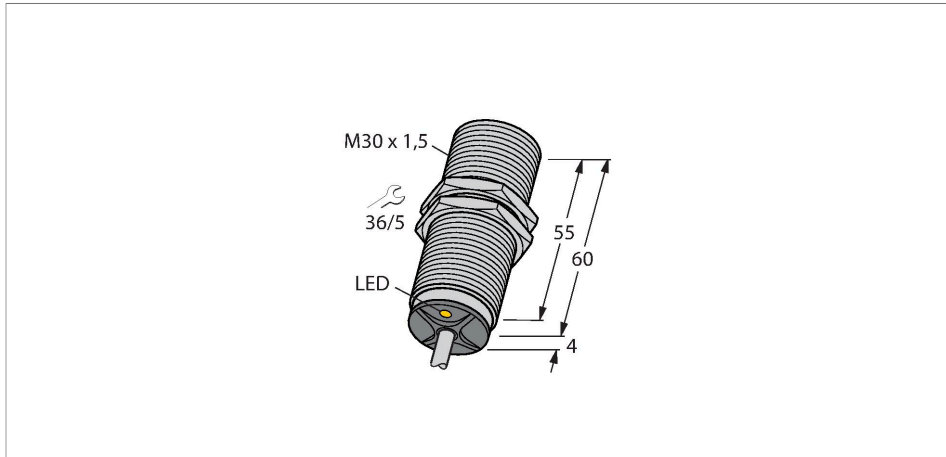


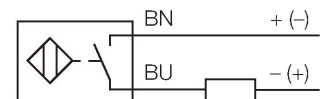
# BI10U-M30-AD4X Inductive Sensor



## Features

- M30 × 1.5 threaded tube
- Chrome-plated brass
- Factor 1 for all metals
- Resistant to magnetic fields
- DC 2-wire, 10...65 VDC
- NO contact
- Cable connection

## Wiring diagram



## Technical data

Type	BI10U-M30-AD4X
Ident. no.	4405073
Rated switching distance	10 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 % ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3...20 %
Ambient temperature	-25...+70 °C
Operating voltage	10...65 VDC
Residual ripple	≤ 10 % U <sub>s</sub>
DC rated operational current	≤ 100 mA
Residual current	≤ 0.8 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I <sub>e</sub>	≤ 5 V
Wire breakage/Reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	0.01 kHz
Design	Threaded barrel, M30 × 1.5
Dimensions	64 mm
Housing material	Metal, CuZn, Chrome-plated

## Functional principle

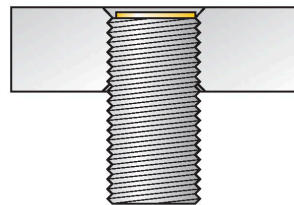
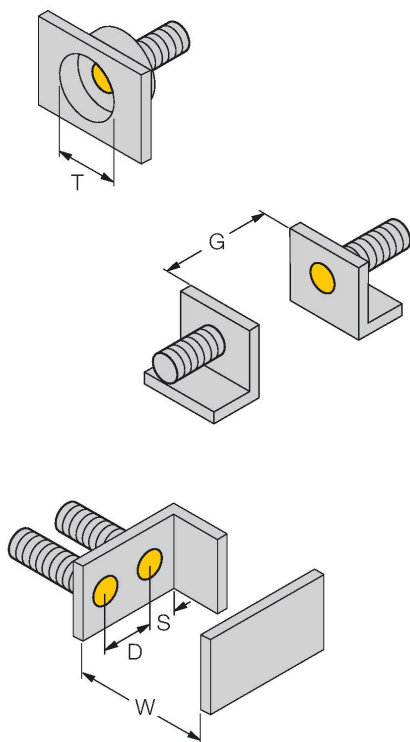
Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*<sup>®</sup>+ sensors have distinct advantages compared to conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient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

## Technical data

Active area material	Plastic, LCP
End cap	Plastic, EPTR
Max. tightening torque housing nut	75 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	2 x 0.34 mm <sup>2</sup>
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	60 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 30 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.

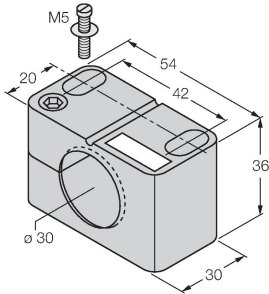
The use of isolating switching amplifiers is possible, because *uprox*<sup>®</sup>+ 2-wire DC sensors operate with 8 VDC low voltage (limited load current 50mA).

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

**BST-30B**

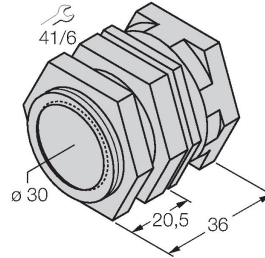
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Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

**QM-30**

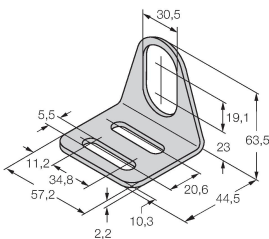
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Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

**MW30**

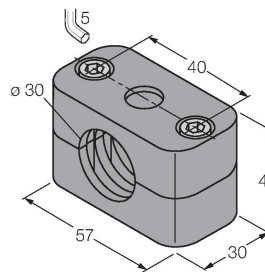
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Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

**BSS-30**

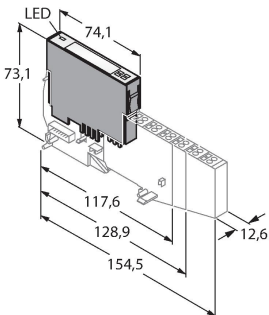
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Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

**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.