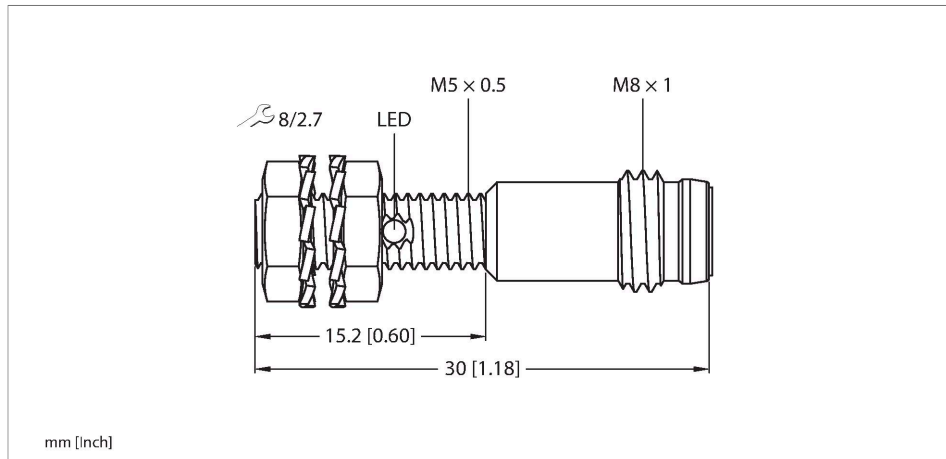


# BI1-EG05K-AN6X-V1331

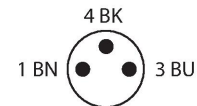
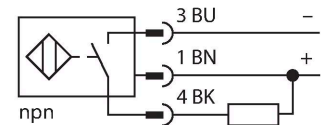
## Inductive Sensor



### Features

- Threaded barrel, M5 × 0.5
- Stainless steel, 1.4305 (AIS303)
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- M8 x 1 male connector

### Wiring diagram



### Technical data

Type	BI1-EG05K-AN6X-V1331
ID	4609769
<b>General data</b>	
Rated switching distance	1 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2$ % of full scale
Hysteresis	10 %
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10$ % $U_{ss}$
DC rated operational current	$\leq 100$ mA
No-load current	15 mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, NPN
Switching frequency	2 kHz
<b>Mechanical data</b>	
Design	Threaded barrel, M5 x 0.5

### 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

Dimensions	30 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 × 1
<b>Environmental conditions</b>	
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
Switching state	LED, Yellow

## Mounting instructions

### Mounting instructions/Description



Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance T	$3 \times B$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Diameter active area B	$\varnothing 5 \text{ mm}$

Wiring accessories

Dimension drawing	Type	ID	Description
	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