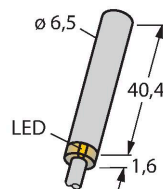


BI2U-EH6.5-AP6X

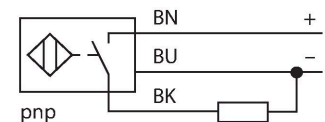
Inductive Sensor – With Extended Switching Distance



Features

- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- High switching frequency
- Recessed mountable
- 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. uprox+ 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.

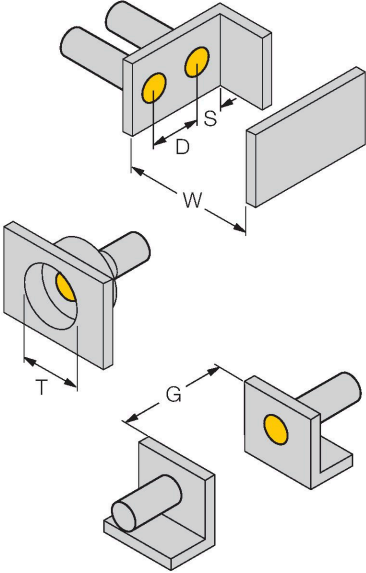
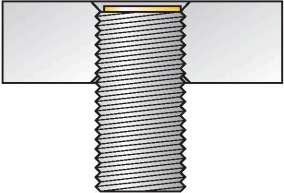
Technical data

Type	BI2U-EH6.5-AP6X
ID	4281150
General data	
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 150 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_o	≤ 1.8 V
Wire breakage/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	2 kHz
Mechanical data	
Design	Smooth barrel, 6,5 mm

Technical data

Dimensions	41.6 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12-GF20
End cap	Plastic, PP
Electrical connection	Cable
Cable quality	Ø 4 mm, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.25 mm ²
Environmental conditions	
Ambient temperature	-30...+85 °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												
												
	<table><tr><td>Distance D</td><td>13 mm</td></tr><tr><td>Distance W</td><td>6 mm</td></tr><tr><td>Distance T</td><td>20 mm</td></tr><tr><td>Distance S</td><td>10 mm</td></tr><tr><td>Distance G</td><td>12 mm</td></tr><tr><td>Diameter active area B</td><td>Ø 6.5 mm</td></tr></table>	Distance D	13 mm	Distance W	6 mm	Distance T	20 mm	Distance S	10 mm	Distance G	12 mm	Diameter active area B
Distance D	13 mm											
Distance W	6 mm											
Distance T	20 mm											
Distance S	10 mm											
Distance G	12 mm											
Diameter active area B	Ø 6.5 mm											
All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in 0.5 mm.												