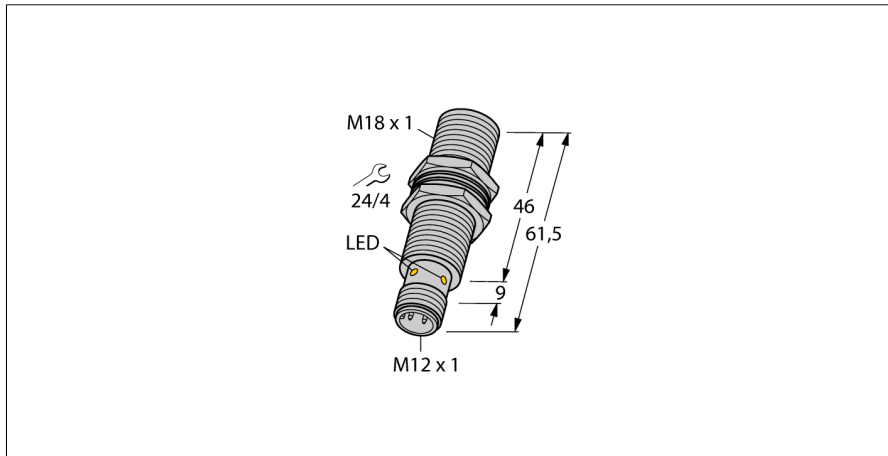


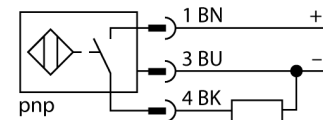
Inductive sensor
With WeldGuard™ coating
BI5U-MT18-AP6X2-H1141/S395/S1589



- Threaded barrel, M18 x 1
- 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

Type designation	BI5U-MT18-AP6X2-H1141/S395/S1589
Ident-No.	1635291
Special version	S395-S1589 corresponds to: Housing length: 61.5 mm; thread length: 46 mm; with WeldGuard™ coating
Rated switching distance Sn	5 mm
Mounting conditions	Flush
Secured operating distance	≤ (0,81 x Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Ambient temperature	3...15 %
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 20 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I ₀	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	2.5 kHz
Design	Threaded barrel, M18 × 1
Dimensions	61.5 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PBT + WeldGuard™ , PTFE-coated
Max. tightening torque housing nut	15 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
Power-on indication	LED, Green
Switching state	LED, Yellow

Wiring Diagram



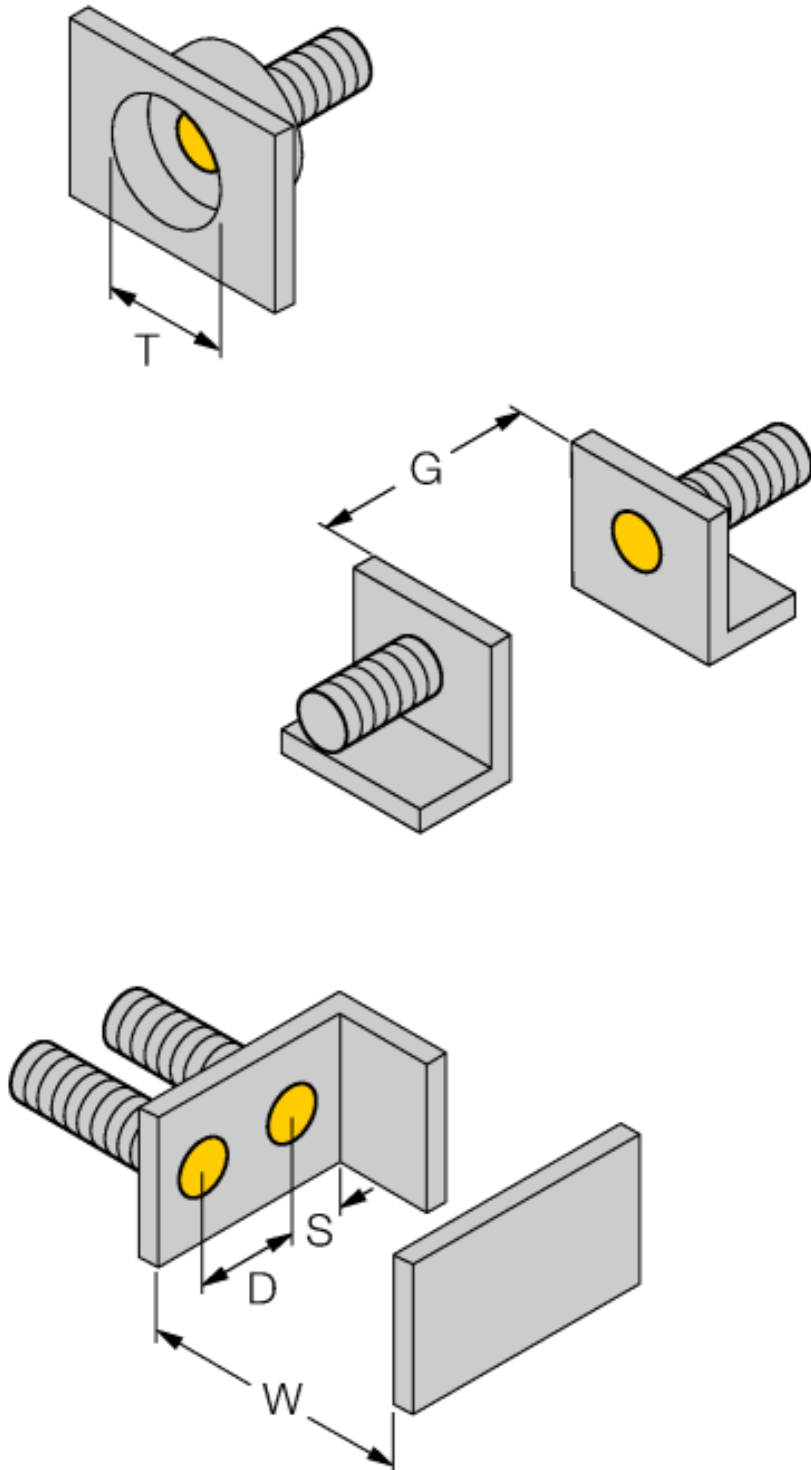
Functional principle

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 three-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.

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Distance D	2 x B
Distance T	3 x B
Diameter active area B	Ø 18 mm



**Inductive sensor
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Accessories

Type code	Ident-No.	Description	Dimension drawing
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	