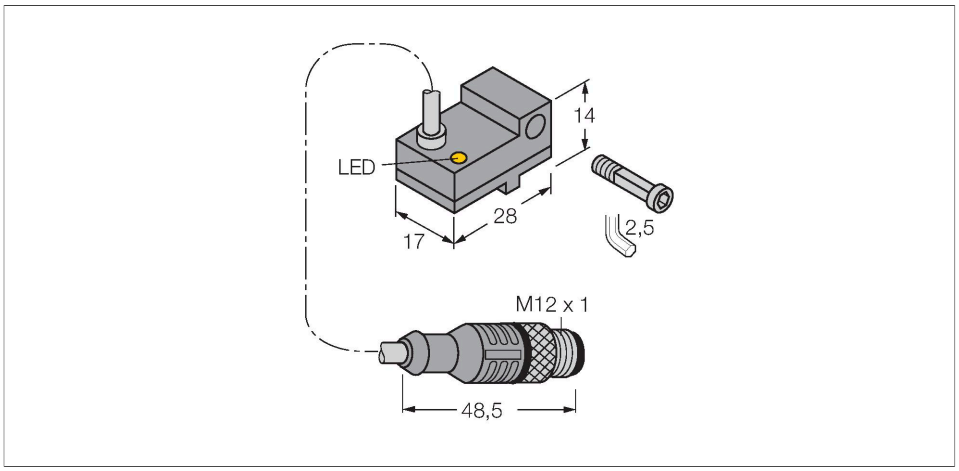
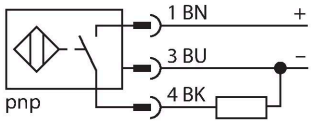
BIM-NST-AP6X-0.3XOR-RS4/S34
Magnetic Field Sensor – for pneumatic cylinders (magnetic-field immune)



Features

- Plastic, PA12-GF30
- Magnetic-inductive sensor
- Weld resistant to AC fields of 50…60 Hz
- DC 3-wire, 10…30 VDC
- NO contact, PNP output
- Pigtail with male end, M12 x 1

Wiring diagram



Technical data

Type	BIM-NST-AP6X-0.3XOR-RS4/S34
Ident. no.	1644109
Special version	S34 corresponds to: Weld-field immune proximity sensors
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	≤ 200 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_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
Design	Rectangular, NST
Dimensions	28 x 17 x 14 mm
Housing material	Plastic, PA12-GF30

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.
Weld-field immune permaprox sensors "freeze" the switching status when detecting a magnetic AC field (50…60 Hz). In this way, false switching operations are prevented during the welding process. When the AC field disappears, the sensors resume standard operation.

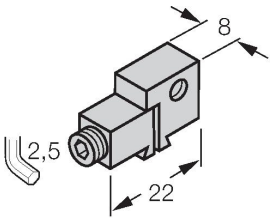
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Technical data

Active area material	Plastic, PA12-GF30
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 5.2 mm, LifXX, PVC, 0.3 m
Core cross-section	3 x 0.34 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
Mounting on the following profiles	
Cylindrical design	###
Switching state	LED, Yellow
Included in delivery	1 x screw M3x20, 1 x tension bolt, 1 x spring washer

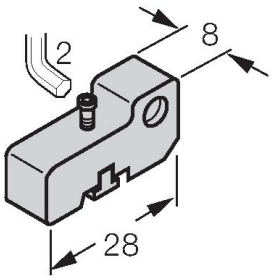
Accessories

KLN3 6970504



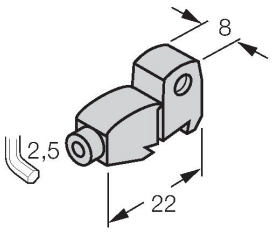
Mounting bracket for mounting magnetic field sensors on dovetail groove cylinders or T-groove cylinders; clamping width: 5.2… 13.5 mm; material: Anodized aluminum

KLN-SMC 6970503



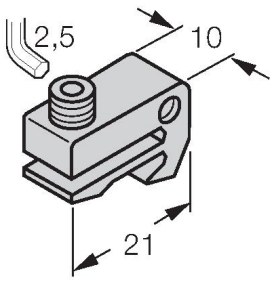
Mounting bracket for mounting magnetic field sensors on SMC cylinders; clamping width 4 mm; material: Anodized aluminum

KLF1 6970401



Mounting bracket for mounting magnetic field sensors on profile cylinders with external dovetail guide; for all cylinder diameters, material: Anodized aluminum

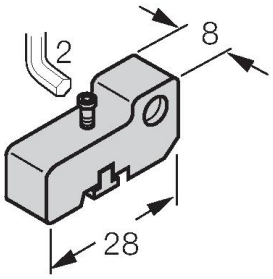
KLF2 6970402



Mounting bracket for mounting magnetic field sensors on profile cylinders (IMI Norgren); cylinder diameter: 32…100 mm; material: Anodized aluminum

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SMC-325	A3106



Mounting bracket for mounting magnetic field sensors on SMC cylinders; clamping width 4 mm; material: Anodized aluminum

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