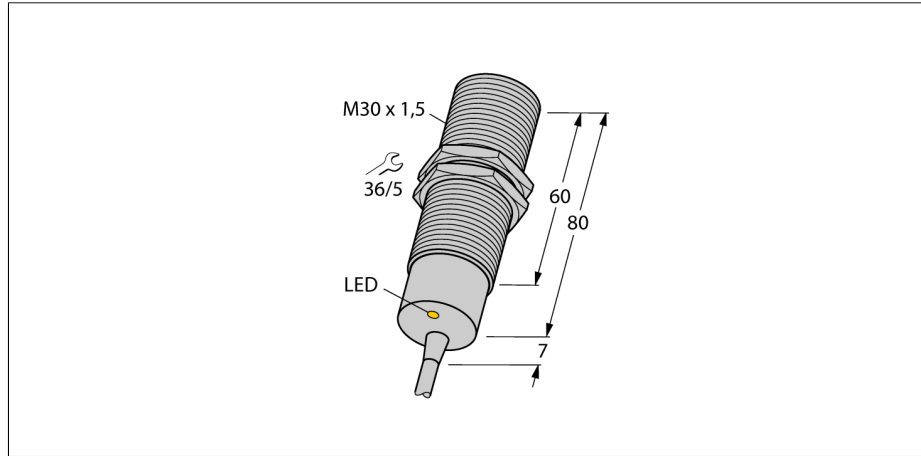
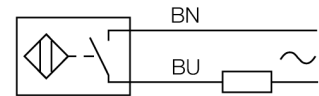


**Inductive sensor
with extended temperature range
BI10-M30-AZ3X/S120**



- Threaded barrel, M30 x 1.5
- Chrome-plated brass
- For temperatures up to +120°C
- AC 2-wire, 20...250 VAC
- NO contact
- Cable connection

Wiring diagram



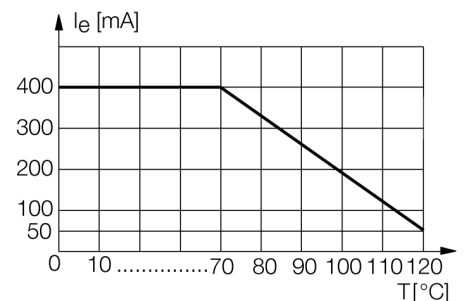
Type code	BI10-M30-AZ3X/S120
Ident no.	4316410
Rated operating distance Sn	10 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
	≤ ± 20 %, ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-25...+120 °C
Operating voltage	20...250 VAC
AC rated operational current	≤ 400 mA
Rated operational current	see derating curve
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Rated insulation voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I _e	≤ 6 V
Output function	2-wire, NO contact
Smallest operating current I _m	≤ 3 mA
Switching frequency	0.02 kHz
Design	threaded barrel, M30 x 1.5
Dimensions	87 mm
Housing material	Metal, CuZn, chrome-plated
Material active face	Plastic, PA
End cap	Plastic, PA12-GF30
Max. tightening torque housing nut	75 Nm
Connection	cable
Cable quality	6 mm, SiHSi, Silicone, 2 m
Cable cross section	3 x 0.75 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	● yellow

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.

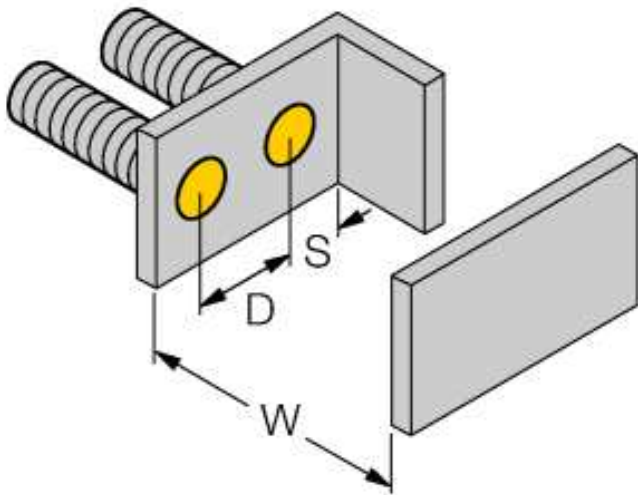
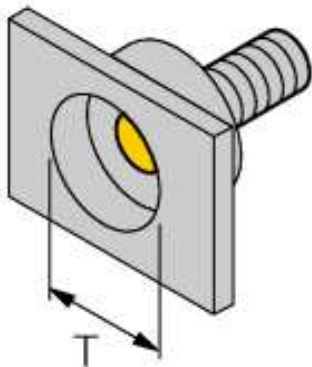
Special versions are available for ambient temperatures between -60°C and +250°C.

derating curve



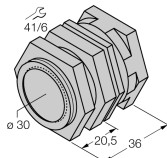
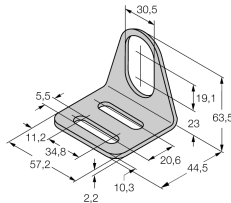
**Inductive sensor
with extended temperature range
BI10-M30-AZ3X/S120**

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
<hr/>	
Diameter of the active area B	Ø 30 mm



**Inductive sensor
with extended temperature range
BI10-M30-AZ3X/S120**

Accessories

Type code	Ident no.	Description	Dimension drawing
QM-30	6945103	Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M36 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets.	 <p>Technical drawing of a quick-mount bracket (QM-30) showing dimensions: 41/6 (thread), 30 (diameter), 20.5 (width), and 36 (height).</p>
MW-30	6945005	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	 <p>Technical drawing of a mounting bracket (MW-30) showing dimensions: 30.5 (width), 19.1 (height), 63.5 (total height), 23 (height to hole), 5.5 (hole offset), 11.2 (hole diameter), 34.8 (hole diameter), 57.2 (total width), 2.2 (thickness), 10.3 (hole offset), 20.6 (hole diameter), and 44.5 (total width).</p>