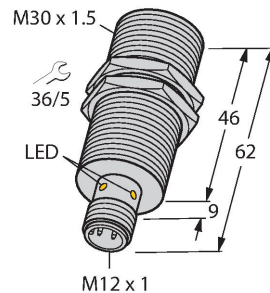


BI12-M30-AD4X-H1141

Inductive Sensor

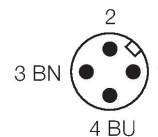
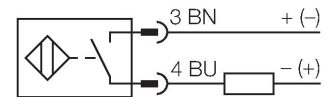


Features

- M30 × 1.5 threaded tube
- Chrome-plated brass
- DC 2-wire, 10...65 VDC
- NO contact
- M12 x 1 male connector

Technical data

Type	BI12-M30-AD4X-H1141
Ident. no.	4417041
Rated switching distance	12 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n) \text{ mm}$
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2 \text{ \% of full scale}$
Temperature drift	$\leq \pm 10 \text{ \%}$
Hysteresis	1...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...65 VDC
Residual ripple	$\leq 10 \text{ \% } U_{ss}$
DC rated operational current	$\leq 100 \text{ mA}$
Residual current	$\leq 0.6 \text{ mA}$
Isolation test voltage	$\leq 0.5 \text{ kV}$
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	$\leq 5 \text{ V}$
Wire breakage/Reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	$\geq 3 \text{ mA}$
Switching frequency	0.5 kHz
Design	Threaded barrel, M30 × 1.5
Dimensions	62 mm



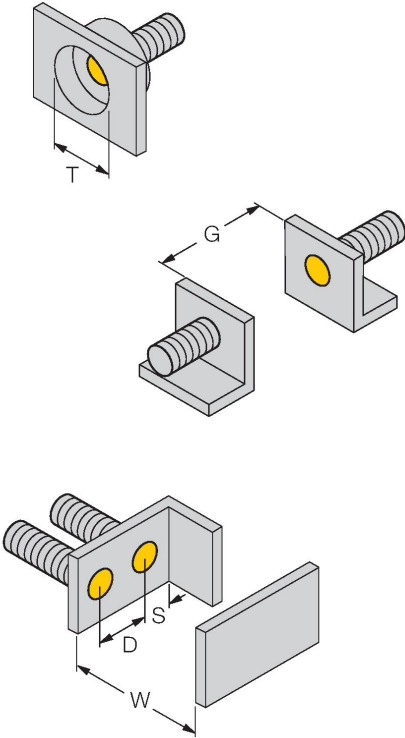
Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Max. tightening torque of housing nut	75 Nm
Electrical connection	Connector, M12 × 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

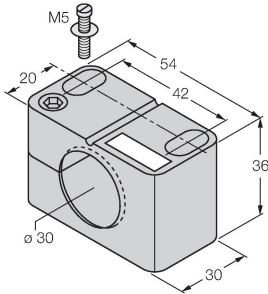
Mounting instructions

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

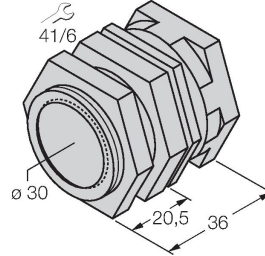
6947216



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

QM-30

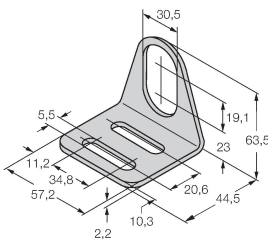
6945103



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.

MW-30

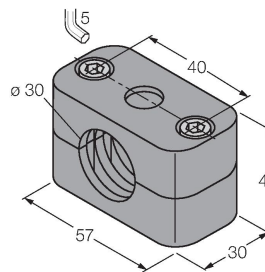
6945005



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

BSS-30

6901319



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

Wiring accessories

Dimension drawing

Type

RKC4T-2/TEL

Ident. no.

6625010

Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com

