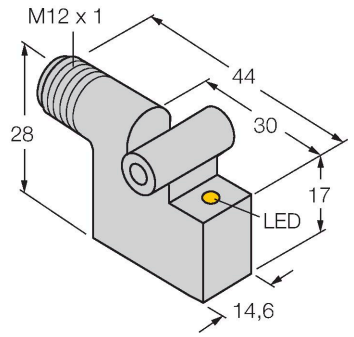
BIM-IKT-AP6X-H1141
Magnetic Field Sensor – For Pneumatic Cylinders



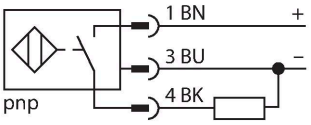
Technical data

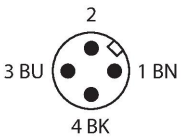
Type	BIM-IKT-AP6X-H1141
Ident. no.	46210
Pass speed	≤ 10 m/s
Repeatability	≤ ± 0.1 mm
Temperature drift	≤ 0.1 mm
Hysteresis	≤ 1 mm
Ambient temperature	-25…+70 °C
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 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, IKT
Dimensions	30 x 14.6 x 28 mm
Housing material	Metal, GD-Zn
Active area material	Plastic, PA12-GF30
Electrical connection	Connector, M12 × 1
Vibration resistance	55 Hz (1 mm)

Features

- 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





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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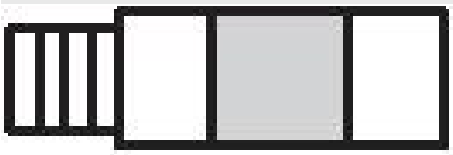
Technical data

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

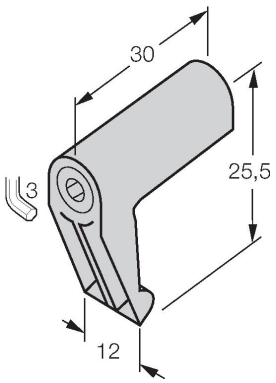
Mounting instructions

Mounting instructions/Description



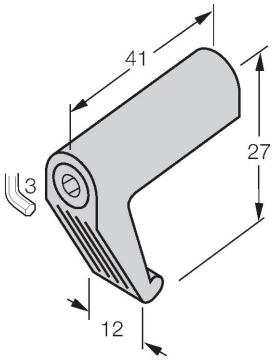
Accessories

KLI1	69710



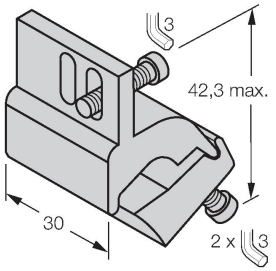
Mounting bracket for mounting magnetic field sensors on tie-rod cylinders; cylinder diameter: 32…100 mm; material: Die-cast Zinc

KLI3	69712



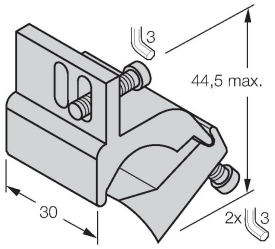
Mounting bracket for mounting magnetic field sensors on tie-rod cylinders; cylinder diameter: 63…160 mm; material: Die-cast Zinc

KLI5Z	6971803



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

KLI6Z	6971806



Mounting bracket for mounting magnetic field sensors on tie-rod cylinders; cylinder diameter: 50…125 mm; material: Aluminum

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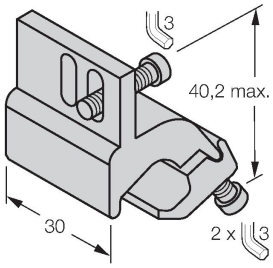
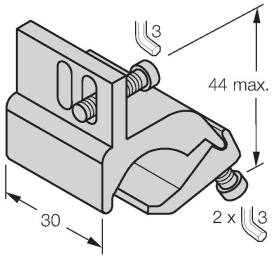
KLI5 6971802



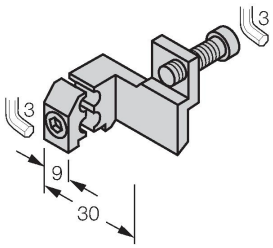
Mounting bracket for mounting magnetic field sensors on profile cylinders; cylinder diameter: 32…50 mm; material: Aluminum

KLI6 6971805



Mounting bracket for mounting magnetic field sensors on profile cylinders; cylinder diameter: 50…100 mm; material: Aluminum

KLI7 6971810



Mounting bracket for mounting magnetic field sensors on profile cylinders with external dovetail guide; cylinder diameter: 32…200 mm; material: Aluminum

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