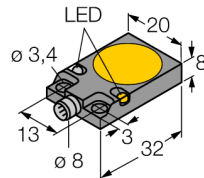


Inductive sensor

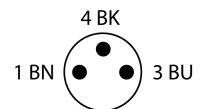
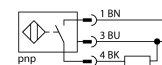
With increased switching distance

BI7-Q08-AP6X2-V1131



- Rectangular, height 8 mm
- Active face on top
- Metal, GD-Zn
- Connector with snap-lock
- Large sensing range
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Flange connector, 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.

Type designation	BI7-Q08-AP6X2-V1131
Ident-No.	1601602
Rated switching distance Sn	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	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test 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	3-wire, NO contact, PNP
Switching frequency	0.5 kHz
Design	Rectangular, Q08
Dimensions	32 x 20 x 8 mm
Housing material	Metal, GD-Zn
Active area material	Plastic, PA12-GF30, yellow
Electrical connection	Connector, Ø 8 mm
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

Inductive sensor With increased switching distance BI7-Q08-AP6X2-V1131

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

