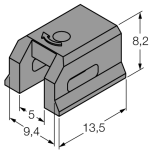
 Hans Turck GmbH & Co.KG ● D-45472 Mülheim an der Ruhr ● Witzlebenstraße 7 ● Tel. 0208 4952-0 ● Fax 0208 4952-264 ● more@turck.com ● www.turck.com

## Accessories

| Type code | Ident no. | Description | Design |
|---|---|---|---|
| KLZ1-INT | 6970410 | Accessories for mounting the BIM-UNT sensor on round cylinders; diameter: 32…40 mm; material: Aluminium; further mounting accessories for other cylinder diameters on request |  |
| KLZ2-INT | 6970411 | Accessories for mounting the BIM-UNT sensor on ◯ tie-rod cylinders; diameter: 50…63 mm; material: Aluminium; further mounting accessories for other cylinder diameters on request |  |
| UNT-Stopper | 4685751 | Accessories for finetuning the switchpoint on ⋮⋮ T-groove cylinders; snap-locked in the BIM-UNT fixture; suited for multiple use; material: plastic |  |
| UNT-Justage | 4685750 | Accessories for finetuning the switchpoint on ⋮⋮ T-groove cylinders; snap-locked in the BIM-UNT fixture; suited for multiple use; material: metal/plastic |  |
| KLRC-UNT1 | 6970626 | Accessories for mounting on ◯ cylinders; diameter: 8…25 mm; material: PA 6I/6T / nickel silver; Fire-hazard classification acc. to UL94 - V2 |  |

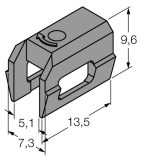
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## Accessories

| Type code | Ident no. | Description | Design |
|---|---|---|---|
| KLRC-UNT2 | 6970627 | Accessories for mounting on ◯ cylinders; diameter: 25…63 mm; material: PA 6I/6T / nickel silver; Fire-hazard classification acc. to UL94 - V2 |  |
| KLRC-UNT3 | 6970628 | Accessories for mounting the BIM-UNT sensor on ◯ round cylinders; diameter: 63…130 mm; material: PA 6I/6T / nickel silver; Fire-hazard classification acc. to UL94 - V2 |  |
| KLRC-UNT4 | 6970629 | Accessories for mounting the BIM-UNT sensor on ◯ round cylinders; diameter: 130…250 mm; material: PA 6I/6T / nickel silver; Fire-hazard classification acc. to UL94 - V2 |  |
| KLDT-UNT2 | 6913351 | Accessories for mounting the BIM-UNT sensor on dovetail cylinders; groove width: 7 mm; material: PPS |  |
| KLDT-UNT3 | 6913352 | Accessories for mounting the BIM-UNT sensor on ⬚ dovetail groove cylinders; groove width: 9.4 mm; material: PPS |  |

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## Accessories

| Type code | Ident no. | Description | Design |
|---|---|---|---|
| KLDT-UNT6 | 6913355 | Accessories for mounting on ⊏⊐ dovetail groove cylinders; groove width: 7.35 mm; material: PPS |   |

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