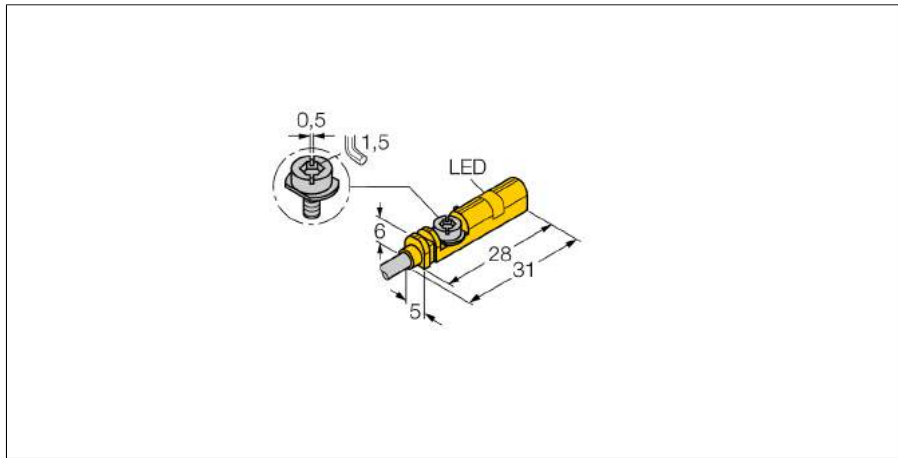


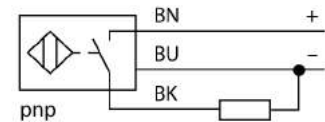
**Magnetic field sensor
for pneumatic cylinders
BIM-UNT-AP6X**



- 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
- Cable connection

Type code	BIM-UNT-AP6X
Ident no.	4685720
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 _s
DC rated operational current	≤ 150 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
Design	rectangular, UNT
Dimensions	28x 5x 6 mm
Housing material	plastic, PP
Material active face	Plastic, PP
Tightening torque fixing screw	0.4 Nm
Connection	cable
Cable quality	3 mm, grey, Lif9Y-11Y, PUR, 2 m Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Cable cross section	3 x 0.14 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Mounting on the following profiles	
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.

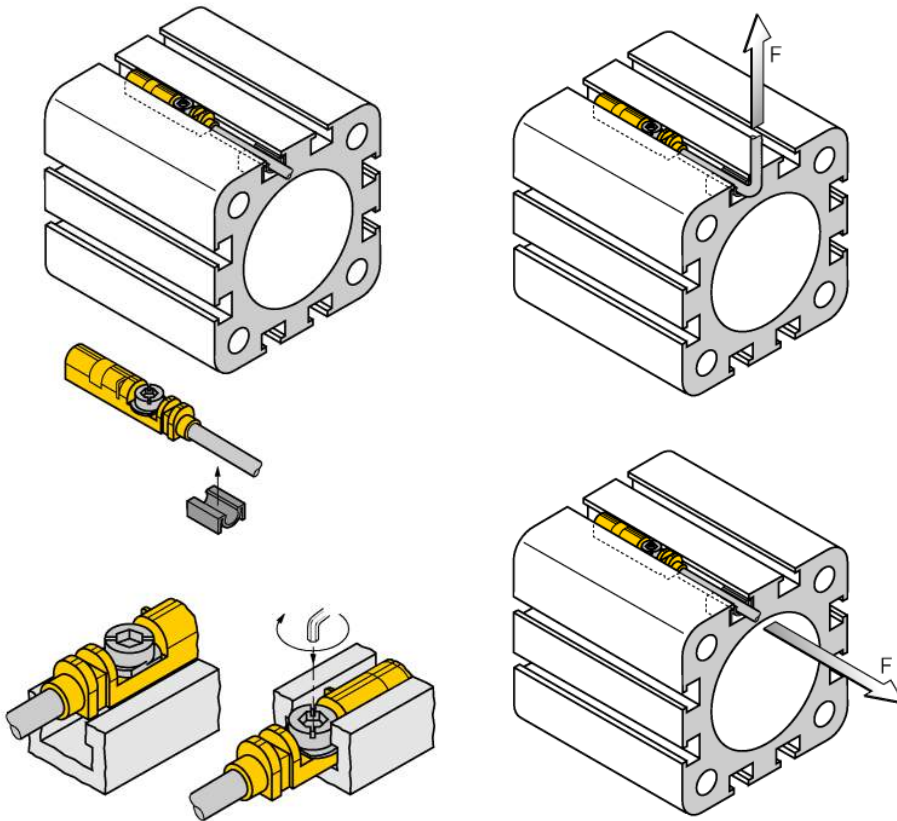
Magnetic field sensor for pneumatic cylinders BIM-UNT-AP6X

