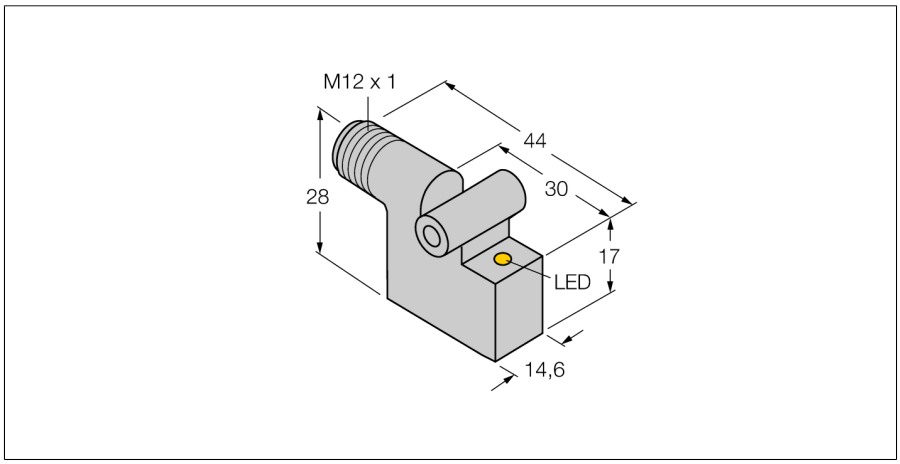
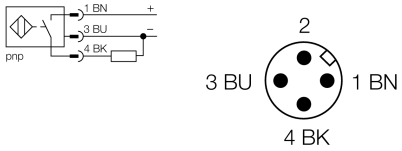
Magnetic field sensor for pneumatic cylinders BIM-IKE-AP6X-H1141

Industrial Automation



- **Rectangular, height 28 mm**
- **Metal, GD-Zn**
- **Magnetic-inductive sensor**
- **DC 3-wire, 10…30 VDC**
- **NO contact, PNP output**
- **Male connector, M12 x 1**

Wiring diagram



Type code	BIM-IKE-AP6X-H1141
Ident no.	46216
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…30VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation 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, IKE
Dimensions	30 x 14.6 x 28 mm
Housing material	metal, GD-Zn
Material active face	Plastic, PA
Connection	male, M12 x 1
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

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.

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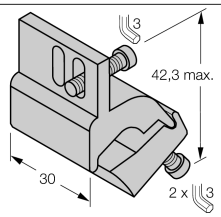
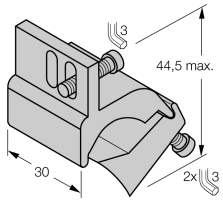
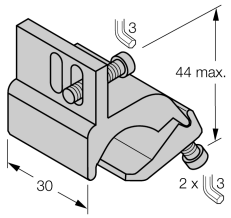
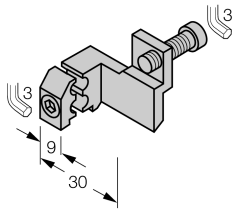
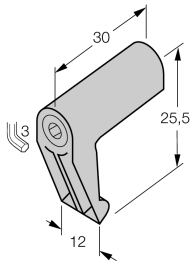
Accessories

Type code	Ident no.	Description	Dimension drawing
KLI 5Z KLEMMSTÜCK	6971803	Mounting on ◯ tie-rod cylinders; cylinder diameter 32…63 mm; material: Aluminum	
KLI 6Z KLEMMSTÜCK	6971806	Mounting on ◯ tie-rod cylinders; cylinder diameter 50…125 mm; material: Aluminum	
KLI 6 KLEMMSTÜCK	6971805	Mounting on ▢ profile cylinder; cylinder diameter 50…100 mm; material: Aluminium	
KLI 7 KLEMMSTÜCK	6971810	Mounting on ▢ profile cylinder with external dovetail grooves; diameter 32…200 mm; material: Aluminium	
KLI 1 KLEMMSTÜCK	69710	Mounting on ◯ tie-rod cylinders; cylinder diameter 32…100 mm; material: Die-cast zinc	

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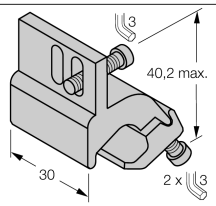
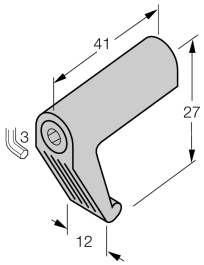
Accessories

Type code	Ident no.	Description	Dimension drawing
KLI 5 KLEMMSTÜCK	6971802	Mounting on ▢ profile cylinder; cylinder diameter 32…50 mm; material: Aluminium	
KLI 3 KLEMMSTÜCK	69712	Mounting on ◯ tie-rod cylinders; cylinder diameter 63…160 mm; material: Die-cast zinc	

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