

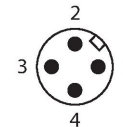
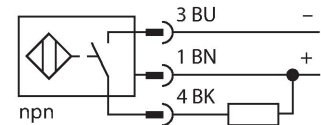
BI1-Q6.5-AN6-0.2-RS4T

Inductive Sensor

Features

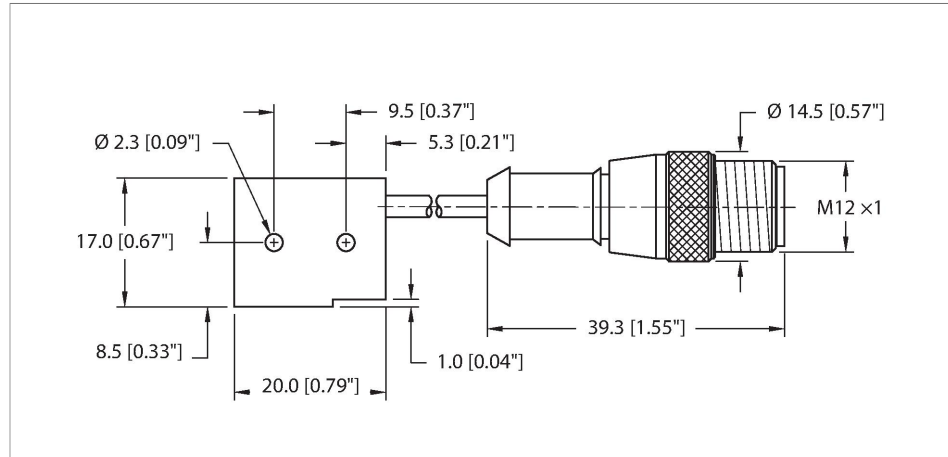
- Rectangular, height 6.5 mm
- Active face, lateral
- Plastic, PP GR-20
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Pigtail with M12 × 1 connector

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

Type	BI1-Q6.5-AN6-0.2-RS4T
ID	4613497
General data	
Rated switching distance	1 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.1; stainless steel = 0.7; Ms = 0.25
Repeat accuracy	$\leq 2 \%$ of full scale
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	≤ 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, NO contact, NPN
Switching frequency	2 kHz
Mechanical data	
Design	Rectangular, Q6,5

Technical data

Dimensions	20.2 x 17.2 x 6.5 mm
Housing material	Plastic, PP GR-20
Active area material	PP GR-20
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 2 mm, Gray, Lif9Y-11Y, PUR, 0.2 m
Core cross-section	3 x 0.08 mm ²
Litz wire	40 x0.05 mm
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

Mounting instructions

Mounting instructions/Description

Distance D	3 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	6.5 mm

Note for installation in ST37:
4-side flush mounting is not possible

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