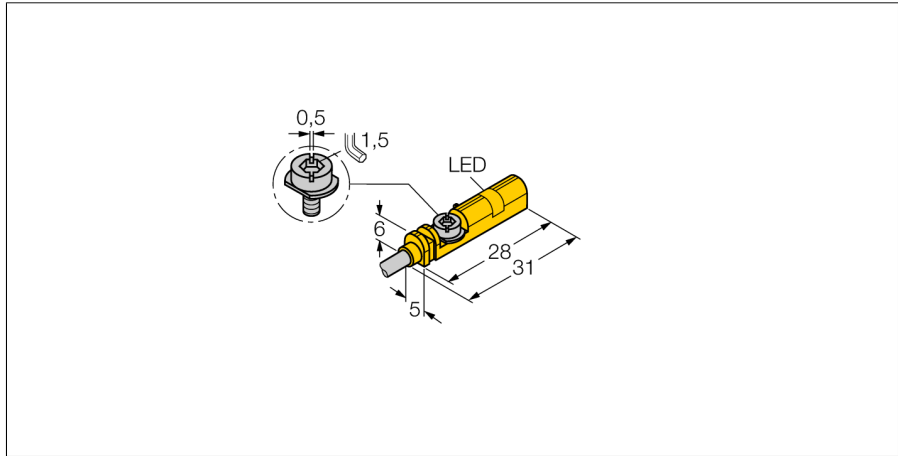


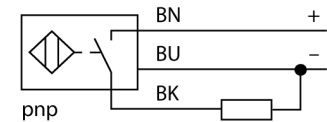
**Magnetic field sensor  
for pneumatic cylinders  
BIM-UNT-AP6X 7M**



- 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

<b>Type code</b>	BIM-UNT-AP6X 7M
Ident no.	4685721
<b>Pass speed</b>	≤ 10 m/s
Repeatability	≥ ± 0.1 mm
Temperature drift	≤ 0.1 mm
Hysteresis	≤ 1 mm
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	≤ 10 % U <sub>s</sub>
DC rated operational current	≤ 150 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
<b>Design</b>	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
Cable quality	3 mm, grey, Lif9Y-11Y, PUR, 7 m Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Cable cross section	3 x 0.14 mm <sup>2</sup>
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	
Cylindrical design	
<b>Switching state</b>	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 7M

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Mounting instructions / Description

mounting instructions



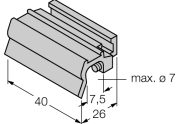

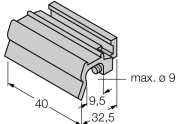

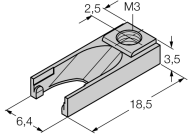

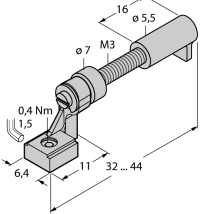

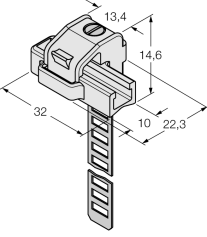
Insert the sensor in the groove from above. Mount the sensors as follows using the patented wing screw: The wing screw features a left-hand female thread. Two small plastic lips keep the screw in position, ready-to-install. Turn the screw clockwise. The screw moves out of the thread and hits the upper 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  
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**Accessories**

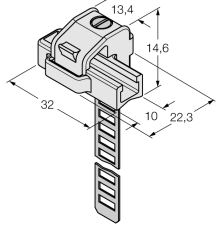
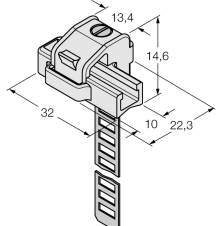
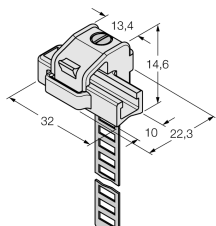
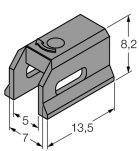

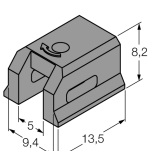
Type code	Ident no.	Description	Dimension drawing
KLZ1-INT	6970410	Accessories for mounting the BIM-UNT sensor on round cylinders; diameter: 32...40 mm; material: Aluminium; further mounting accessories for other cylinder diameters on request	 <p>Technical drawing of a mounting bracket for round cylinders. Dimensions: 40 mm length, 7.5 mm height, 26 mm width at the base, and a maximum diameter of 7 mm for the mounting hole.</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 a mounting bracket for tie-rod cylinders. Dimensions: 40 mm length, 9.5 mm height, 32.5 mm width at the base, and a maximum diameter of 9 mm for the mounting hole.</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 a plastic stopper for T-groove cylinders. Dimensions: 18.5 mm length, 6.4 mm width, 3.5 mm height, and a 2.5 mm wide M3 hole.</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 a metal/plastic adjustment screw for T-groove cylinders. Dimensions: 16 mm length, 6.4 mm width, 11 mm height, and a 6.4 mm wide base. The screw has an M3 thread and a diameter of 7 mm. Torque specification: 0.4 Nm.</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 a mounting bracket for small diameter cylinders. Dimensions: 32 mm length, 13.4 mm width, 14.6 mm height, 10 mm base width, and 22.3 mm distance from the base to the mounting hole.</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	

**Magnetic field sensor  
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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	