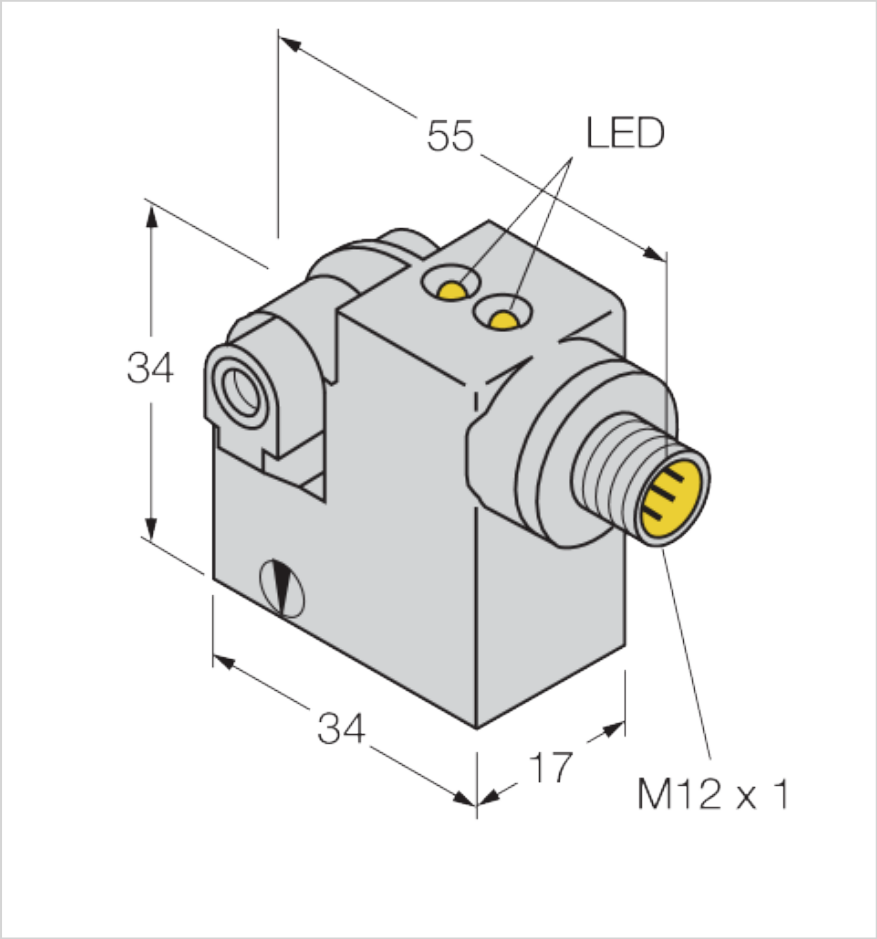


BIM-IKM-AP6X2-H1141/S34

Magnetic Field Sensor
for pneumatic cylinders (magnetic-field immune)



Typ	BIM-IKM-AP6X2-H1141/S34
Ident-No.	46272

Features

- Rectangular, height 34 mm
- Metal, GD-Zn
- Magnetic-inductive sensor
- Weld-proof, resistant to AC fields of 50... 60 Hz
- DC 3-wire, 10...30 VDC
- NO, PNP output
- Connector, M12 × 1

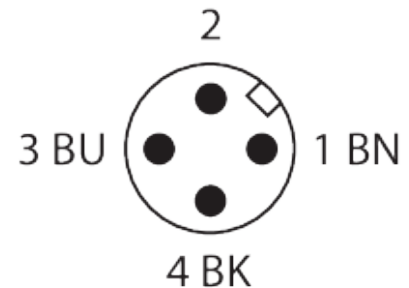
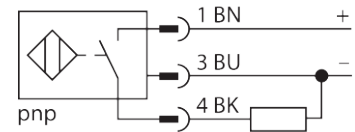
Technical data

General data	
Pass speed	≤ 1 m/s
Sensor shape fitting to cylindrical housing	tie-rod cylinders, profile cylinders
Special features	Resistant to magnetic fields
Application area	
Magnetic field immune	Immune to magnetic AC fields
Power supply	

