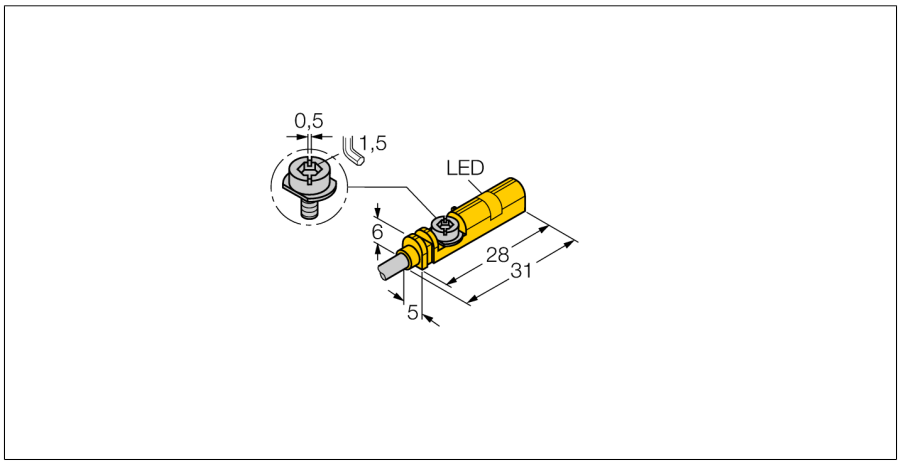
Magnetic Field Sensor
for pneumatic cylinders
BIM-UNT-AP7X

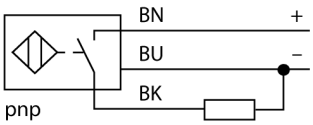
Industrial Automation



- **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 designation	BIM-UNT-AP7X
Ident-No.	4685740
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…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 100 mA
No-load current I_0	≤ 10 mA
Residual current	≤ 0.1 mA
Isolation test 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
Design	Rectangular,UNT
Dimensions	28 x 5 x 6 mm
Housing material	Plastic, PP
Active area material	Plastic, PP
Tightening torque fixing screw	0.4 Nm
Electrical connection	Cable
Cable quality	3mm, Gray, Lif9Y-11Y, PUR, 2 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)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Packaging unit	1
Mounting on the following profiles	.
Cylindrical design	◯ ▭ ▭ ◯
Switching state	LED,Yellow
Included in delivery	cable clip

