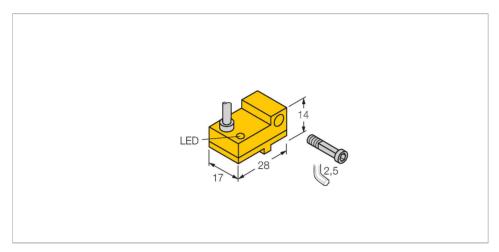


BIM-NST-RP6X/S235 Magnetic Field Sensor – Magnetic-inductive Proximity Sensor



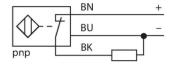
Technical data

Type BIM-NST-RP6X/S235 ID 4685512 Special version S235 Corresponds to:Special calibration (increased sensitivity) General data Pass speed $\leq 10 \text{ m/s}$ Repeatability $\leq \pm 0.1 \text{ mm}$ Temperature drift $\leq 0.1 \text{ mm}$ Hysteresis $\leq 1 \text{ mm}$ Electrical data Operating voltage U_{B} 1030 VDC Ripple U_{ss} $\leq 10 \% U_{\text{Bmax}}$ DC rated operating current I_{e} $\leq 200 \text{ mA}$ No-load current $\leq 15 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$ Isolation test voltage 0.5 kV
(increased sensitivity) $General data$ $Pass speed$
Pass speed ≤ 10 m/s Repeatability ≤ ± 0.1 mm Temperature drift ≤ 0.1 mm Hysteresis ≤ 1 mm Electrical data 0 perating voltage U_B 1030 VDC Ripple U_{ss} ≤ 10 % U_{Bmax} DC rated operating current I_e ≤ 200 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA
Repeatability ≤ ± 0.1 mm Temperature drift ≤ 0.1 mm Hysteresis ≤ 1 mm Electrical data 0 perating voltage U_B 1030 VDC Ripple U_{ss} ≤ 10 % U_{Bmax} DC rated operating current I_e ≤ 200 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA
Temperature drift ≤ 0.1 mm Hysteresis ≤ 1 mm Electrical data 0 perating voltage U_B 1030 VDC Ripple U_{ss} ≤ 10 % U_{Bmax} DC rated operating current I_e ≤ 200 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA
Hysteresis ≤ 1 mm Electrical data 1030 VDC Operating voltage U_B 1030 VDC Ripple U_{ss} ≤ $10 \% U_{Bmax}$ DC rated operating current I_e ≤ 200 mA No-load current ≤ 15 mA Residual current ≤ 0.1 mA
Electrical dataOperating voltage U_B 1030 VDC Ripple U_{ss} $\leq 10 \% U_{Bmax}$ DC rated operating current I_e $\leq 200 \text{ mA}$ No-load current $\leq 15 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$
Operating voltage U_B 1030 VDC Ripple U_{ss} \leq 10 % U_{Bmax} DC rated operating current I_e \leq 200 mA No-load current \leq 15 mA Residual current \leq 0.1 mA
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DC rated operating current I_e $\leq 200 \text{ mA}$ No-load current $\leq 15 \text{ mA}$ Residual current $\leq 0.1 \text{ mA}$
No-load current ≤ 15 mA Residual current ≤ 0.1 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, NC contact, PNP
Switching frequency 1 kHz
Mechanical data
Design Rectangular, NST
Dimensions 28 x 17 x 14 mm

Features

- Plastic, PA12-GF30
- ■Increased sensitivity
 ■DC 3-wire, 10...30 VDC
- ■NC contact, PNP output
- Cable connection

Wiring diagram



Functional principle

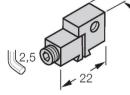
Magnetic field sensors are activated by magnetic fields and are especially suited for piston position detection in pneumatic cylinders. Based on the fact that magnetic fields can permeate non-magnetizable metals, it is possible to detect a permanent magnet attached to the piston through the aluminium wall of the cylinder.

Technical data

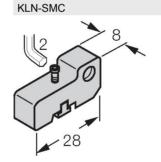
Housing material	Plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
Electrical connection	Cable
Cable quality	Ø 4 mm, Gray, LifYY, PVC, 2 m
Core cross-section	3 x 0.25 mm ²
Environmental conditions	
Ambient temperature	-25+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Mounting on the following profiles	
Cylindrical design	<u> </u>
Switching state	LED, Yellow
Included in delivery	1 x screw M3x20, 1 x tension bolt, 1 x spring washer

Accessories





magnetic field sensors on dovetail groove cylinders or T-T-groove cylinders; clamping width: 5.2... 13.5 mm; material: Anodized aluminum



Mounting bracket for mounting magnetic field sensors on SMC cylinders; clamping width 4 mm; material: Anodized aluminum

6970503

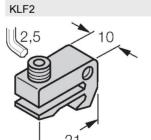
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KLF1

Mounting bracket for mounting magnetic field sensors on profile cylinders with external dovetail guide; for all cylinder diameters, material: Anodized aluminum

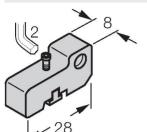
6970401



Mounting bracket for mounting magnetic field sensors on profile cylinders (IMI Norgren); cylinder diameter: 32...100 mm; material: Anodized aluminum



SMC-325 A3106



Mounting bracket for mounting magnetic field sensors on SMC cylinders; clamping width 4 mm; material: Anodized aluminum