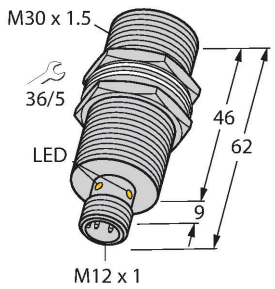
BI10U-MT30-AP6X2-H1141/S1589
Inductive Sensor – With WeldGuard™ coating



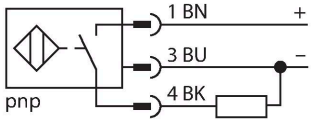
Technical data

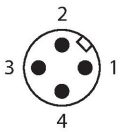
Type	BI10U-MT30-AP6X2-H1141/S1589
ID	1636291
Special version	S1589 Corresponds to:With weldguard coating
General data	
Rated switching distance	10 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3…15 %
Electrical data	
Operating voltage U_B	10…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_e	≤ 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_e	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
DC field stability	300 mT

Features

- Threaded barrel, M30 x 1.5
- Brass, PTFE
- Front cap with special coating, very resistant to thermal and mechanical load
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- 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 Factor 1 sensors have significant advantages due to their patented ferrite-coreless 3-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.
Turck WeldGuard sensors for use in welding systems are equipped with a thin coating made of thermosetting plastic. This high-tech coating is resistant to abrasion and withstands mechanical stress.

Technical data

AC field stability	300 mT_{ss}
Insulation class	⧈
Switching frequency	1 kHz
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	62 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PBT + WeldGuard™ , PTFE-coated
Max. tightening torque of housing nut	75 Nm
Electrical connection	Connector, M12 × 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
Power-on indication	LED, Green
Switching state	LED, Yellow

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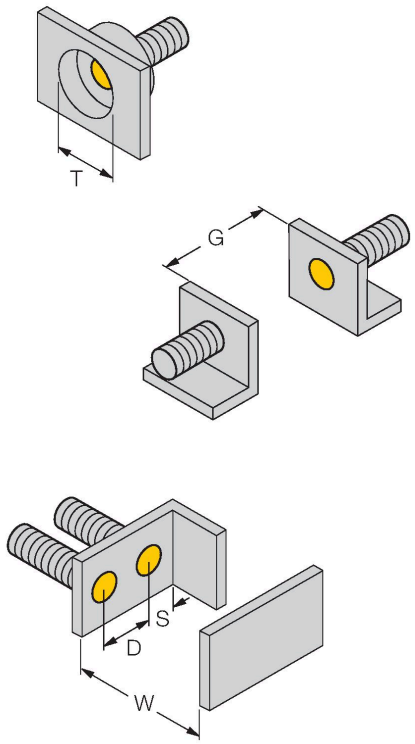
Mounting instructions

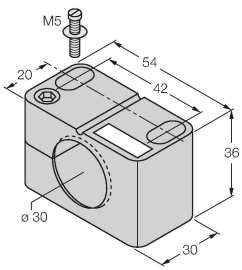
Mounting instructions/Description



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 30 mm

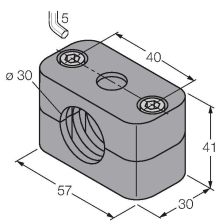
Accessories

BST-30B 6947216



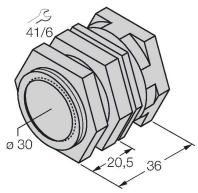
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

BSS-30 6901319



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

QMT-30 6945105



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

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