Technical data

Operating voltage U_B	10...30 VDC
Voltage drop at I_e	$\leq 1,8$ V
Electrical data	
No-load current	15 mA
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes/Complete
DC rated operational current	≤ 200 mA
Isolation test voltage	$\leq 0,5$ kV
Residual current	$\leq 0,1$ mA
Residual ripple	≤ 10 % U_{SS}
Switching frequency	0,02 kHz
Accuracy/deviation	
Hysteresis	≤ 1 mm
Repeatability	$\leq \pm 0,1$ mm
Temperature drift	$\leq 0,1$ mm
Mechanical data	
Design	Rectangular, IKM
Construction type designation	IKM
Dimensions	34 mm x 17 mm x 34 mm
Housing material	Metal, GD-Zn
Active area material	Plastic, PA12-GF30
Electrical connection	Connector, M12 x 1
Mounting on the following profiles	
Number of pins	4
Ambient conditions	
Ambient temperature	-25...+70 °C
Pollution degree	3
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP67
Tests/approvals	
MTTF	2283 Years acc. to SN 29500 (Ed. 99) 40 °C
Displays/controls	
Power-on indication	LED, Green
Switching state	LED, Yellow

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, the sensors can detect a permanent magnet attached to the piston through the aluminum cylinder wall.

Weld-proof permapprox 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.

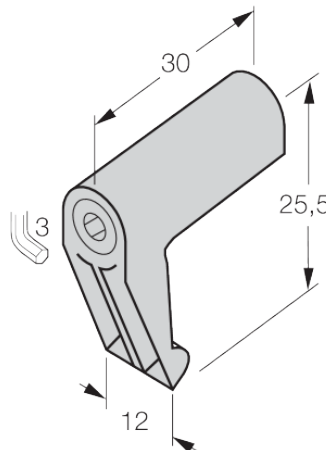
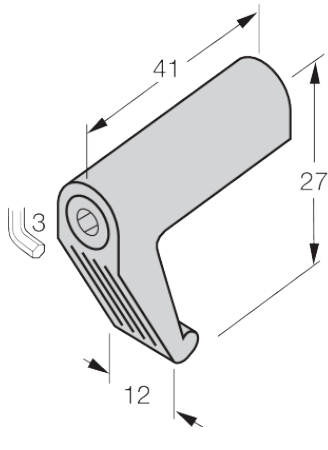
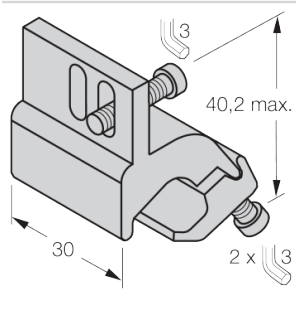
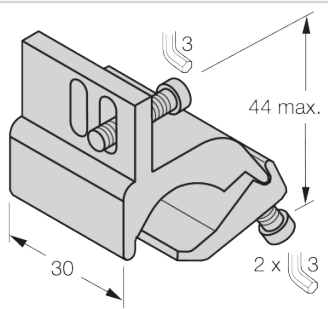
Technical data

Comments	
Special version	S34 = Resistant to magnetic fields

Assembly instructions

	Installation information: Aktive Fläche im vorderen Bereich der Unterseite.
--	--

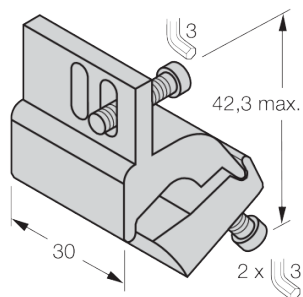
Mounting accessories

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
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

Mounting accessories

KLI5Z

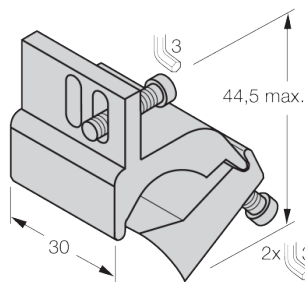
6971803



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