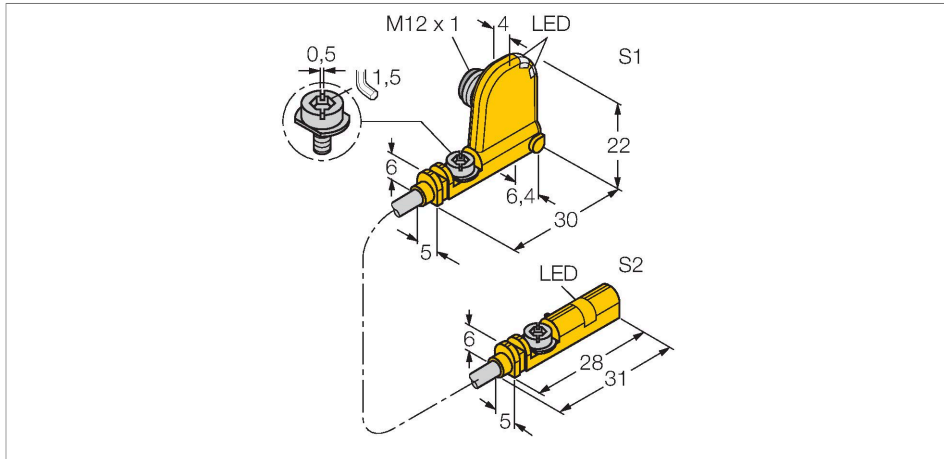


# BIM-UNT-0.1-UNT-2AP6X3-H1141

## Magnetic Field Sensor – For Pneumatic Cylinders



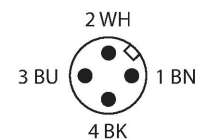
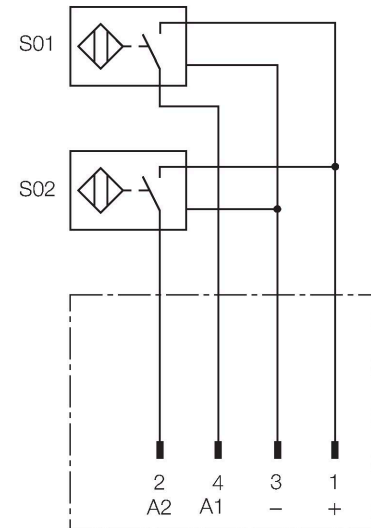
### Features

- 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
- Optimally suited for monitoring two switching points on a cylinder
- No Y-junction required
- Magneto-resistive sensor
- 2x NO contacts, PNP output
- DC 4-wire, 10...30 VDC

### Technical data

Type	BIM-UNT-0.1-UNT-2AP6X3-H1141
Ident. no.	4685734
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 <sub>s</sub>
DC rated operational current	≤ 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 <sub>e</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, NO contact, PNP
Switching frequency	1 kHz
<b>Design</b>	<b>Rectangular, UNT</b>
Dimensions	30 x 5 x 22 mm
Housing material	Plastic, PP
Active area material	Plastic, PP
Tightening torque fixing screw	0.4 Nm
Electrical connection	Connector, M12 × 1


### Wiring diagram



### Functional principle

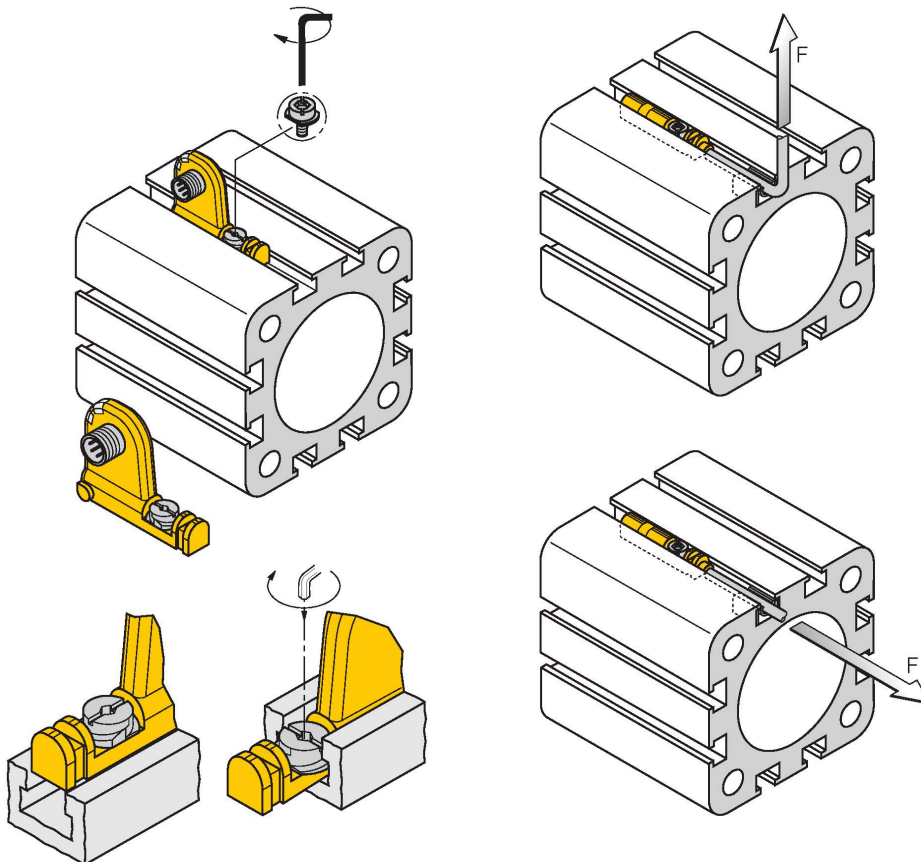
Magnetic field sensors are activated by magnetic fields and are used, in particular, for the detection of the piston position in pneumatic cylinders. As magnetic fields can permeate non-magnetizable metals, they detect a permanent magnet attached to the piston through the aluminium cylinder wall.

