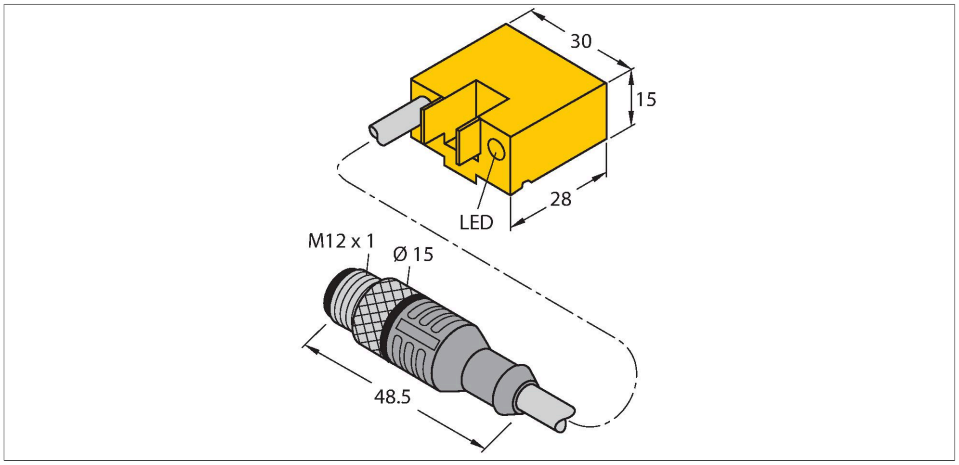
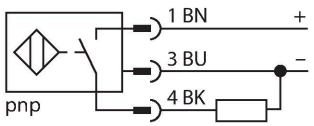
BIM-AKT-AP6X-0.2-RS4T/S235 W/KLA1
Magnetic Field Sensor – Magnetic-inductive Proximity Sensor



Features

- Rectangular, height 15 mm
- Concentric active face
- Plastic, PA12-GF30
- Increased sensitivity
- DC 3-wire, 10…30 VDC
- NO contact, PNP output
- Pigtail with male end, M12 x 1

Wiring diagram



Functional principle

Magnetic field sensors are activated by magnetic fields and are especially suited for piston position detection in pneumatic cylinders. Based on the fact that magnetic fields can permeate non-magnetizable metals, it is possible to detect a permanent magnet attached to the piston through the aluminium wall of the cylinder.

Technical data

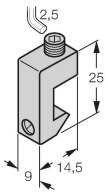
Type	BIM-AKT-AP6X-0.2-RS4T/S235 W/KLA1
ID	4675097
Special version	S235 Corresponds to:Special calibration (increased sensitivity)
General data	
Pass speed	≤ 10 m/s
Repeatability	≤ ± 0.1 mm
Temperature drift	≤ 0.1 mm
Hysteresis	≤ 1 mm
Electrical data	
Operating voltage U_B	10…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_e	≤ 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 break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
Mechanical data	
Design	Rectangular, AKT
Dimensions	28 x 30 x 15 mm

Technical data

Housing material	Plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 4 mm, Gray, LifYY, PVC, 0.2 m
Core cross-section	3 x 0.25 mm²
Environmental conditions	
Ambient temperature	-25…+70 °C
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, Red
Included in delivery	KLA1

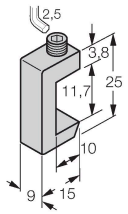
Accessories

KLA1 69700



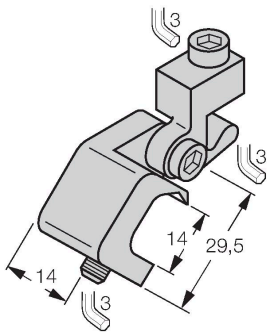
Mounting bracket for mounting magnetic field sensors on tie-rod cylinders; cylinder diameter 32… 50 mm, material: Anodized aluminum

KLA3 69702



Mounting bracket for mounting magnetic field sensors on tie-rod cylinders; cylinder diameter 32… 63 mm; material: Stainless steel

KLA2 69701



Mounting bracket for mounting magnetic field sensors on tie-rod cylinders; cylinder diameter 40… 125 mm; material: Aluminum