

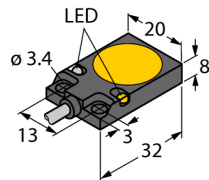
Inductive sensor

With increased switching distance

BI7-Q08-VN6X2

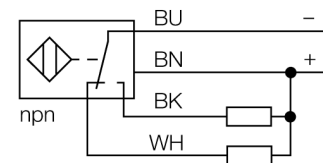
TURCK
works

Industrial
Automation



- Rectangular, height 8 mm
- Active face on top
- Metall, zinc die casting
- Large sensing range
- DC 4-wire, 10...30 VDC
- Changeover contact, NPN output
- Cable connection

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.

Type code	BI7-Q08-VN6X2
Ident-No.	1600920
Ident-No (TUSA)	S1600920
Rated switching distance Sn	7 mm
Mounting conditions	flush
Assured switching distance	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10... 30VDC
Residual ripple	$\leq 10\% U_{in}$
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_0	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, complementary, NPN
Switching frequency	0.5 kHz
Construction	Rectangular, Q08
Dimensions	32 x 20 x 8 mm
Housing material	metal, GD-Zn
Material active area	plastic, PA, yellow
Connection	cable
Cable quality	4 mm, LiFY-11Y, PUR, 2m
Cable cross section	4 x 0.25 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
IP Rating	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow

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Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn

Width of the active face B	20 mm
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