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Mounting instructions / Description

mounting instructions



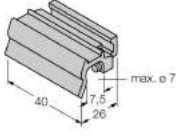

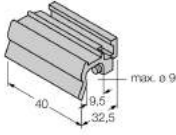

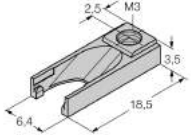

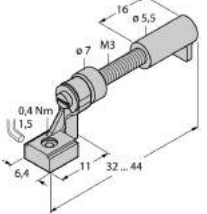

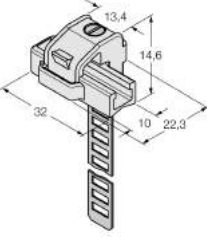
Insert the sensor in the groove from above. Mount the sensors as follows using the patented wing screw: The wing screw features a left-hand female thread. Two small plastic lips keep the screw in position, ready-to-install. Turn the screw clockwise. The screw moves out of the thread and hits the upper 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 $F=100\text{N}$ 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.

**Magnetic field sensor
for pneumatic cylinders
BIM-UNT-AP6X**

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Accessories

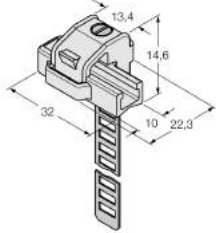
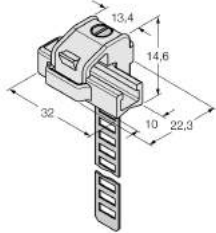
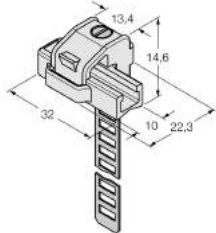
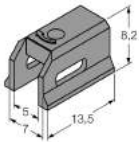

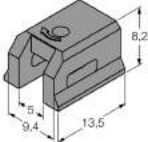
Type code	Ident no.	Description	Dimension drawing
KLZ1-INT	6970410	Accessories for mounting the BIM-UNT sensor on round cylinders; diameter: 32...40 mm; material: Aluminium; further mounting accessories for other cylinder diameters on request	 <p>Technical drawing of the KLZ1-INT mounting accessory. It shows a cross-section of a U-shaped aluminum bracket with a width of 40 mm and a height of 26 mm. The inner radius is 7.5 mm. A dimension 'max. ø 7' indicates the maximum diameter of the cylinder it fits.</p>
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	 <p>Technical drawing of the KLZ2-INT mounting accessory. It shows a cross-section of a U-shaped aluminum bracket with a width of 40 mm and a height of 32.5 mm. The inner radius is 9.5 mm. A dimension 'max. ø 9' indicates the maximum diameter of the tie-rod it fits.</p>
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	 <p>Technical drawing of the UNT-Stopper. It is a plastic component with a length of 18.5 mm and a width of 6.4 mm. It has a central hole with a diameter of 2.5 mm and an M3 thread. The height of the stopper is 3.5 mm.</p>
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	 <p>Technical drawing of the UNT-Justage. It is a metal/plastic component with a length of 32...44 mm and a width of 6.4 mm. It has a central hole with a diameter of 7 mm and an M3 thread. The height of the component is 1.5 mm. A torque specification of 0.4 Nm is indicated.</p>
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	 <p>Technical drawing of the KLRC-UNT1. It is a long, thin component with a length of 32 mm and a width of 10 mm. It has a diameter of 13.4 mm at the top and 14.6 mm at the bottom. The height of the top part is 22.3 mm.</p>

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Accessories


Type code	Ident no.	Description	Dimension drawing
KLRC-UNT2	6970627	Accessories for mounting on \bigcirc 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 \bigcirc 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 \bigcirc 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	Dimension drawing
KLDT-UNT6	6913355	Accessories for mounting on  dovetail groove cylinders; groove width: 7.35 mm; material: PPS	