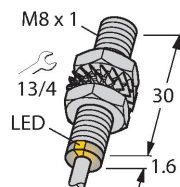


BI3U-EM08-AP6X Inductive Sensor



Features

- Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox3 sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

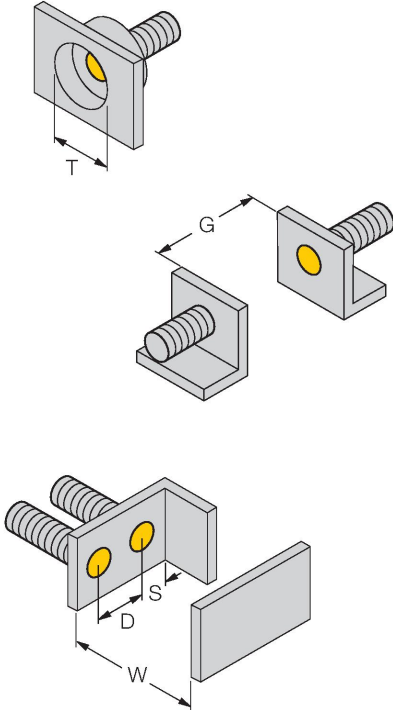
Technical data

Type	BI3U-EM08-AP6X
ID	4602411
General data	
Rated switching distance	3 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_e	≤ 150 mA
No-load current	≤ 20 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
DC field stability	200 mT
AC field stability	200 mT _{ss}
Insulation class	□
Switching frequency	1 kHz
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	31.6 mm

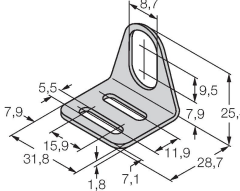
Technical data

Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12
End cap	Plastic, PA12
Max. tightening torque of housing nut	5 Nm
Electrical connection	Cable
Cable quality	Ø 3 mm, LiFY-11Y, PUR, 2 m
Core cross-section	3 x 0.14 mm ²
Environmental conditions	
Ambient temperature	0...+60 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description		
	Distance D	2 x B
	Distance W	3 x Sn
	Distance T	3 x B
	Distance S	1.5 x B
	Distance G	6 x Sn
	Diameter active area B	Ø 8 mm

Accessories

BST-08B	6947210	Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	MW08	6945008	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)
					
BSS-08	6901322	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	MBS80	69479	Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum
					