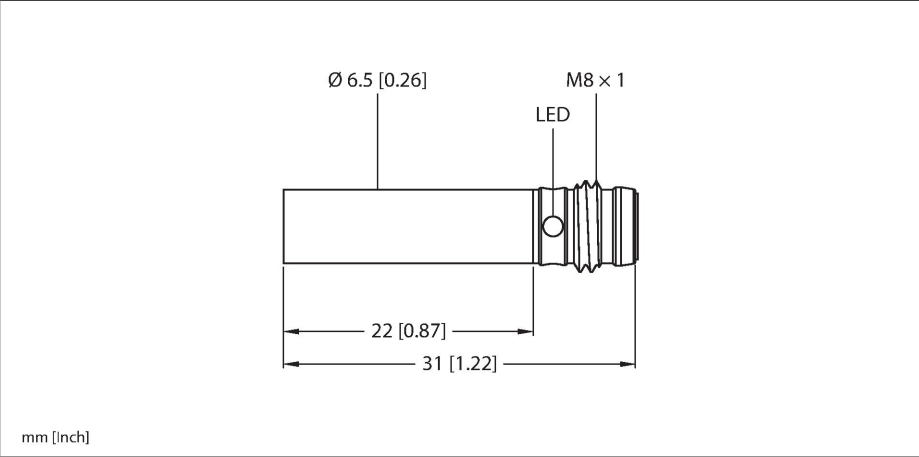


BI1.5-EH6.5K-AP6X-V1131

Inductive Sensor



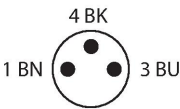
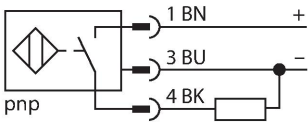
Technical data

Type	BI1.5-EH6.5K-AP6X-V1131
ID	4610740
General data	
Rated switching distance	1.5 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	20 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 150 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz
Mechanical data	
Design	Smooth barrel, 6,5 mm
Dimensions	31 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Plastic, PA6.6

Features

- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4305 (AISI 303)
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

Wiring diagram



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

Electrical connection	Connector, M8 × 1
Environmental conditions	
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

The image contains three isometric diagrams illustrating different mounting configurations for a connector. The top diagram shows a connector with two yellow circular active areas mounted on a rectangular plate. Dimensions are indicated: 'D' is the distance between the active areas, 'S' is the distance from the active areas to the edge of the plate, and 'W' is the width of the plate. The middle diagram shows a connector with one yellow circular active area mounted on a rectangular plate, with dimension 'T' indicating the thickness of the plate. The bottom diagram shows a connector with one yellow circular active area mounted on a rectangular plate, with dimension 'G' indicating the distance from the active area to the edge of the plate.

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 active area B	Ø 6.5 mm

Accessories

Dimension drawing	Type	ID	
	PKGV3M-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