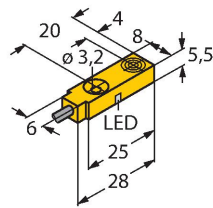


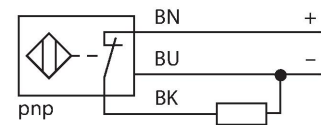
NI3.5-Q5.5-RP6X Inductive Sensor



Features

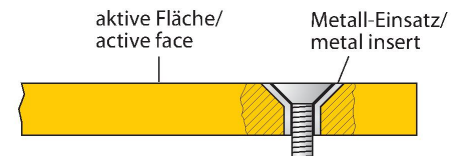
- Rectangular, height 5.5 mm
- Active face on top
- Plastic, PP
- DC 3-wire, 10...30 VDC
- NC contact, PNP output
- Cable connection

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, 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.



Technical data

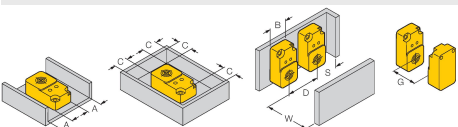
Type	NI3.5-Q5.5-RP6X
ID	4613603
General data	
Rated switching distance	3.5 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 150 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NC contact, PNP
Switching frequency	2 kHz

Technical data

Mechanical data	
Design	Rectangular, Q5,5
Dimensions	28 x 8 x 5.5 mm
Housing material	Plastic, PP-GF20
Active area material	PP-GF20
Tightening torque fixing screw	0.5 Nm
Electrical connection	Cable
Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 2 m
	Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Core cross-section	3 x 0.14 mm ²
Environmental conditions	
Ambient temperature	-25...+70 °C
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
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The diagram illustrates the mounting of the TURCK Q5.5-RP6X sensor. It consists of four parts: 1. A top view of the sensor mounted in a U-shaped slot, with dimensions A (slot width), B (sensor width), C (slot depth), and D (sensor depth) labeled. 2. A side view of the sensor mounted in a slot, with dimensions S (slot height) and G (sensor height) labeled. 3. A perspective view of the sensor mounted in a slot, with dimensions W (slot width) and B (sensor width) labeled. 4. A perspective view of the sensor and its mounting plate, with dimensions G (sensor height) and B (sensor width) labeled.

Distance D	3 x B
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Distance W	3 x Sn
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Distance S	1.5 x B
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Distance G	6 x Sn
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Distance N	2 x Sn
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Distance A	1 x Sn
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Distance C	2 x Sn
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Width active area B	8 mm
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N/3.5-Q5.5-RP6X| 02/21/2025 13-48 | technical changes reserved

Accessories

MW-Q4.7/Q5.5

6945013

Mounting bracket for rectangular Q4.7
or Q5.5; material VA 1.4401

