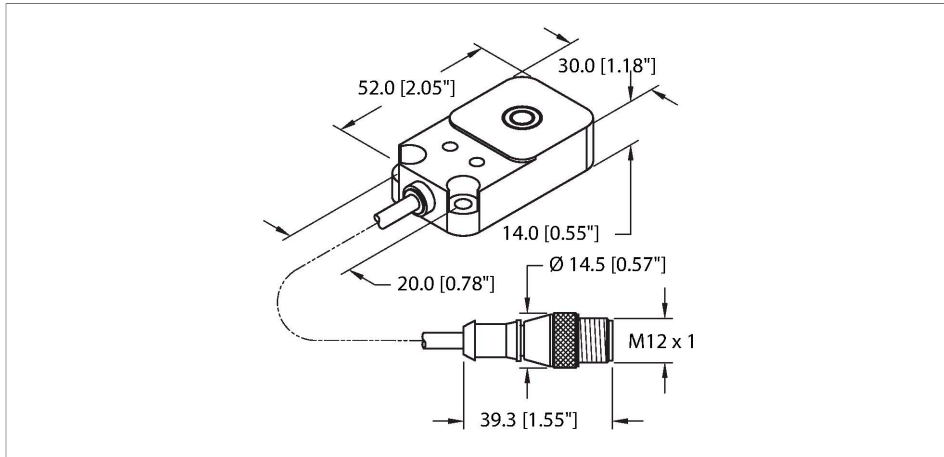


BI10U-Q14-AN6X2-0.2-RS4T Inductive Sensor



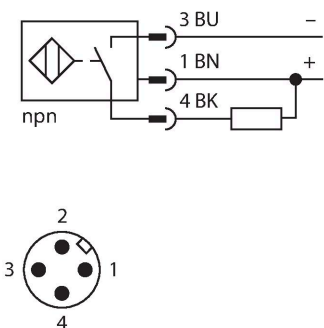
Technical data

Type	BI10U-Q14-AN6X2-0.2-RS4T
ID	1608791
General data	
Rated switching distance	10 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
	$\leq \pm 15 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 200 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
DC field stability	300 mT
AC field stability	300 mT _{SS}
Insulation class	□
Switching frequency	0.25 kHz

Features

- Rectangular, height 14 mm
- Active face on top
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Pigtail with M12 × 1 connector

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

Mechanical data	
Design	Rectangular, Q14
Dimensions	52 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Material coupling nut	metal, CuZn, nickel-plated
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 5.2 mm, LifYY-11Y, PUR, 0.2 m
Core cross-section	3 x 0.34 mm ²
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The image contains two technical diagrams. The main diagram on the left shows two yellow rectangular sensors mounted on a grey rail. Dimension lines indicate: 'B' for the width of one sensor, 'D' for the center-to-center distance between sensors, 'S' for the distance from the sensor face to the mounting hole, and 'W' for the total width of the mounting area. An inset diagram on the right shows a single sensor and its footprint on a surface, with dimension 'G' indicating the distance between the mounting holes.

Distance D	$1.5 \times B$
Distance W	$3 \times S_n$
Distance S	$1 \times B$
Distance G	$6 \times S_n$
Width active area B	30 mm

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Accessories

MW-Q14/Q20

6945006

Mounting bracket for rectangular Q14
or Q20; material VA 1.4301

