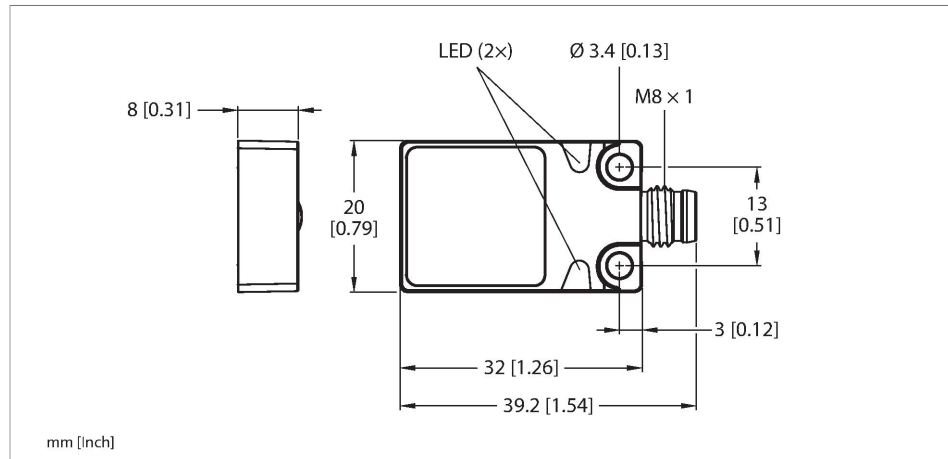


BI7-Q08-VN6X2-V1141

Inductive Sensor – With Increased Switching Distance

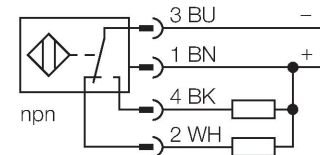


Technical data

Type	BI7-Q08-VN6X2-V1141
ID	1600922
General data	
Rated switching distance	7 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
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 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_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, NPN
Switching frequency	0.5 kHz
Mechanical data	
Design	Rectangular, Q08

Features

- Rectangular, height 8 mm
- Active face on top
- Metal, Zamak, nickel-plated
- Large sensing range
- DC 4-wire, 10...30 VDC
- Complementary contact, NPN output
- Male connector M8 × 1/Ø 8 mm



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.

Technical data

Dimensions	32 x 20 x 8 mm
Housing material	Metal, Zamak, Nickel Plated
Active area material	Plastic, PP, yellow
Electrical connection	Connector, M8 × 1/Ø 8 mm
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
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 40 mm
	Distance W 24 mm
	Distance S 1 × B
	Distance G 48 mm
	Width active area B 20 mm

Wiring accessories

Dimension drawing	Type	ID	
	PKG4S-2/TEL	6627370	Connection cable, Ø 8-mm female connector, snap-on, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval