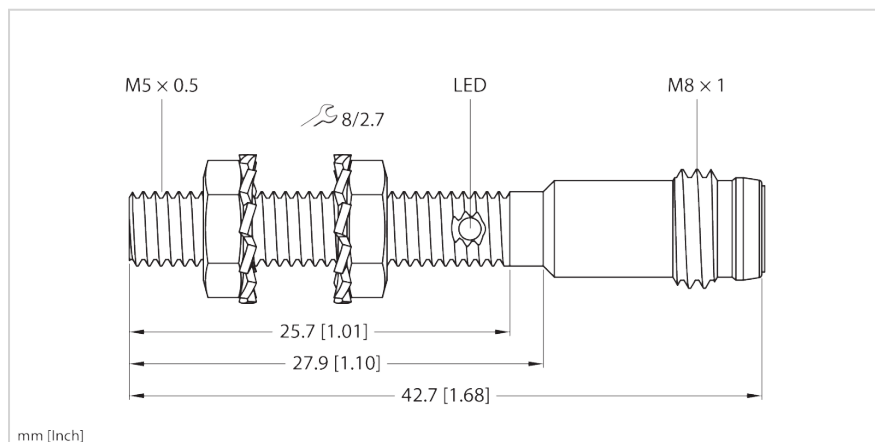


BI1-EG05-AN6X-V1331

Inductive Sensor



Type designation	BI1-EG05-AN6X-V1331
Ident-No.	4608740

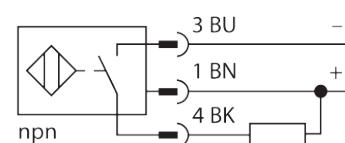
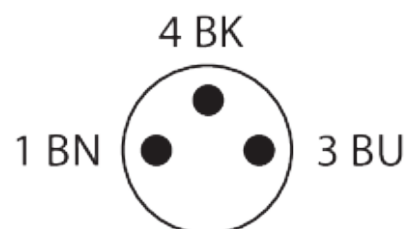
Technical data

General data	
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Detection area/measuring range	
Rated switching distance	1 mm
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Power supply	
Operating voltage U_B	10...30 VDC
Voltage drop at I_e	$\leq 1,8$ V
Electrical data	
No-load current	15 mA
Output function	3-wire, NO contact, NPN
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes/Complete
DC rated operational current	≤ 100 mA
Isolation test voltage	$\leq 0,5$ kV
Residual current	$\leq 0,1$ mA
Residual ripple	$\leq 10\%$ U_{SS}
Switching frequency	3 kHz
Accuracy/deviation	

Features

- Threaded barrel, M5 $\times$ 0.5
- Stainless steel, 1.4305 (AISI303)
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- M8 $\times$ 1 connector

Wiring Diagram



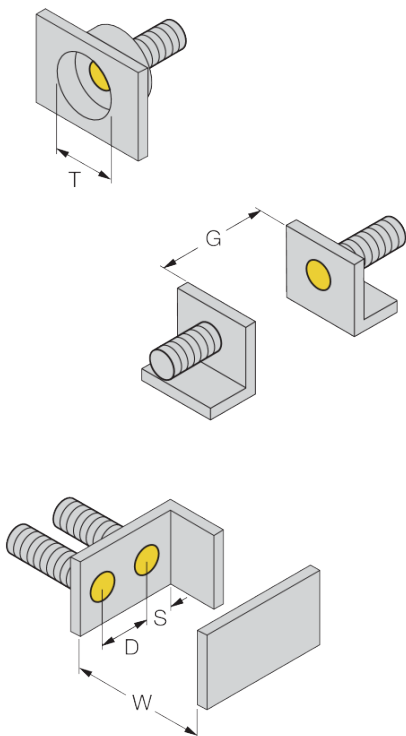
Technical data

Hysteresis	10 % v. E.
Temperature drift	10 %
Repeat accuracy	≤ 2 % v. E.
Mechanical data	
Design	Threaded barrel, M5 x 0.5
Construction type designation	EG05
	ø 5 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Plastic, PA6.6
Max. tightening torque of housing nut	2,5 Nm
Electrical connection	Connector, M8 x 1
Number of pins	3
Pressure resistant	no
Thread length	27,9 mm
Thread size	M5 × 0.5
Mounting conditions	Flush
Ambient conditions	
Ambient temperature	-25...+70 °C
Pollution degree	3
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP67
Tests/approvals	
MTTF	2283 Years acc. to SN 29500 (Ed. 99) 40 °C
Displays/controls	
Switching state	LED, Yellow
Other properties	
RoHs compatibility	yes

Functional principle

Inductive sensors are used for the contactless and wear-free detection of metallic objects. 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.

Assembly instructions



Distance D: 3 × B
Distance W: 3 × Sn
Distance T: 3 × B
Distance S: 1.5 × B
Distance G: 6 × Sn
Diameter active area B: 5 mm

Connection accessories

PKG3M-2/TEL

6625385

Connection cable, M8 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, black; cULus approval

