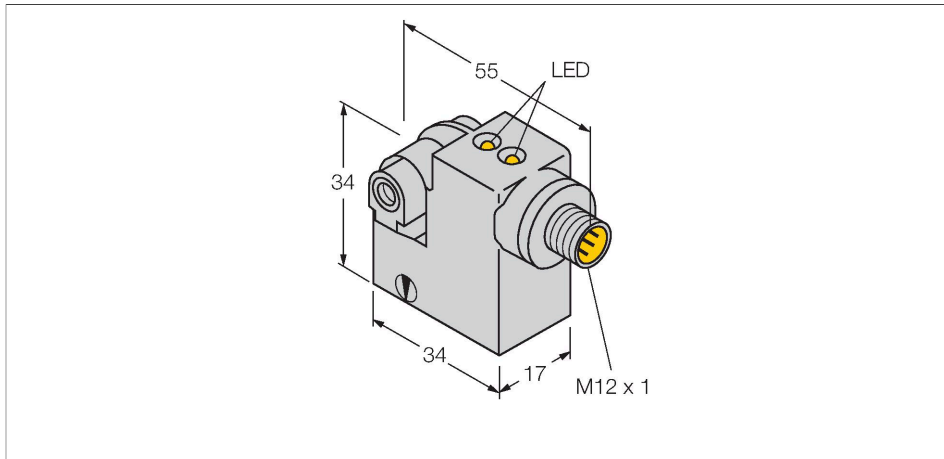


BIM-IKM-AD4X-H1144/S34

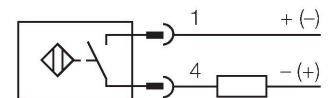
Magnetic Field Sensor – for pneumatic cylinders (magnetic-field immune)



Features

- Rectangular, height 34 mm
- Metal, GD-Zn
- Magnetic-inductive sensor
- Weld resistant to AC fields of 50...60 Hz
- DC 2-wire, 10...65 VDC
- NO contact
- Male connector M12 x 1

Wiring diagram



Technical data

| | |
|--|---|
| Type | BIM-IKM-AD4X-H1144/S34 |
| ID | 4484001 |
| Special version | S34 Corresponds to: Weld-field immune proximity sensors |
| General data | |
| Pass speed | ≤ 1 m/s |
| Repeatability | ≤ ± 0.1 mm |
| Temperature drift | ≤ 0.1 mm |
| Hysteresis | ≤ 1 mm |
| Electrical data | |
| Operating voltage U_b | 10...65 VDC |
| Ripple U_{ss} | ≤ 10 % U_{Bmax} |
| DC rated operating current I_o | ≤ 100 mA |
| Residual current | ≤ 0.8 mA |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes/Cyclic |
| Voltage drop at I_o | ≤ 4 V |
| Wire break/reverse polarity protection | no/Complete |
| Output function | NO contact, 2-wire |
| Switching frequency | 0.015 kHz |
| Mechanical data | |
| Design | Rectangular, IKM |
| Dimensions | 34 x 17 x 34 mm |

Functional principle

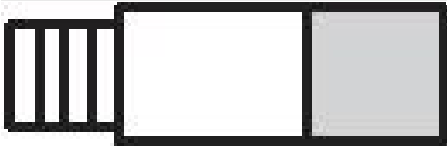
Magnetic field sensors are activated by magnetic fields and are used, in particular, for the detection of the piston position in pneumatic cylinders. As magnetic fields can permeate non-magnetizable metals, they detect a permanent magnet attached to the piston through the aluminium cylinder wall. Weld-field 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

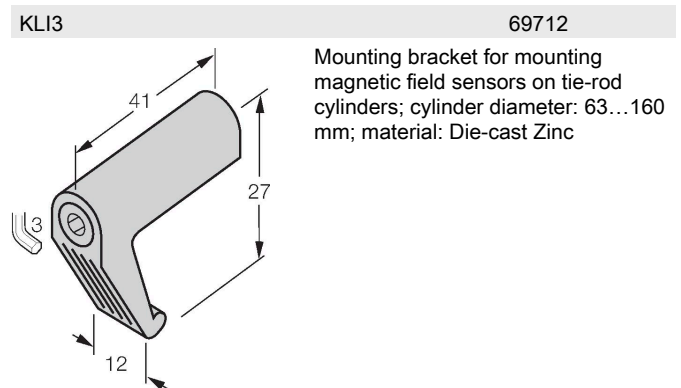
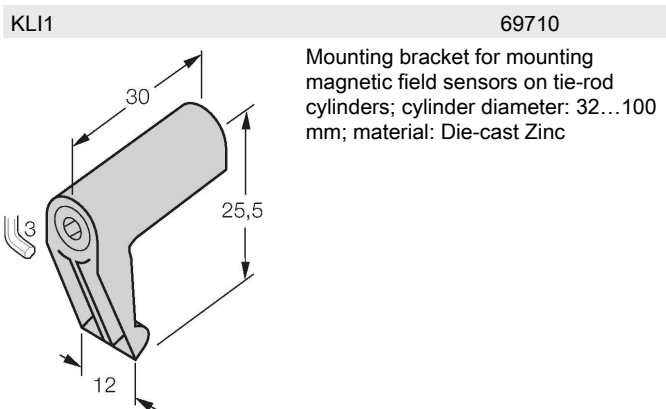
| | |
|------------------------------------|--|
| Housing material | Metal, GD-Zn |
| Active area material | Plastic, PA12-GF30 |
| Electrical connection | Connector, M12 × 1 |
| Environmental conditions | |
| Ambient temperature | -25...+70 °C |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 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, Yellow |

Mounting instructions

Mounting instructions/Description

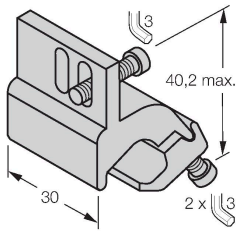


Accessories



KL15

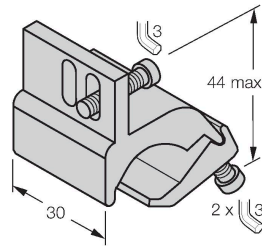
6971802



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

KL16

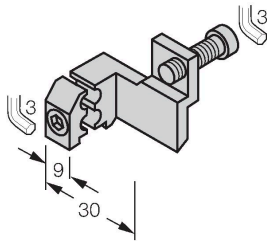
6971805



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

KL17

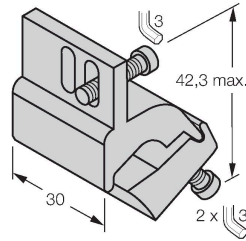
6971810



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

KL15Z

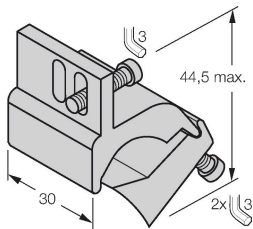
6971803



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