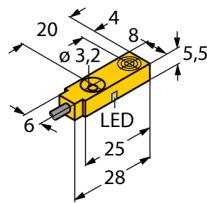
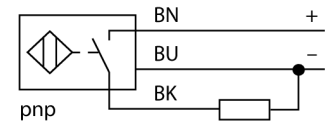


Inductive sensor Resistant to magnetic fields BI2-Q5.5-AP6X/S34



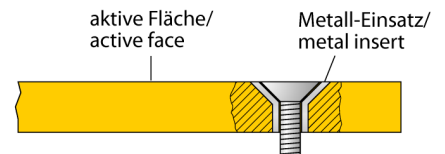
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring Diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Magnetic field sensors incorporate a special ferrite core making them immune to magnetic AC and DC fields. Hence, they can be applied in welding systems.

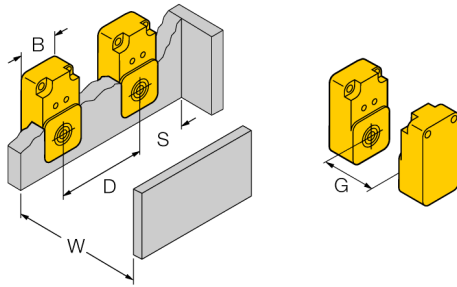


Type designation	BI2-Q5.5-AP6X/S34
Ident-No.	1613001
Special version	S34 = Weld-field immune proximity sensors
Rated switching distance Sn	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0,81 \times S_n) \text{ mm}$
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
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	$\leq 10\% U_{s0}$
DC rated operational current	$\leq 150 \text{ mA}$
No-load current I_0	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Isolation test 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	1 kHz
Design	Rectangular, Q5,5
Dimensions	28 x 8 x 5.5 mm
Housing material	Plastic, PP-GF20
Tightening torque fixing screw	0.5 Nm
Electrical connection	Cables
Cable quality	3mm, Gray, LIF2X11XFHF, TPU, 2 Flame retardant acc. to VDE 0472, part 804B
Cable cross section	3 x 0.14 mm ²
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
Packaging unit	1
Switching state	LED, Yellow

Inductive sensor
Resistant to magnetic fields
BI2-Q5.5-AP6X/S34

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

Width active area B	8 mm
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Inductive sensor
Resistant to magnetic fields
BI2-Q5.5-AP6X/S34

Accessories

Type code	Ident-No.	Description	
MW-Q4.7/Q5.5	6945013	Mounting bracket for rectangular Q4.7 or Q5.5; material VA 1.4401	