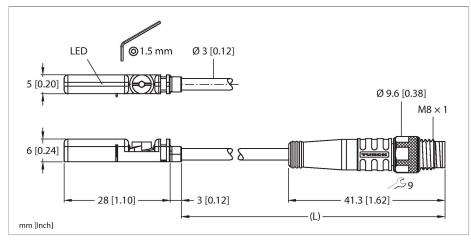


BIM-UNT-AP6X-0.3-PSG3M Magnetic Field Sensor – For Pneumatic Cylinders



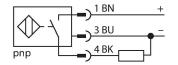
Technical data

ID 4685723 General data Pass speed ≤ 10 m/s Repeatability ≤ ± 0.1 mm Temperature drift ≤ 0.1 mm Hysteresis ≤ 1 mm Electrical data Operating voltage U _B 1030 VDC Ripple U _{SC} ≤ 10 % U _{Brouse} DC rated operating current I _C ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I _C ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Design Rectangular, UNT Dimensions 28 x 5 x 6 mm Housing material Plastic, PP Tightening torque fixing screw 0.4 Nm Electrical connection Cable with connector, M8 × 1 Cable quality Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m	Туре	BIM-UNT-AP6X-0.3-PSG3M
Pass speed ≤ 10 m/s Repeatability ≤ ± 0.1 mm Temperature drift ≤ 0.1 mm Hysteresis ≤ 1 mm Electrical data Operating voltage U _B 1030 VDC Ripple U _{SS} ≤ 10 % U _{Bmax} DC rated operating current I _S ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I _S ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data 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 with connector, M8 × 1		4685723
Repeatability ≤ ± 0.1 mm Temperature drift ≤ 0.1 mm Hysteresis ≤ 1 mm Electrical data 0 perating voltage U ₆ Operating voltage U ₈ 1030 VDC Ripple U ₈ ≤ 10 % U _{Benax} DC rated operating current I ₈ ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I ₈ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Pesign 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 with connector, M8 × 1	General data	
Temperature drift ≤ 0.1 mm Hysteresis ≤ 1 mm Electrical data Operating voltage U _B 1030 VDC Ripple U _{ss} ≤ 10 % U _{Bmax} DC rated operating current I _B ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I _B ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data 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 with connector, M8 x 1	Pass speed	≤ 10 m/s
Hysteresis ≤ 1 mm Electrical data Operating voltage U _s 1030 VDC Ripple U _{ss} ≤ 10 % U _{tmax} DC rated operating current I _s ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I _s ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Design Rectangular, UNT Dimensions 28 x 5 x 6 mm Housing material Plastic, PP Tightening torque fixing screw 0.4 Nm Electrical connection Cable with connector, M8 × 1	Repeatability	≤ ± 0.1 mm
Electrical data Operating voltage U _B Ripple U _{BE} S 10 % U _{Bemax} DC rated operating current I _{BE} No-load current S 15 mA Residual current S 0.1 mA Isolation test voltage O.5 kV Short-circuit protection Voltage drop at I _{BE} Wire break/reverse polarity protection Output function Switching frequency 1 kHz Mechanical data Design Rectangular, UNT Dimensions 28 x 5 x 6 mm Housing material Plastic, PP Tightening torque fixing screw Cable with connector, M8 × 1	Temperature drift	≤ 0.1 mm
Operating voltage Us 1030 VDC Ripple Uss ≤ 10 % Usmax DC rated operating current Is ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at Is ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Design 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 with connector, M8 x 1	Hysteresis	≤ 1 mm
Ripple Uss ≤ 10 % Usmax DC rated operating current Is ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at Is ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data 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 with connector, M8 × 1	Electrical data	
DC rated operating current I₀ ≤ 150 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data 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 with connector, M8 × 1	Operating voltage U _B	1030 VDC
No-load current ≤ 15 mA Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Design 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 with connector, M8 × 1	Ripple U _{ss}	≤ 10 % U _{Bmax}
Residual current ≤ 0.1 mA Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Pesign 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 with connector, M8 x 1	DC rated operating current I _o	≤ 150 mA
Isolation test voltage 0.5 kV Short-circuit protection yes/Cyclic Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Pesign 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 with connector, M8 × 1	No-load current	≤ 15 mA
Short-circuit protection Voltage drop at I₀ Vire break/reverse polarity protection Output function Switching frequency 1 kHz Mechanical data Design Rectangular, UNT Dimensions 28 x 5 x 6 mm Housing material Plastic, PP Active area material Plastic, PP Tightening torque fixing screw Cable with connector, M8 × 1	Residual current	≤ 0.1 mA
Voltage drop at I₀ ≤ 1.8 V Wire break/reverse polarity protection yes/Complete Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data 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 with connector, M8 × 1	Isolation test voltage	0.5 kV
Wire break/reverse polarity protection Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data Design Rectangular, UNT Dimensions 28 x 5 x 6 mm Housing material Plastic, PP Active area material Plastic, PP Tightening torque fixing screw Cable with connector, M8 × 1	Short-circuit protection	yes/Cyclic
Output function 3-wire, NO contact, PNP Switching frequency 1 kHz Mechanical data 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 with connector, M8 × 1	Voltage drop at I _e	≤ 1.8 V
Switching frequency 1 kHz Mechanical data 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 with connector, M8 × 1	Wire break/reverse polarity protection	yes/Complete
Mechanical data 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 with connector, M8 × 1	Output function	3-wire, NO contact, PNP
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 with connector, M8 × 1	Switching frequency	1 kHz
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 with connector, M8 × 1	Mechanical data	
Housing material Plastic, PP Active area material Plastic, PP Tightening torque fixing screw 0.4 Nm Electrical connection Cable with connector, M8 × 1	Design	Rectangular, UNT
Active area material Plastic, PP Tightening torque fixing screw 0.4 Nm Electrical connection Cable with connector, M8 × 1	Dimensions	28 x 5 x 6 mm
Tightening torque fixing screw 0.4 Nm Electrical connection Cable with connector, M8 × 1	Housing material	Plastic, PP
Electrical connection Cable with connector, M8 × 1	Active area material	Plastic, PP
	Tightening torque fixing screw	0.4 Nm
Cable quality Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m	Electrical connection	Cable with connector, M8 × 1
	Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m

