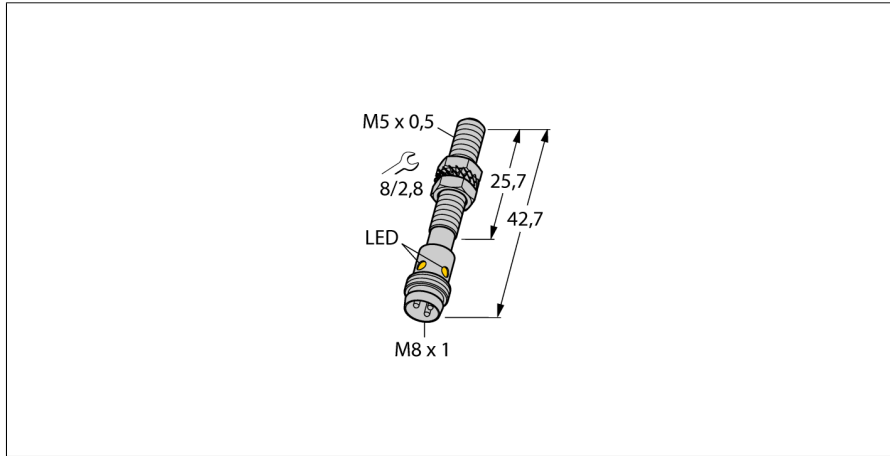


Inductive sensor BI1-EG05-AP6X-V1331

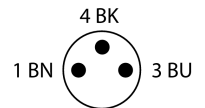
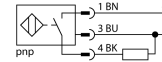
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- Threaded barrel, M5 x 0.5
- Stainless steel, 1.4427 SO
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

Wiring Diagram



Type designation	BI1-EG05-AP6X-V1331
Ident-No.	4608640
Ident-No (TUSA)	S4608640
Rated switching distance Sn	1 mm
Mounting conditions	flush
Assured switching distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10... 30VDC
Residual ripple	≤ 10 % U _{in}
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, NO contact, PNP
Switching frequency	3 kHz
Construction	Threaded barrel, M5 x 0.5
Dimensions	42.7 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12
Max. tightening torque housing nut	5 Nm
Electrical connection	Flange connector, 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	LED yellow

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.

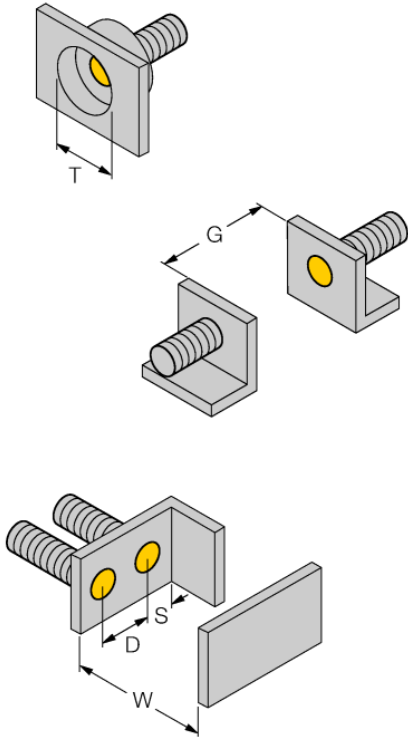
Inductive sensor BI1-EG05-AP6X-V1331

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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 \varnothing 5 mm



Inductive sensor
BI1-EG05-AP6X-V1331



Wiring accessories

Type code	Ident-No.	Description	
PKG3M-2/TEL	6625385	Connection cable, female M8, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	A technical drawing of a 3-pin female M8 connection cable. The drawing shows a stainless steel coupling nut on the left with a diameter of 9.6 mm and a thread of M8 x 1. The cable length is labeled as 'L'. The distance from the coupling nut to the end of the cable is 34 mm. The distance from the end of the cable to the center of the three pins is 50 mm. The pins are spaced 5 mm apart. The drawing is a side view of the cable.