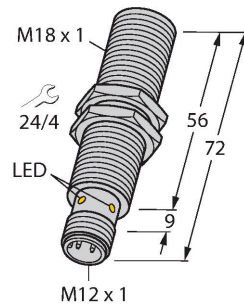


BI8U-MT18E-AP6X-H1141

Inductive Sensor – With Extended Switching Distance



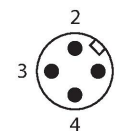
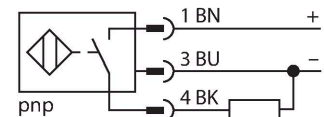
Technical data

Type	BI8U-MT18E-AP6X-H1141
ID	1644752
General data	
Rated switching distance	8 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 200 mA
No-load current	≤ 25 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
DC field stability	300 mT
AC field stability	300 mT _{SS}
Insulation class	□
Switching frequency	1.5 kHz

Features

- Threaded barrel, M18 x 1
- Long version
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- Recessed mountable
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching

Technical data

distances, maximum flexibility and operational reliability as well as efficient standardization.

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	72 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, LCP, PTFE-coated
Max. tightening torque of housing nut	15 Nm
Electrical connection	Connector, M12 x 1
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The image contains three separate diagrams illustrating different mounting methods for a sensor. The top diagram shows a sensor being mounted flush against a flat surface, with a dimension line labeled 'T' indicating the distance from the surface to the center of the sensor. The middle diagram shows a sensor being mounted to a panel, with a dimension line labeled 'G' indicating the distance from the panel to the center of the sensor. The bottom diagram shows a sensor being mounted into a recessed area of a panel, with dimension lines labeled 'D' (distance from the panel to the center of the sensor), 'S' (distance from the panel to the edge of the sensor), and 'W' (width of the recessed area).

A cross-sectional diagram of a threaded barrel sensor. It shows a threaded barrel passing through two panels. The barrel has a yellow-colored tip. The internal components of the sensor are visible within the barrel.

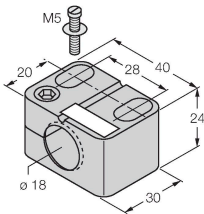
Distance D	36 mm
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 18 mm

All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

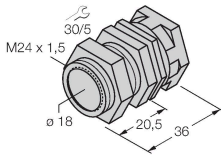
Accessories

BST-18B 6947214



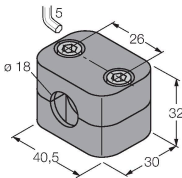
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

QMT-18 6945104



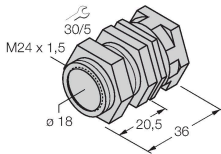
Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BSS-18 6901320



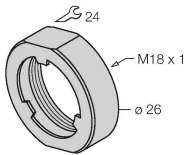
Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

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.

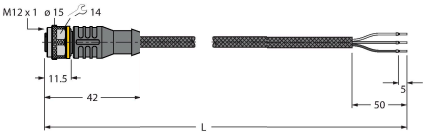
PN-M18 6905310



Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)

Wiring accessories

Dimension drawing	Type	ID	
	RKC4T-2/TXL1001	6630249	



Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, protective jacket material: aramid fibers, yellow; temperature peak: 200 °C