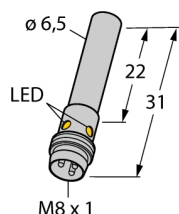


Inductive Sensor

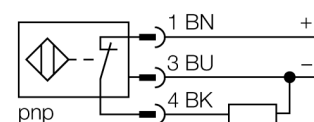
With Increased Switching Distance

BI2-EH6.5K-RP6X-V1131



- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4427 SO
- Large sensing range
- DC 3-wire, 10...30 VDC
- NC contact, PNP output
- M8 x 1 male connector

Wiring Diagram



Type	BI2-EH6.5K-RP6X-V1131
ID	4610021

General data	
Rated switching distance S_n	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %

Electrical data	
Operating voltage U_o	10...30 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 150 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 break/reverse polarity protection	yes/Complete
Output function	3-wire, NC contact, PNP
Switching frequency	3 kHz

Mechanical data	
Design	Smooth barrel, 6,5 mm
Dimensions	31 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12-GF30
Electrical connection	Connector, M8 x 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

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Switching state

LED, Yellow