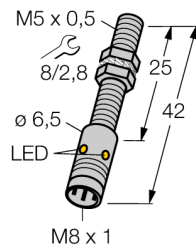


Inductive sensor BI1-EG05-RP6X-V1331

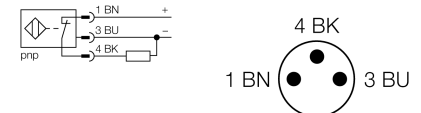
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- Threaded barrel, M5 x 0,5
- Stainless steel, 1.4301
- DC 3-wire, 10...30 VDC
- NC contact, PNP output
- Connector, M8 x 1

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Type code	BI1-EG05-RP6X-V1331
Ident no.	4609752
Rated operating distance Sn	1 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2\%$ of full scale
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30VDC
Residual ripple	$\leq 10\%$ U_{ss}
DC rated operational current	≤ 100 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_0	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NC contact, PNP
Switching frequency	3 kHz
Design	threaded barrel, M5 x 0.5
Dimensions	42.5 mm
Housing material	Metal, V4A (1.4404)
Material active face	Plastic, PBT
Max. tightening torque housing nut	5 Nm
Connection	male, M8 x 1
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	• yellow

Inductive sensor
BI1-EG05-RP6X-V1331

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Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn

Diameter of the active area B	Ø 5 mm
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