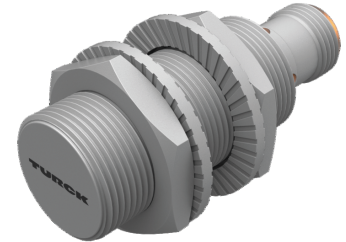
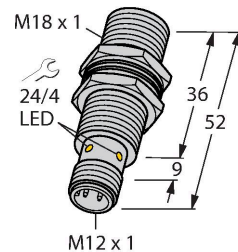


# BI8U-MT18-AN6X-H1141

## Inductive Sensor – With Extended Switching Distance



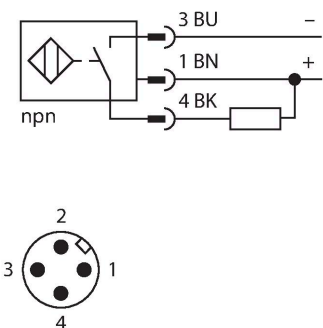
### Technical data

Type	BI8U-MT18-AN6X-H1141
ID	1644739
<b>General data</b>	
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 %
<b>Electrical data</b>	
Operating voltage $U_B$	10...30 VDC
Ripple $U_{ss}$	$\leq 10 \%$ $U_{Bmax}$
DC rated operating current $I_o$	$\leq 200$ mA
No-load current	$\leq 25$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, NPN
DC field stability	300 mT
AC field stability	300 mT <sub>SS</sub>
Insulation class	□
Switching frequency	1.5 kHz

### Features

- Threaded barrel, M18 x 1
- 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, NPN 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 distances, maximum flexibility and operational reliability as well as efficient standardization.

## Technical data

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	52 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 configurations for a threaded barrel sensor. The top diagram shows a side view of a sensor mounted on a flat panel, with a dimension line labeled 'T' indicating the distance from the panel to the sensor's face. The middle diagram shows two views of a sensor mounted on a panel: a side view and a front view, with a dimension line labeled 'G' indicating the distance from the panel to the sensor's face. The bottom diagram shows a side view of a sensor mounted on a panel, with dimension lines labeled 'D', 'S', and 'W' indicating the distance from the panel to the sensor's face, the distance from the panel to the sensor's face, and the distance from the panel to the sensor's face, respectively.

A side view of a threaded barrel sensor, showing the internal thread and the mounting flange.

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

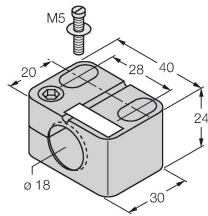
All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

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

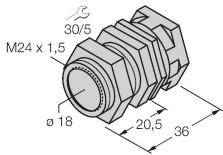
BST-18B 6947214

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



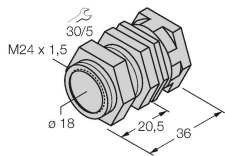
QMT-18 6945104

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.



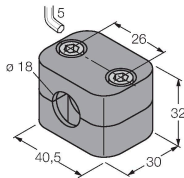
QM-18 6945102

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.



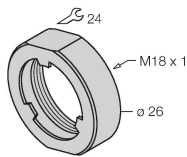
BSS-18 6901320

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



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

