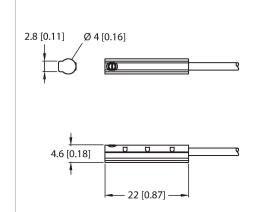


BIM-UNC-AP6X Magnetic Field Sensor – For Pneumatic Cylinders



Technical data

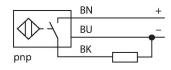
| Туре | BIM-UNC-AP6X |
|--|-----------------------------------|
| ID | 100001904 |
| General data | |
| Pass speed | ≤ 3 m/s |
| Repeatability | ≤ ± 0.1 mm |
| Temperature drift | ≤ 0.3 mm |
| Hysteresis | ≤ 1 mm |
| Electrical data | |
| Operating voltage $U_{\scriptscriptstyle B}$ | 1130 VDC |
| Ripple U _{ss} | ≤ 10 % U _{Bmax} |
| DC rated operating current I _e | ≤ 100 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 break/reverse polarity protection | yes/Complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 0.3 kHz |
| Mechanical data | |
| Design | Rectangular, UNC |
| Dimensions | 22 x 4 x 4.6 mm |
| Housing material | Plastic, PP-GF20 |
| Active area material | plastic, PP-GF20 |
| Tightening torque fixing screw | 0.1 Nm |
| Electrical connection | Cable |
| Cable quality | Ø 2 mm, Gray, Lif9Y-11Y, PUR, 2 m |
| | |

Features

For SMC C-groove cylinders without mounting accessories

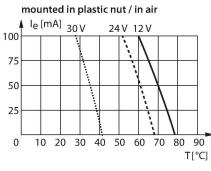
- One-hand mounting possible
- Stable mounting
- Magneto-resistive sensor
- DC 3-wire, 11...30 VDC
- NO contact, PNP output
- Cable connection

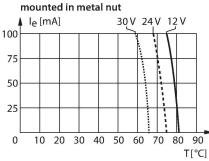
Wiring diagram



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, they detect a permanent magnet attached to the piston through the aluminium cylinder wall.





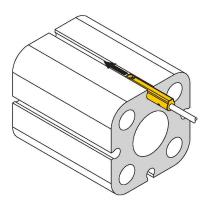


Technical data

| Core cross-section | 3 x 0.08 mm ² |
|------------------------------------|---|
| Litz wire | 40 x0.05 mm |
| 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 |
| Included in delivery | Cable clip |

Mounting instructions

Mounting instructions/Description



The sensor is mounted in the groove from the side. If the screw is turned clockwise, it moves out of the thread and pushes the sensor upwards towards the cylinder. This fixes the sensor in place. A quarter turn of the screw with a slotted screwdriver is sufficient to fasten the sensor so that it doesn't vibrate. A tightening torque of 0.1 Nm is sufficient for safe mounting without damaging the cylinder. A cable clip is included in the scope of delivery. It enables smooth cable routing in the groove and ensures that the cable is fastened as securely as possible. The corresponding accessories for mounting on other cylindrical housings must be ordered separately.