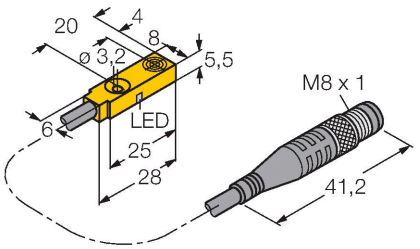
BI2-Q5.5-AP6X-0.3-PSG3M
Inductive Sensor





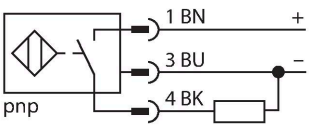
Technical data

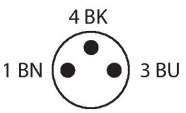
Type	BI2-Q5.5-AP6X-0.3-PSG3M
ID	1613007
General data	
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
Hysteresis	3…15 %
Electrical data	
Operating voltage U_B	10…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_e	≤ 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_e	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	2 kHz

Features

- Rectangular, height 5.5 mm
- Active face on top
- Plastic, PP
- DC 3-wire, 10…30 VDC
- NO contact, PNP output
- M8 x 1 male connector

Wiring diagram



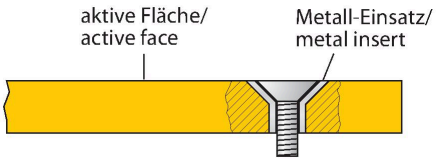


Functional principle

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.

BI2-Q5.5-AP6X-0.3-PSG3M| 05/28/2025 09-48 | technical changes reserved

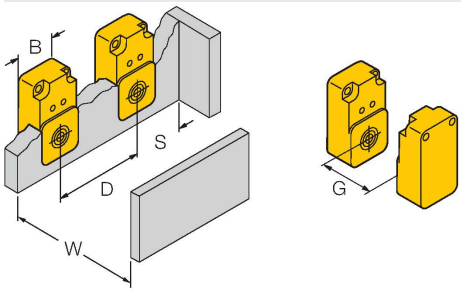
Technical data



Mechanical data	
Design	Rectangular, Q5,5
Dimensions	28 x 8 x 5.5 mm
Housing material	Plastic, PP-GF20
Active area material	PP-GF20
Material coupling nut	metal, CuZn, nickel-plated
Tightening torque fixing screw	0.5 Nm
Electrical connection	Connector, M8 × 1
Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m
	Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Core cross-section	3 x 0.14 mm²
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



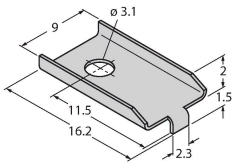
Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	8 mm

BI2-Q5.5-AP6X-0.3-PSG3M| 05/28/2025 09-48 | technical changes reserved

Accessories

MW-Q4.7/Q5.5	6945013

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



Wiring accessories

Dimension drawing	Type	ID	
	PKG3M-2/TEL	6625058	Connection cable, M8 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval

