

Inductive sensor

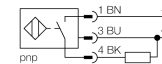
BI1-EG05-AP6X-V1331

TURCK

Industrial
Automation

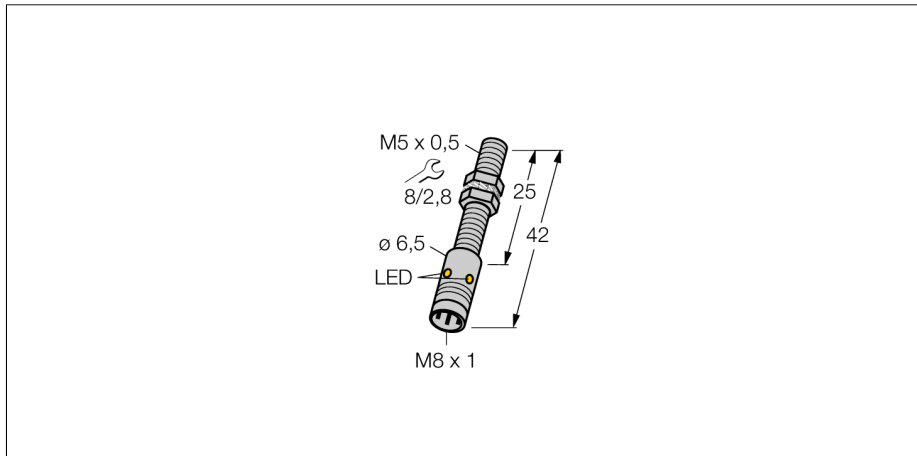
- Threaded barrel, M5 x 0,5
- Stainless steel, 1.4301
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 connector

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	BI1-EG05-AP6X-V1331
Ident-No.	4608640
Rated operating distance Sn	1 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	≤ 2 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30VDC
Residual ripple	≤ 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 _e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO 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-GF20
Tightening torque of housing nut	5 Nm
Connection	connector, M8 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

Inductive sensor
BI1-EG05-AP6X-V1331

Mounting instructions	minimum distances
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
--------------------------------------	--------

