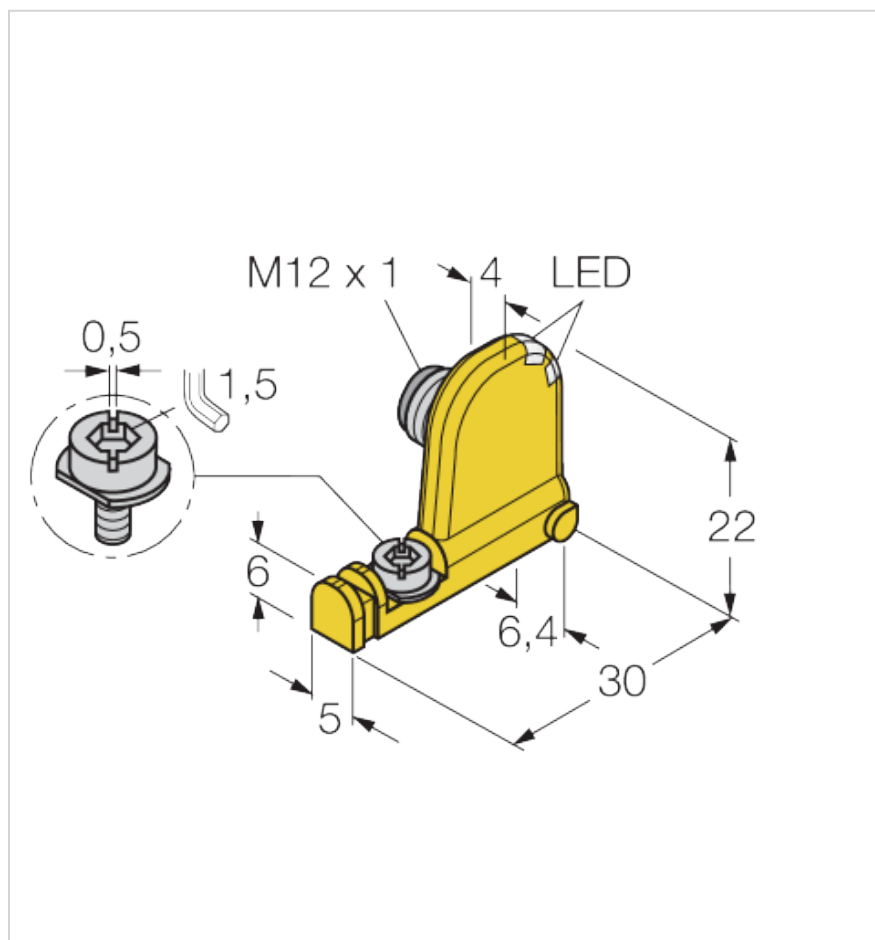


BIM-UNT-AP6X2-H1141

Magnetic Field Sensor For Pneumatic Cylinders



Typ	BIM-UNT-AP6X2-H1141
Ident-No.	4685726

Technical data

General data	
Pass speed	≤ 10 m/s
Sensor shape fitting to cylindrical housing	profile cylinder (T-groove [e.g. Festo]), round cylinder
Power supply	
Operating voltage U_B	10...30 VDC
Voltage drop at I_e	≤ 1,8 V
Electrical data	

Features

- For T-groove cylinders without mounting accessories
- Optionally available accessories for mounting on other cylinder types
- One-hand mounting possible
- Stable mounting
- Magneto-resistive sensor
- DC 3-wire, 10...30 VDC
- NO, PNP output
- Connector, M12 × 1

Technical data

No-load current	15 mA
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes/Complete
DC rated operational current	≤ 150 mA
Isolation test voltage	$\leq 0,5$ kV
Residual current	$\leq 0,1$ mA
Residual ripple	$\leq 10\%$ U_{SS}
Switching frequency	1 kHz

Accuracy/deviation

Hysteresis	≤ 1 mm
Repeatability	$\leq \pm 0,1$ mm
Temperature drift	$\leq 0,1$ mm

Mechanical data

Design	Rectangular, UNT
Construction type designation	UNT
Dimensions	30 mm x 5 mm x 22 mm
Housing material	Plastic, PP
Active area material	Plastic, PP
Electrical connection	Connector, M12 x 1
Mounting on the following profiles	
Number of pins	4
Tightening torque fixing screw	0,4 Nm

Ambient conditions

Ambient temperature	-25...+70 °C
Pollution degree	3
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP68

Tests/approvals

MTTF	2283 Years acc. to SN 29500 (Ed. 99) 40 °C
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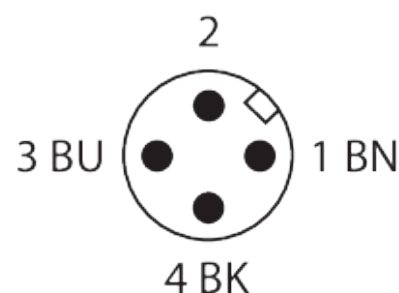
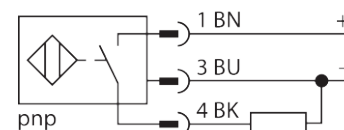
Displays/controls

Power-on indication	LED, Green
Switching state	LED, Yellow

Other properties

RoHs compatibility	yes
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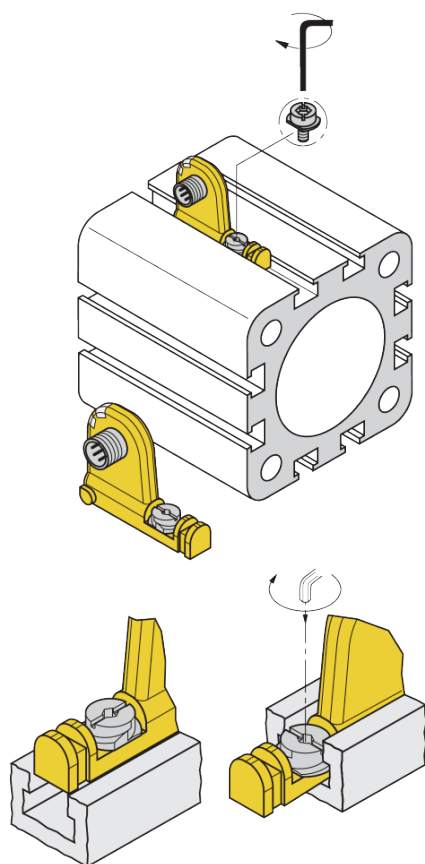
Wiring Diagram



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, the sensors can detect a permanent magnet attached to the piston through the aluminum cylinder wall.

Assembly instructions



Installation information:

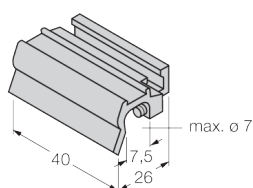
Insert the sensor laterally in the groove with the tip first. Once the correct position is attained click the sensor in the groove. Finally, screw the sensor tight. Mount the sensors as follows using the patented wing screw: The wing screw features a left-hand female thread. Two small plastic lips keep 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 1.5 mm Allen key to fasten the screw with a quarter turn. The permissible tightening torque of 0.4 Nm is sufficient for safe mounting without damaging the cylinder. The correspondent accessories for mounting on other cylindrical housings has to be ordered separately.

Mounting accessories

KLZ1-INT

6970410

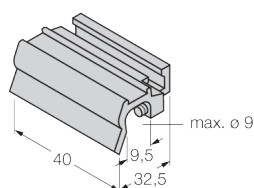
Accessories for mounting BIM-INT and BIM-UNT sensors on □ tie-rod cylinders; cylinder diameter: 32...40 mm; material: Aluminum; further mounting accessories for other cylinder diameters on request



KLZ2-INT

6970411

Accessories for mounting BIM-INT and BIM-UNT sensors on □ tie-rod cylinders; cylinder diameter: 50...63 mm; material: Aluminum; further mounting accessories for other cylinder diameters on request

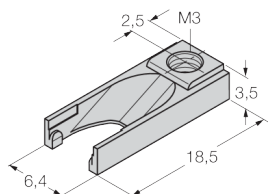


Mounting accessories

UNT-STOPPER

4685751

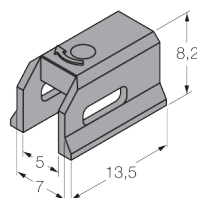
Accessories to secure the switching point on □ T-groove cylinders; snap-lock mounting in the BIM-UNT sensor fixture; material: Plastic



KLDT-UNT2

6913351

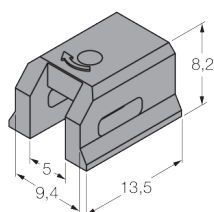
Mounting bracket for mounting magnetic field sensors on □ dovetail groove cylinders; groove width: 7 mm; material: PPS



KLDT-UNT3

6913352

Mounting bracket for mounting magnetic field sensors on □ dovetail groove cylinders; groove width: 9.4 mm; material: PPS



KLDT-UNT6

6913355

Mounting bracket for mounting magnetic field sensors on □ dovetail groove cylinders; groove width: 7.35 mm; material: PPS