## Technical data

Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.1 m
	Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Core 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
<b>Mounting on the following profiles</b>	
Cylindrical design	
Power-on indication	LED, Green
Switching state	2 x LEDs, Yellow/Yellow
Included in delivery	2x cable clip

## Mounting instructions

### Mounting instructions/Description

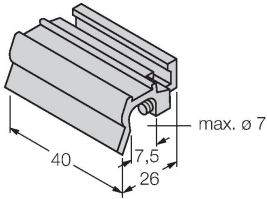


Insert sensor S2 from above; insert sensor S1 laterally in the groove with the tip first, then click-in. Mount the sensors as follows using the patented wing screw: The wing screw features a left-hand female thread. Two small plastic lips keep the screw in position, ready-to-install. Turn the screw clockwise. 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. 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  $F=100N$  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.

## Accessories

KLZ1-INT

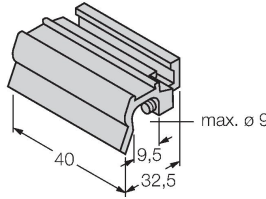
6970410



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

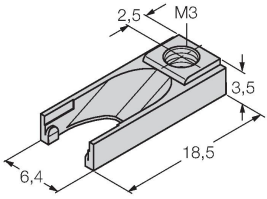
6970411



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

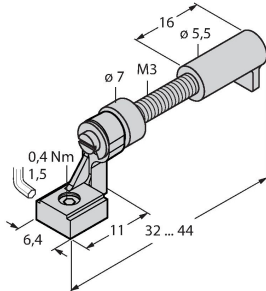
4685751



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

UNT-JUSTAGE

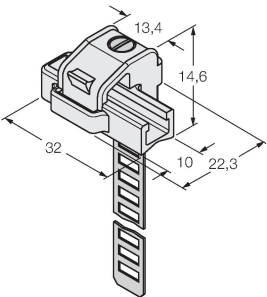
4685750



Accessories for fine-tuning of the switching point on T-groove cylinders; snap-lock mounting in the BIM-UNT sensor fixture; suited for multiple use; material: Metal/plastic

KLRC-UNT1

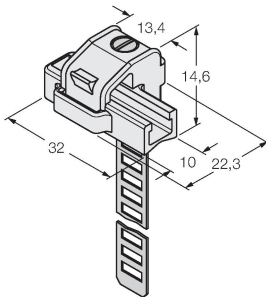
6970626



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

KLRC-UNT2

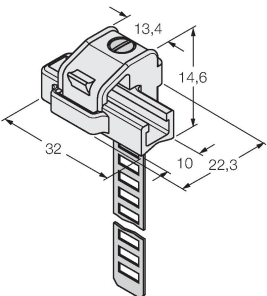
6970627



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 - V2

KLRC-UNT3

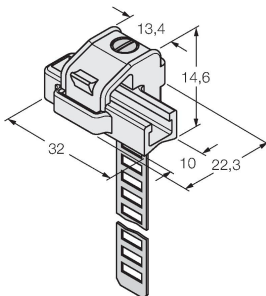
6970628



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

KLRC-UNT4

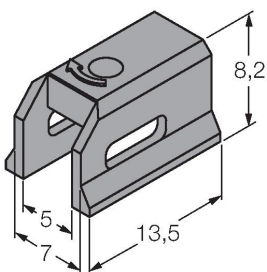
6970629



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

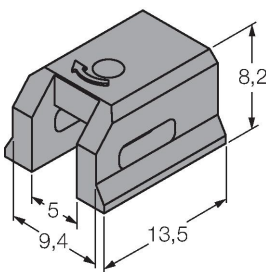
6913351



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

KLDT-UNT3

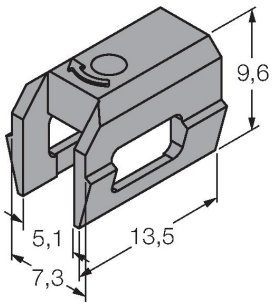
6913352



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