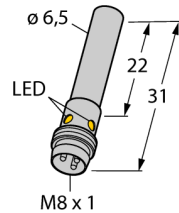
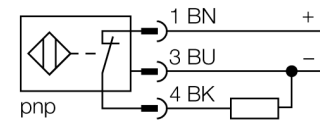


Inductive Sensor With Increased Switching Distance BI2-EH6.5K-RP6X-V1131



- 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	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_{s}$
DC rated operational current	≤ 150 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I_s	≤ 1.8 V
Wire breakage/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