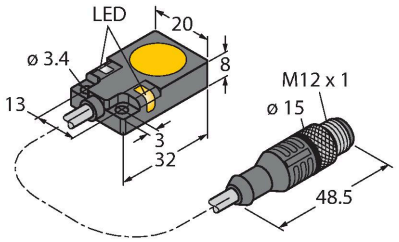
BI7-Q08-VP6X2-0.3-RS4.4
Inductive Sensor – With Increased Switching Distance



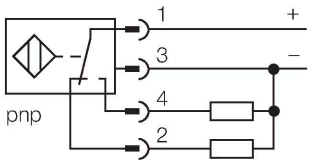
Technical data

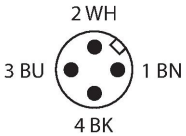
Type	BI7-Q08-VP6X2-0.3-RS4.4
Ident. no.	1600901
Rated switching distance	7 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3…15 %
Ambient temperature	-25…+70 °C
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 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_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
Switching frequency	0.5 kHz
Design	Rectangular, Q08
Dimensions	32 x 20 x 8 mm

Features

- Rectangular, height 8 mm
- Active face on top
- Metall, zinc die casting
- Connector with snap lock
- Large sensing range
- DC 4-wire, 10…30 VDC
- Changeover contact, PNP output
- Cable with male end M12 x 1

Wiring diagram





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.

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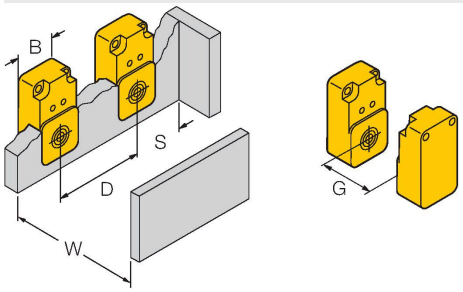
Technical data

Housing material	Metal, GD-Zn
Active area material	Plastic, PA12-GF30, yellow
Material coupling nut	metal, CuZn, nickel-plated
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m
Core cross-section	4 x 0.14 mm^2
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
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description



Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	20 mm

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