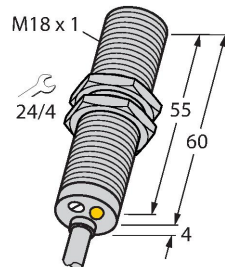


BI8-M18-LUAP6X

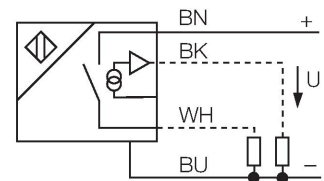
Inductive Sensor – With Analog and Switching Output



Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- 4-wire, 15...30 VDC
- NO contact, PNP output
- Analog output
- 0...10 V
- Cable connection

Wiring diagram

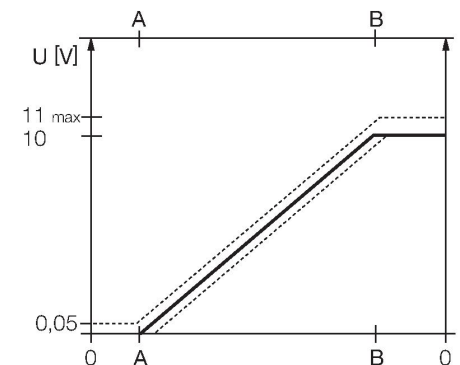


Technical data

Type	BI8-M18-LUAP6X
ID	4615010
General data	
Measuring range	1...5 mm
	switch point adjustable via potentiometer
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
Repeatability	≤ 1 % of measuring range A - B
	0.5 %, after warm-up 0.5 h
Reproducibility	≤ 40 μ m
	≤ 20 μ m, after a warm-up time of 0.5 h
Linearity deviation	≤ 5 %
Temperature drift	$\leq \pm 0.06$ %/K
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	15...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 200 mA
No-load current	≤ 8 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes
Wire break/reverse polarity protection	no/Complete
Output function	4-wire, NO contact, PNP/Analog output
Voltage output	0...10 V
Load resistance voltage output	≥ 4.7 k Ω
Measuring sequence frequency	200 Hz

Functional principle

Inductive TURCK sensors with analog output accomplish simple control tasks. They provide a current, voltage or frequency signal proportional to the target's distance. The output signal is linear to the distance of the target over the entire sensing range.



Technical data

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	54 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY, PVC, 2 m
Core cross-section	4 x 0.34 mm ²
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	751 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The image contains three technical diagrams illustrating different mounting configurations for a sensor. The top diagram shows a side view of a sensor with a dimension line labeled 'T' indicating the thickness of the mounting plate. The middle diagram shows two sensors mounted on a wall, with a dimension line labeled 'G' indicating the distance between the mounting points. The bottom diagram shows a sensor mounted on a plate, with dimension lines labeled 'D' (distance from the wall to the sensor), 'S' (distance from the sensor to the edge of the plate), and 'W' (width 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 18 mm

Accessories

BST-18B 6947214

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QM-18 6945102

Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



MW18 6945004

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-18 6901320

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

