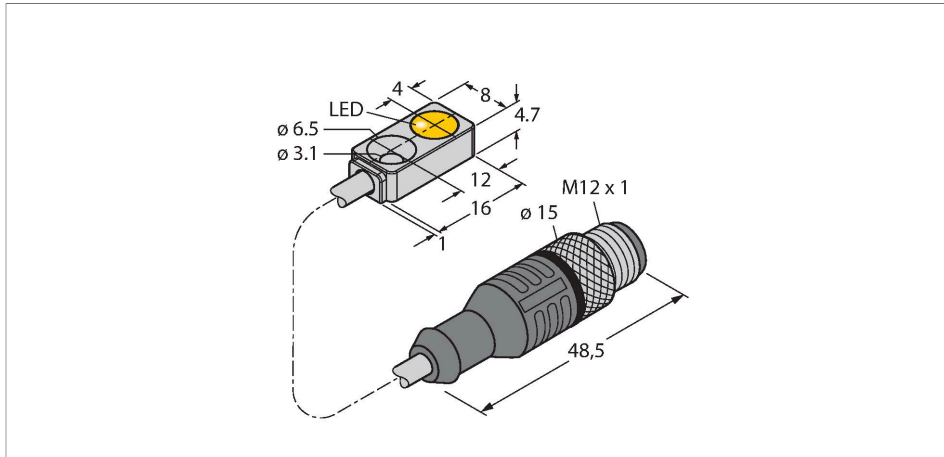
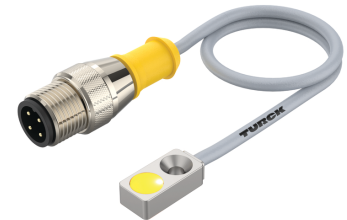


BI2-Q4.7-AN6X-0.2-RS4T Inductive Sensor



Technical data

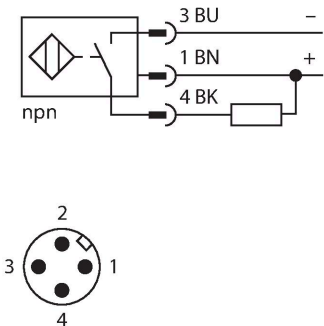
Type	BI2-Q4.7-AN6X-0.2-RS4T
ID	1614096
General data	
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{rs}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 100 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, NO contact, NPN
Switching frequency	1 kHz



Features

- Rectangular, height 4.7 mm
- Active face on top
- Metal housing, GD-ZnAl
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Pigtail with M12 × 1 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.

Technical data

Mechanical data	
Design	Rectangular, Q4,7
Dimensions	16 x 8 x 4.7 mm
Housing material	Metal, GD-ZnAl
Active area material	Plastic, PA12
Material coupling nut	metal, CuZn, nickel-plated
Tightening torque fixing screw	0.5 Nm
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 3 mm, Gray, LifY-11Y, PUR, 0.2 m
Core cross-section	3 x 0.14 mm ²
Environmental conditions	
Ambient temperature	0...+85 °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 image contains two technical diagrams illustrating the mounting of the Q4,7 sensor. The main diagram shows two yellow sensor units mounted on a grey rail. Dimension lines indicate the following measurements: B is the width of the sensor; D is the center-to-center distance between the sensors; S is the distance from the sensor face to the mounting hole; and W is the total width of the mounting rail. An inset diagram shows a side view of the sensor, with G representing the distance from the sensor face to the mounting hole.

Distance D	2 × B
Distance W	3 x Sn
Distance S	1.5 × B
Distance G	6 x Sn
Width active area B	8 mm

BI2-Q4,7-AN6X-0.2-RS4T| 02/21/2025 14-41 | technical changes reserved

Accessories

MW-Q4.7/Q5.5

6945013

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