Features

- For T-groove cylinders without mounting accessories
- Optional accessories for mounting on other cylinder designs
- ■One-hand mounting possible
- ■Stable mounting
- Magneto-resistive sensor
- ■DC 3-wire, 10...30 VDC
- ■NO contact, PNP output
- Pigtail with male end, M8 x 1

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.

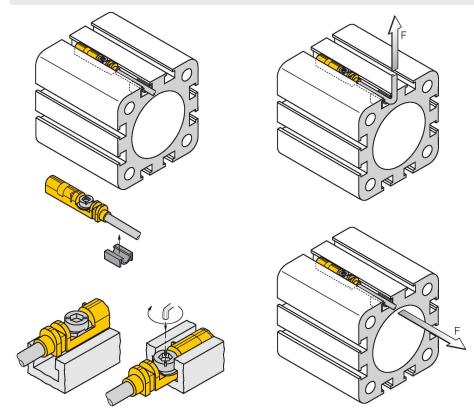


Technical data

	Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Core cross-section	3 x 0.14 mm ²
Environmental conditions	
Ambient temperature	-25+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Mounting on the following profiles	
Cylindrical design	
Switching state	LED, Yellow
Included in delivery	cable clip

Mounting instructions

Mounting instructions/Description



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 lefthand 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.

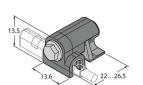
TURCK

Accessories

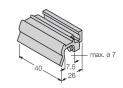
KLZCD2-UNT

6970418

KLZ1-INT 6970410



Mounting bracket for mounting magnetic field sensors for T-grooves on a CleanDesign cylinder with mounting rail



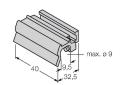
Accessories for mounting the sensors BIM-INT and BIM-UNT on tie-rod cylinders; cylinder diameter: 32... 40 mm; material: Aluminum; further mounting accessories for other cylinder diameters on request

KLZ2-INT

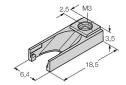
6970411

UNT-STOPPER

4685751



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



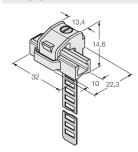
Accessories for finetuning the switchpoint on T-groove cylinders; snap-locked in the BIM-UNT fixture; suited for multiple use; material: plastic

KLRC-UNT1

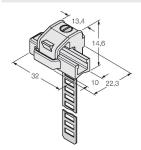
6970626

KLRC-UNT2

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Mounting bracket for mounting magnetic field sensors on round cylinders; cylinder diameter: 8...25 mm; material: PA 6I/6T / nickel silver; fire-hazard classification acc. to UL94 - V2



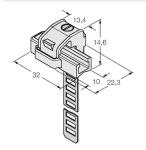
Mounting bracket for mounting magnetic field sensors on round cylinders; cylinder diameter: 25...63 mm; material: PA 6I/6T / nickel silver; fire-hazard classification acc. to UL94 - V/2

KLRC-UNT3

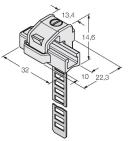
6970628

KLRC-UNT4





Mounting bracket for mounting magnetic field sensors on round cylinders; cylinder diameter: 63...130 mm; material: PA 6I/6T / nickel silver; fire-hazard classification acc. to UL94 - V2



Mounting bracket for mounting magnetic field sensors on round cylinders; cylinder diameter: 130... 250 mm; material: PA 6I/6T / nickel silver; fire-hazard classification acc. to UL94 - V2

KLDT-UNT2

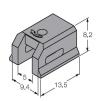
6913351

KLDT-UNT3

6913352



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



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