Wiring Diagram

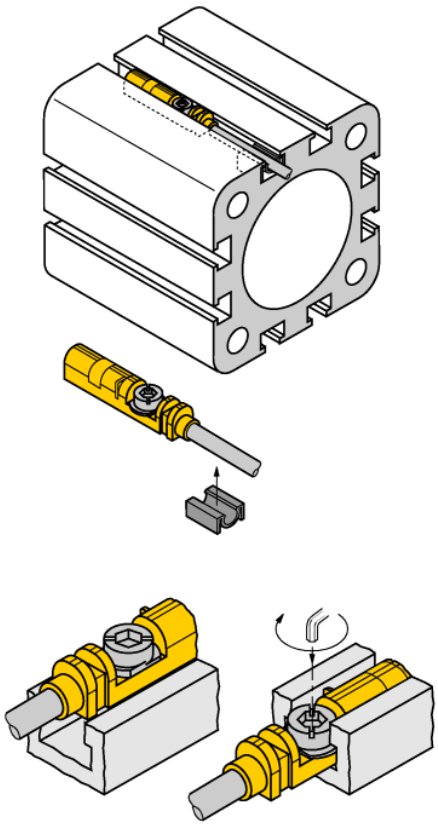


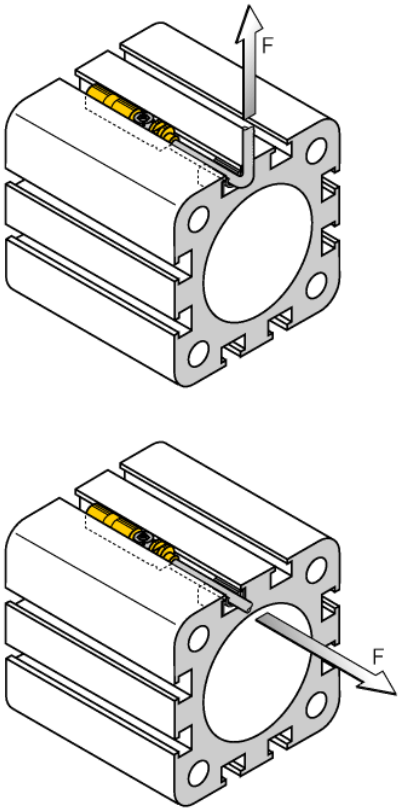
Functional principle

Magnetic field sensors are activated by magnetic fields and are used, in particular, for the detection of the piston position in pneumatic cylinders. As magnetic fields can permeate non-magnetizable metals, they detect a permanent magnet attached to the piston through the aluminium cylinder wall.

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Mounting instructions/Description Mounting instructions

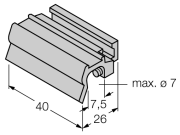
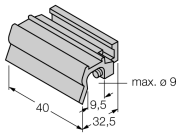
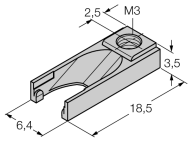
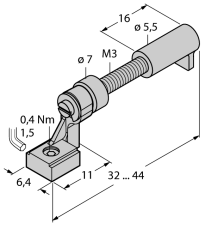
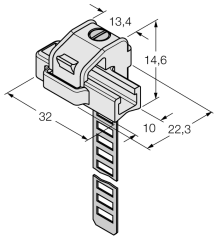




Thanks to the mounting lip, the sensor can be inserted into the groove from above with one hand. Mount the sensors as follows using the patented wing screw: The wing screw and the female thread feature a left-hand thread. Two small plastic lips keep the screw in position, ready-to-install. Turn the screw clockwise. The screw moves out of the thread and hits the upper grooves with the wings. The sensor is thus pressed down and locked in position. A few degrees up to approximately 1.5 turns of the screw with a slotted screwdriver (blade width 0.5 mm) or a 1.5 mm Allen key are sufficient to ensure vibration-proof fastening, depending on the shape of the slot. A tightening torque of 0.4 Nm is sufficient for safe mounting without damaging the cylinder. The sensor can now withstand an axial and radial tensile load of F=100N applied on the cable. A cable clip is included in the scope of delivery. It enables smooth cable routing in the groove and ensures that the cable is fastened as securely as possible. The corresponding accessories for mounting on other cylindrical housings must be ordered separately.

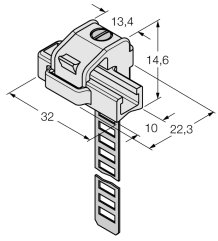
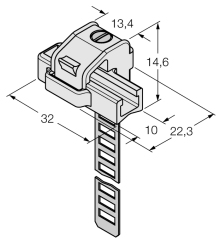
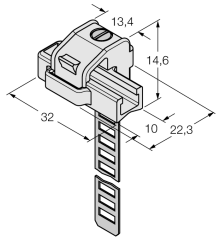
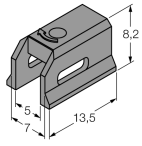
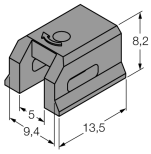
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Accessories

Type code	Ident-No.	Description	
KLZ1-INT CLAMP	6970410	Accessories for mounting the sensors BIM-INT and BIM-UNT on tie-rod cylinders; Cylinder diameter: 32…40 mm; material: Aluminium; Further mounting accessories for other cylinder diameters on request	
KLZ2-INT CLAMP	6970411	Accessories for mounting the sensors BIM-INT and BIM-UNT on tie-rod cylinders; Cylinder 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-ADJUSTING BRACKET	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	

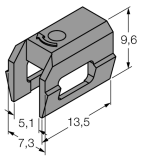
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Accessories

Type code	Ident-No.	Description	
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	
KLDT-UNT6	6913355	Accessories for mounting on dovetail groove cylinders; groove width: 7.35 mm; material: PPS	

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