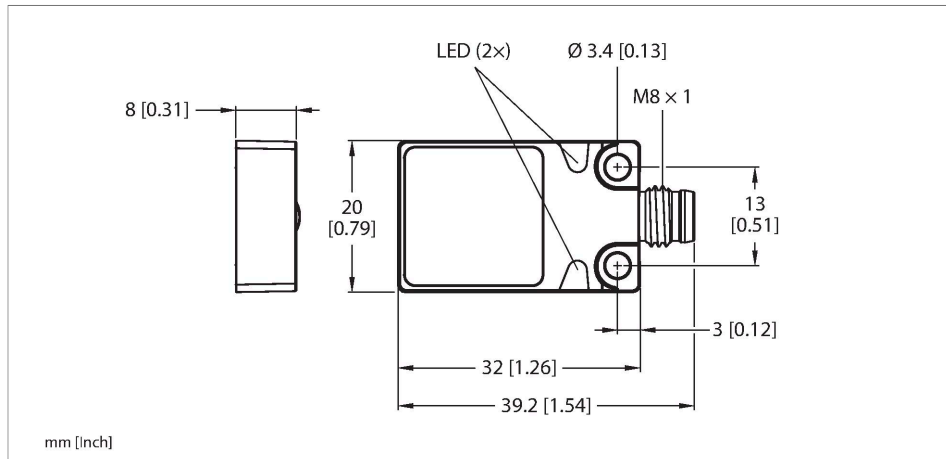


# BI7-Q08-VP6X2-V1141

## Inductive Sensor – With Increased Switching Distance



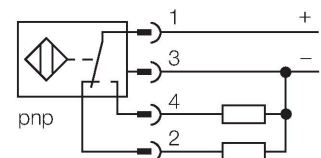
### Technical data

Type	BI7-Q08-VP6X2-V1141
ID no.	1600902
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
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10$ % $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ 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
- Metal, Zamak, nickel-plated
- Large sensing range
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- Male connector M8 x 1/Ø 8 mm

### Wiring diagram



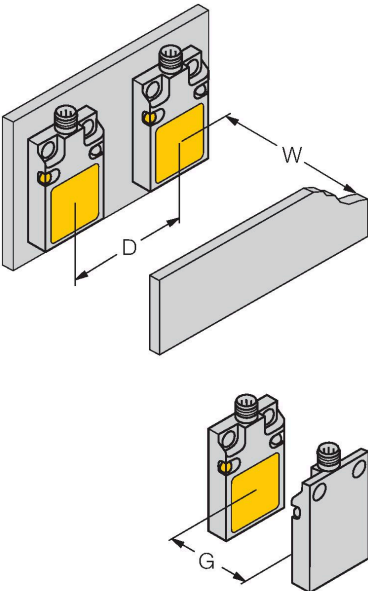
### Functional principle

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.

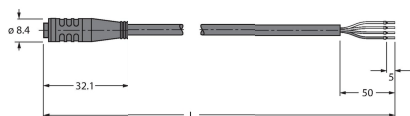
## Technical data

Housing material	Metal, Zamak, Nickel-plated
Active area material	Plastic, PP, yellow
Electrical connection	Connector, M8 × 1/Ø 8 mm
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		
 <p>The diagrams illustrate the mounting dimensions for the sensor. The top diagram shows two sensors mounted on a panel with dimensions D (distance between sensor centers), W (width of the sensor), and G (distance from the panel edge to the sensor center). The bottom diagram shows a single sensor with dimension G (distance from the panel edge to the sensor center) and B (width of the active area).</p>	Distance D	40 mm
	Distance W	24 mm
	Distance G	48 mm
	Width active area B	20 mm

## Wiring accessories

Dimension drawing	Type	ID no.	
	PKG4S-2/TEL	6627370	Connection cable, female Ø M8, straight, 4-pin, snap-on type, cable length: 2 m, jacket material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>