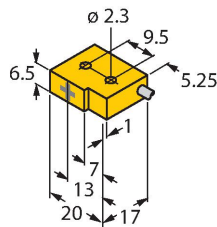


BI1-Q6.5-AP6/S34

Inductive Sensor – Resistant to Magnetic Fields



Features

- Rectangular, height 6.5 mm
- Active face, lateral
- Plastic, PP GR-20
- Resistant to magnetic fields (weld resistant), for DC and AC fields
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

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.

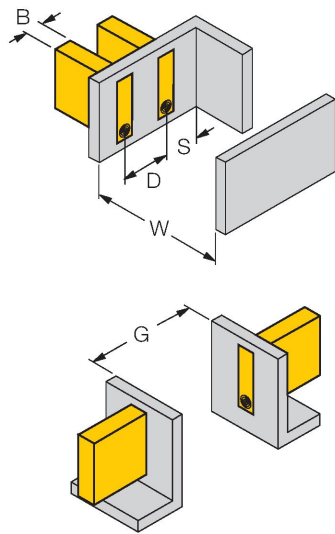
Technical data

Type	BI1-Q6.5-AP6/S34
ID	4613401
Special version	S34 Corresponds to: Resistant to magnetic fields
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	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	≤ 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, PNP
Switching frequency	0.03 kHz
Mechanical data	
Design	Rectangular, Q6,5
Dimensions	20.2 x 17.2 x 6.5 mm

Technical data

Housing material	Plastic, PP GR-20
Active area material	PP GR-20
Electrical connection	Cable
Cable quality	Ø 2 mm, Gray, Lif9Y-11Y, PUR, 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
	2 x B
	Distance W
	3 x Sn
	Distance S
	1 x B
	Distance G
	6 x Sn
	Width active area
	6.5 mm
	B
Note for installation in ST37: 4-side flush mounting is not possible	