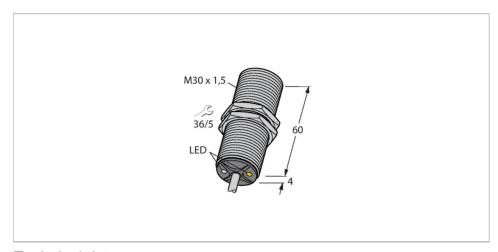


# BI15-G30-RDZ30X2 Inductive Sensor – With Increased Switching Distance



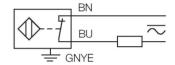
### Technical data

Туре	BI15-G30-RDZ30X2
ID	4207290
General data	
Rated switching distance	15 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Hysteresis	315 %
Electrical data	
Operating voltage $U_{\scriptscriptstyle B}$	20250 VAC
Operating voltage U <sub>B</sub>	10300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I <sub>e</sub>	≤ 300 mA
Frequency	≥ 50≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes/Latching
Voltage drop at I <sub>e</sub>	≤ 6 V
Wire break/reverse polarity protection	yes/Complete
Output function	2-wire, NC contact, 2-wire
Smallest operating current	≥ 3 mA

#### **Features**

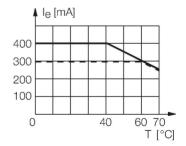
- ■Threaded barrel, M30 x 1.5
- Chrome-plated brass
- ■Large sensing range
- ■AC 2-wire, 20...250 VAC
- ■DC 2-wire, 10...300 VDC
- ■NC contact
- Cable connection

### Wiring diagram



# 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.



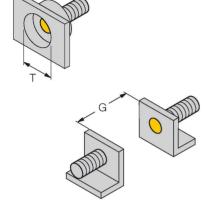


# Technical data

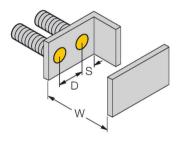
Switching frequency	0.02 kHz
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque of housing nut	75 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.5 mm²
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
Power-on indication	LED, Green
Switching state	LED, Red

# Mounting instructions

#### Mounting instructions/Description

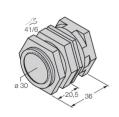


Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 30 mm



### Accessories

QM-30 6945103

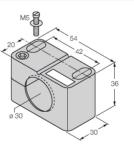


MW30

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.

1.4301 (AISI 304)

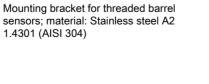
BST-30B



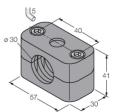
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

6947216

6945005



BSS-30 6901319



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

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