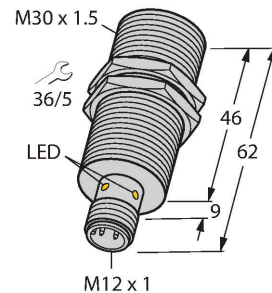


BI15-EMT30H-AP6X-H1141

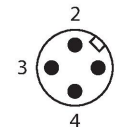
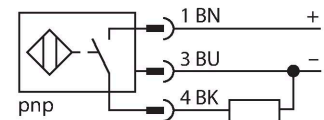
Inductive Sensor – With Increased Switching Distance



Features

- Threaded barrel, M30 x 1.5
- Stainless steel, 1.4301
- Duroplast front cap, very resistant to thermal and mechanical load
- Large sensing range
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Technical data

Type	BI15-EMT30H-AP6X-H1141
ID	4618570
General data	
Rated switching distance	15 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Mechanical data	
Design	Threaded barrel, M30 x 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	Stainless steel, 1.4301 (AISI 304)
Active area material	Plastic, Duroplast
Max. tightening torque of housing nut	75 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
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

A 3D perspective view of a square sensor unit with a circular active area in the center, highlighted in yellow. A dimension line labeled 'T' indicates the thickness of the unit.

A 3D perspective view showing two sensor units. One unit is mounted on a base, and the other is shown separately. A dimension line labeled 'G' indicates the distance between the mounting points of the two units.

A 3D perspective view showing two sensor units mounted side-by-side on a base. A dimension line labeled 'D' indicates the distance between the centers of the two active areas. A dimension line labeled 'S' indicates the distance from the edge of the base to the center of the active area. A dimension line labeled 'W' indicates the width of the base.

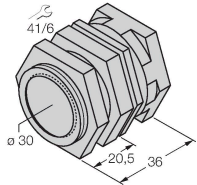
Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 30 mm

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Accessories

QM-30

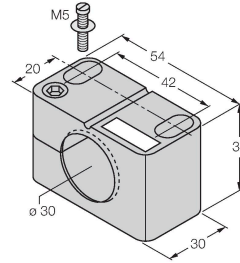
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Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-30B

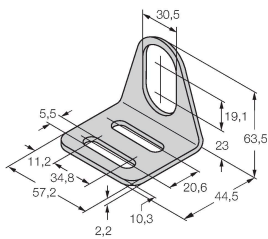
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Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW30

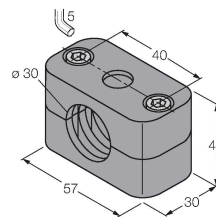
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Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-30

6901319



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