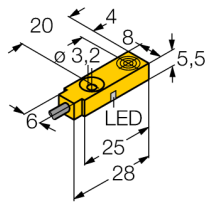


# Inductive sensor BI2-Q5,5-RP6X

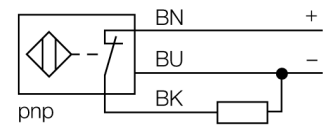
**TURCK**

Industrial  
Automation



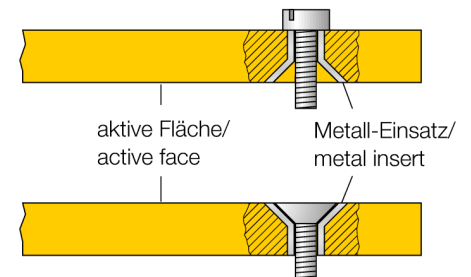
- Rectangular, height 5.5 mm
- Active face on top
- Plastic, PP
- DC 3-wire, 10...30 VDC
- NC contact, PNP output
- Cable connection

### 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.



<b>Type</b>	BI2-Q5,5-RP6X
Ident-No.	1613002
<b>Rated operating distance Sn</b>	2 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	$\leq 2\%$
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 150$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Rated insulation voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ cyclic
Voltage drop at $I_N$	$\leq 1.8$ V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NC contact, PNP
Switching frequency	2 kHz
<b>Design</b>	rectangular, Q5.5
Dimensions	28 x 8 x 5.5 mm
Housing material	Plastic, PP-GF20
Tightening torque fixing screw	0.5 Nm
Connection	cable
Cable quality	3 mm, LifYY-11Y, PUR, 2 m
Cable cross section	3 x 0.14 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	LED yellow

**Inductive sensor  
BI2-Q5,5-RP6X**

Mounting instructions	minimum distances
Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn

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<b>Width of the active face B</b>	8 mm
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