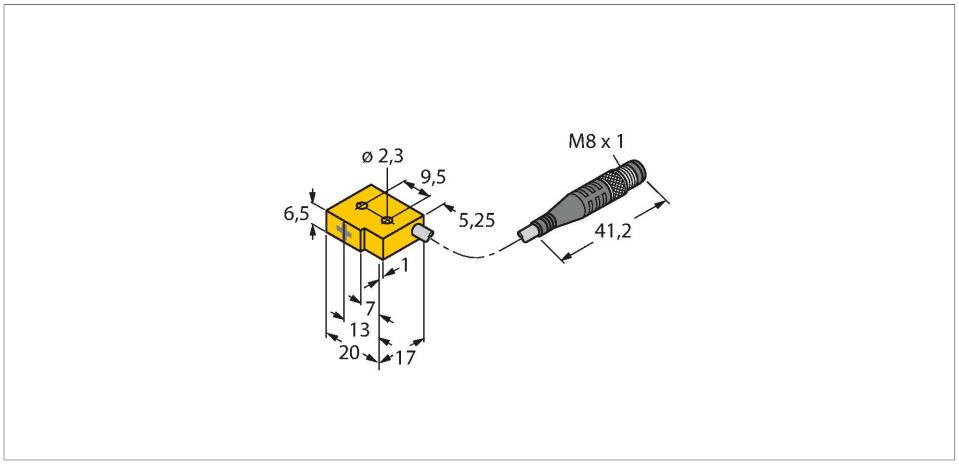
BI1-Q6.5-AP6-0.4-PSG3M/S34
Inductive sensor – Resistant to magnetic fields



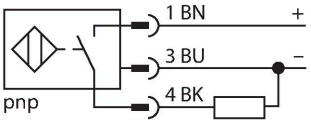
Technical data

Type	BI1-Q6.5-AP6-0.4-PSG3M/S34
Ident. no.	4613415
Special version	S34 corresponds to: Weld-field immune proximity sensors
Rated switching distance	1 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 %
Ambient temperature	-25…+70 °C
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 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 breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.03 kHz

Features

- Rectangular, height 6.5 mm
- Active face, lateral
- Kunststoff, PP GR-20
- DC 3-wire, 10…30 VDC
- NO contact, PNP output
- Pigtail with male end M8 x 1

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.

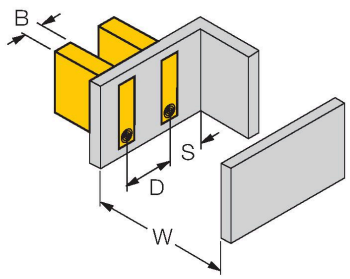
BI1-Q6.5-AP6-0.4-PSG3M/S34| 03/07/2020 09-10 | technical changes reserved

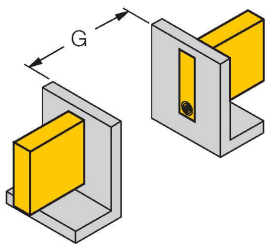
Technical data

Design	Rectangular, Q6,5
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, M8 × 1
Cable quality	Ø 2 mm, Gray, Lif9Y-11Y, PUR, 0.4 m
Core cross-section	3 x 0.08 mm^2
Litz wire	40 x0.05 mm
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	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	6.5 mm

BI1-Q6.5-AP6-0.4-PSG3M/S34| 03/07/2020 09-10 | technical changes reserved