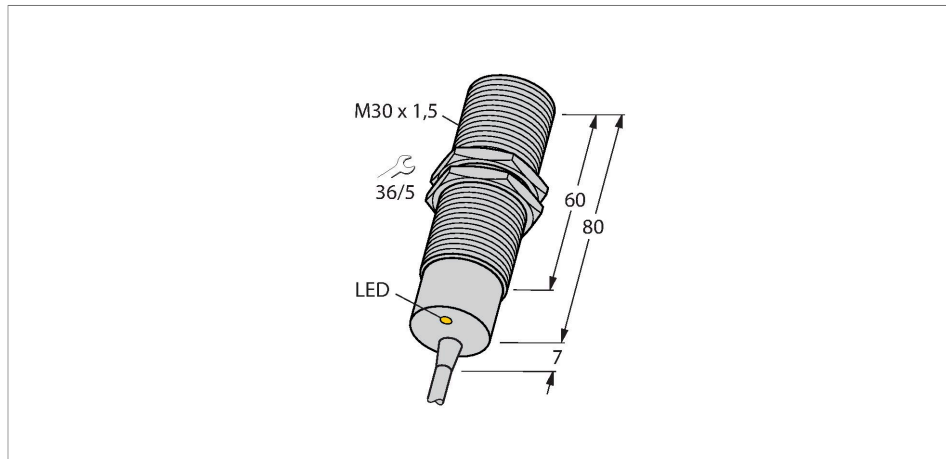


# BI10-M30-AZ3X/S120

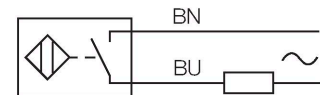
## Inductive Sensor – With Increased Temperature Range



### Features

- M30 × 1.5 threaded tube
- Chrome-plated brass
- S120 = Temperatures up to +120 °C
- AC 2-wire, 20...250 VAC
- NO contact
- Cable connection

### Wiring diagram

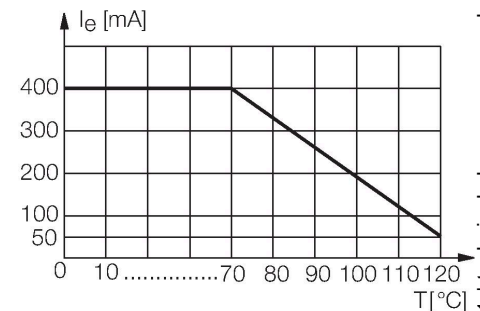


### Technical data

Type	BI10-M30-AZ3X/S120
ID no.	4316410
Special version	S120 corresponds to: Maximum ambient temperature = 120 °C
Rated switching distance	10 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 % ≤ ± 20 %, ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-25...+120 °C
Operating voltage	20...250 VAC
AC rated operational current	≤ 400 mA
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I <sub>o</sub>	≤ 6 V
Output function	2-wire, NO contact
Smallest operating current	≥ 3 mA
Switching frequency	0.02 kHz

### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Special versions are available for ambient temperatures between -60°C and +250°C.



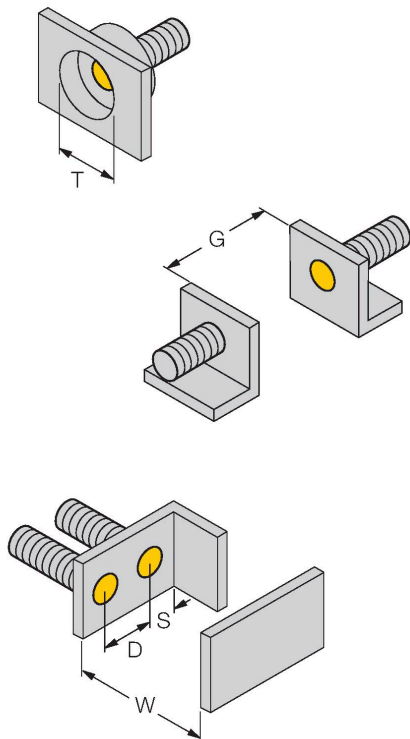
BI10-M30-AZ3X/S120 | 01/30/2021 00-01 | technical changes reserved

## Technical data

Design	Threaded barrel, M30 × 1.5
Dimensions	87 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, PA12-GF30
Max. tightening torque of housing nut	75 Nm
Electrical connection	Cable
Cable quality	Ø 6 mm, SiHSi, Silicone, 2 m
Core cross-section	3 x 0.75 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	LED, Yellow

## Mounting instructions

### Mounting instructions/Description

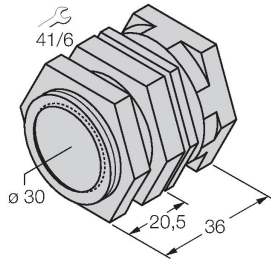


Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 30 mm

## Accessories

QM-30

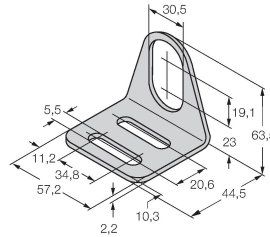
6945103



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)