

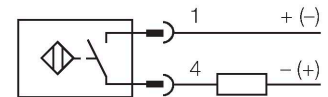
# BI5U-M18M-AD4X-H1144

## Inductive Sensor

### Features

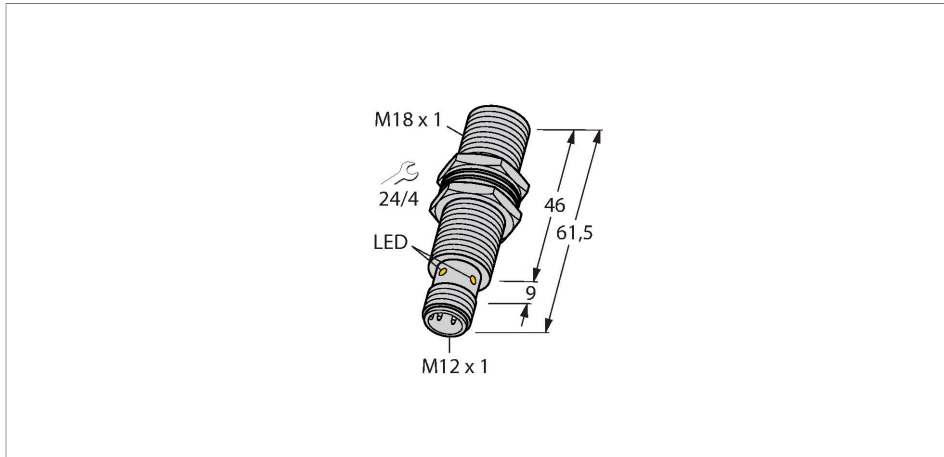
- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Resistant to magnetic fields
- DC 2-wire, 10...65 VDC
- NO contact
- M12 x 1 male connector

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*<sup>®</sup> sensors have distinct advantages compared to conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.



### Technical data

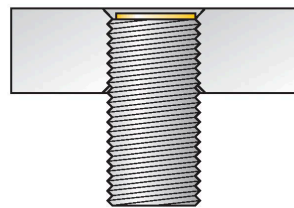
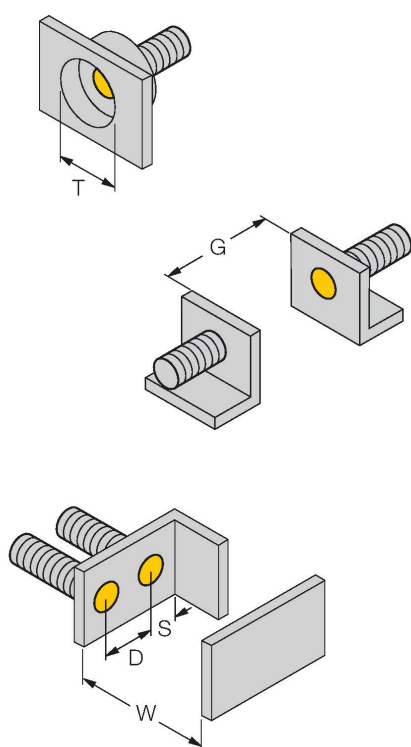
Type	BI5U-M18M-AD4X-H1144
Ident. no.	4405066
Rated switching distance	5 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$ $\leq \pm 15\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Hysteresis	3...20 %
Ambient temperature	-25...+70 °C
Operating voltage	10...65 VDC
Residual ripple	$\leq 10\% U_s$
DC rated operational current	$\leq 100$ mA
Residual current	$\leq 0.8$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_e$	$\leq 5$ V
Wire breakage/Reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	$\geq 3$ mA
Switching frequency	0.01 kHz
Design	Threaded barrel, M18 x 1
Dimensions	61.5 mm
Housing material	Metal, CuZn, Chrome-plated

## Technical data

Active area material	Plastic, LCP
Connector housing	plastic, PP
Max. tightening torque housing nut	25 Nm
Electrical connection	Connector, M12 × 1
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



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*<sup>®</sup>+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

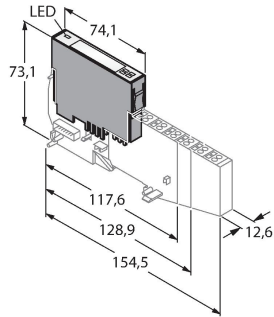
The use of isolating switching amplifiers is possible, because *uprox*<sup>®</sup>+ 2-wire DC sensors operate with 8 VDC low voltage (limited load current 50 mA).

The sensors can be operated with the Turck remote I/O fieldbus system BL20. If the sensors are combined with a BL20-4DI-NAMUR slice, events of wire-break or short-circuit can be detected immediately.

## Accessories

**BL20-4DI-NAMUR**

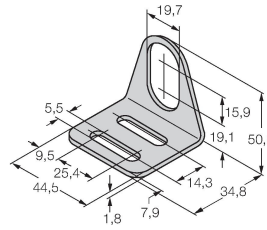
**6827212**



4 digital inputs acc. to EN 60947-5-6  
For NAMUR sensors, de-energized contacts or uprox®+ 2-wire DC sensors.

**MW18**

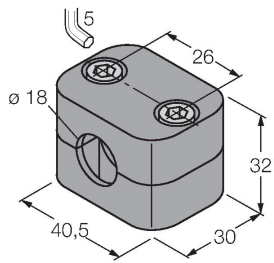
**6945004**



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