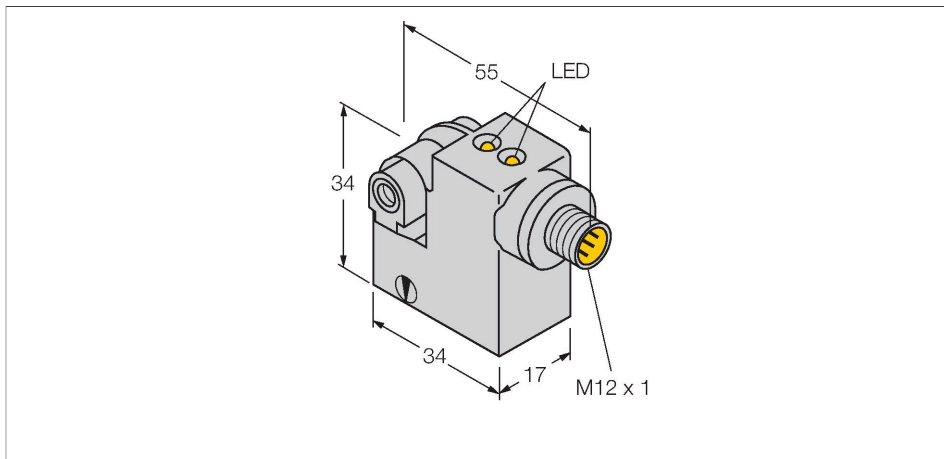


BIM-IKM-AP6X2-H1141/S34

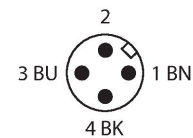
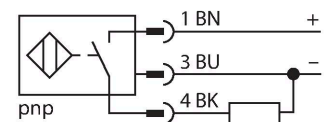
Magnetic Field Sensor – for pneumatic cylinders (magnetic-field immune)



Features

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

Wiring diagram



Technical data

Type	BIM-IKM-AP6X2-H1141/S34
Ident. no.	46272
Special version	S34 corresponds to: Weld-field immune proximity sensors
Pass speed	≤ 1 m/s
Secured operating distance	≤ (0.81 × S _n) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
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	0.02 kHz

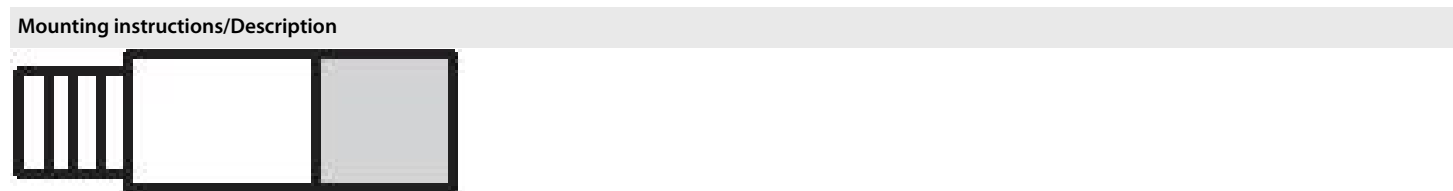
Functional principle

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 permprox 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.

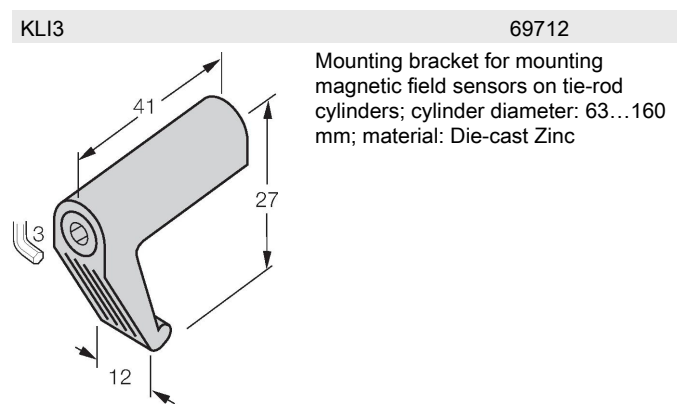
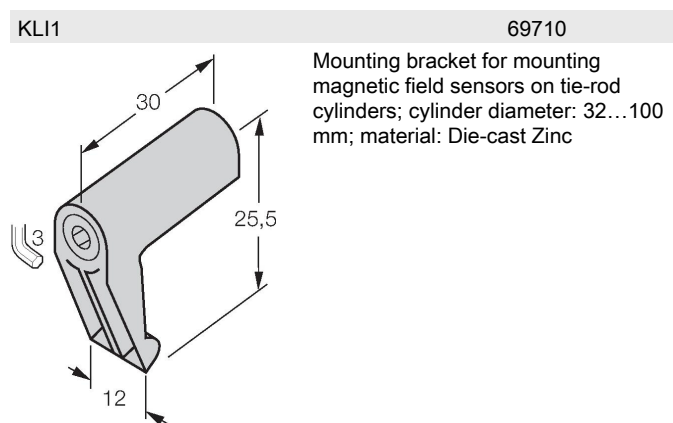
Technical data

Design	Rectangular, IKM
Dimensions	34 x 17 x 34 mm
Housing material	Metal, GD-Zn
Active area material	Plastic, PA12-GF30
Electrical connection	Connector, 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	○ ##
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

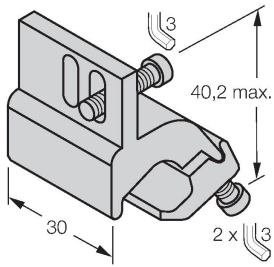


Accessories



KL15

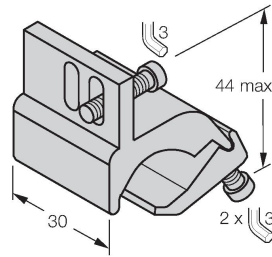
6971802



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

KL16

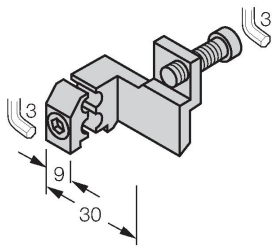
6971805



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

KL17

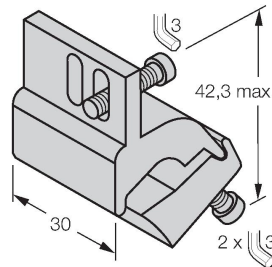
6971810



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

KL15Z

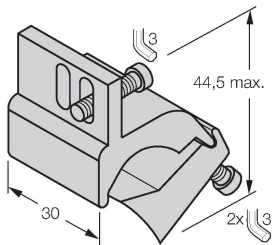
6971803



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

KL16Z

6971806



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