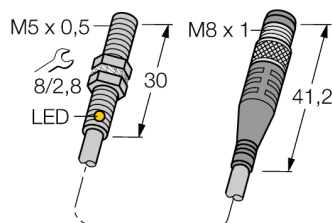


Inductive Sensor

BI1-EG05-AP6X-0.3-PSG3M



Type	BI1-EG05-AP6X-0.3-PSG3M
ID	4609759

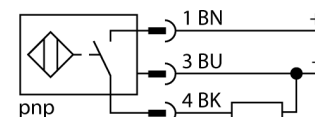
General data	
Rated switching distance S_n	1 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %

Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_{is}$
DC rated operational current	≤ 100 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I_L	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz

Mechanical data	
Design	Threaded barrel, M5 x 0.5
Dimensions	30 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12
Material coupling nut	metal, CuZn, nickel-plated
Max. tightening torque of housing nut	5 Nm
Electrical connection	Cable with connector, M8 x 1
Cable quality	Ø 3 mm, LifYY-11Y, PUR, 0.3 m
Core cross-section	3 x 0.14 mm ²

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

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.

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