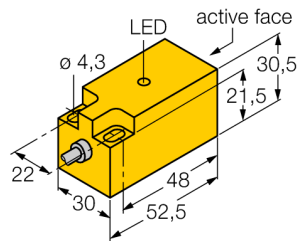


Inductive sensor

BI10-Q30-AP6X/S90 5M

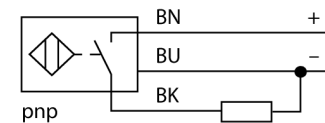
TURCK

Industrial
Automation



- Rectangular, height 31 mm
- Active face in front
- Plastic, PBT-GF30-V0
- DC 3-wire, 10...30 VDC
- NO contact, PNP 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	BI10-Q30-AP6X/S90 5M
Ident no.	1608622
Rated switching distance Sn	10 mm
Mounting conditions	flush
Assured switching distance	$\leq (0,81 \times S_n) \text{ mm}$
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 _{ss}
DC rated operational current	$\leq 200 \text{ mA}$
No-load current I ₀	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Rated insulation voltage	$\leq 0.5 \text{ kV}$
Short-circuit protection	yes/ cyclic
Voltage drop at I ₀	$\leq 1.8 \text{ V}$
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	2 kHz
Construction	rectangular, Q30
Dimensions	53 x 30 x 30.5 mm
Housing material	plastic, PBT
Connection	cable
Cable quality	5.2 mm, LiYY-11Y, PUR, 2m
Cable cross section	3 x 0.34 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
Switching state	LED yellow

Inductive sensor BI10-Q30-AP6X/S90 5M

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Distance D	$2 \times B$
Distance W	$3 \times S_n$
Distance S	$1 \times B$
Distance G	$6 \times S_n$

Width of the active face B	30 mm
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