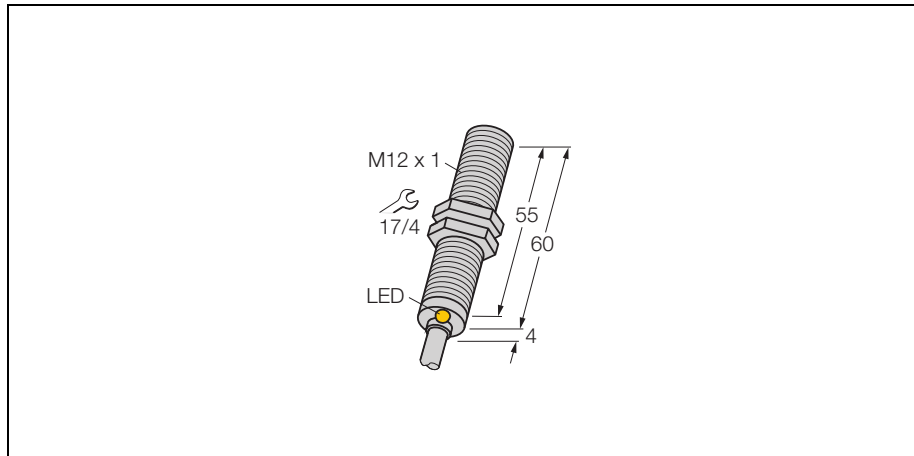
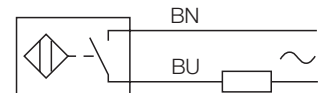


**Inductive sensor
Bi2-M12-AZ31X**



- threaded barrel, M12 x 1
- Chrome-plated brass
- AC 2-wire, 20...250 VAC
- 2-wire DC, 10...300 VDC
- normally open
- cable connection

Wiring diagram



Functional principle

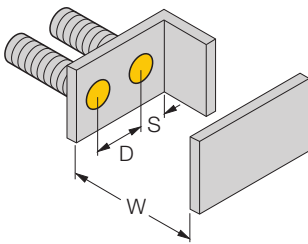
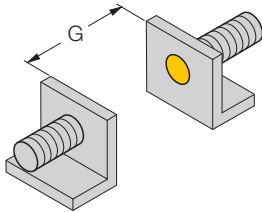
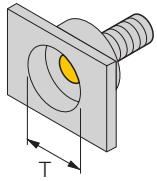
Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. Concerning inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

Type	Bi2-M12-AZ31X
Ident-No.	13030
Rated operating distance Sn	2 mm
Mounting condition	flush
Assured sensing range	(0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	2 %
Temperature drift	± 10 %
Hysteresis	3... 15 %
Ambient temperature	-25...+ 70 °C
Operating voltage	20... 250VAC
Operating voltage	10... 300VDC
AC rated operational current	100 mA
DC rated operational current	100 mA
Frequency	50... 60 Hz
Residual current	1.7 mA
Rated insulation voltage	1.5 kV
Surge current	1 A (10 ms max. 5 Hz)
Voltage drop at I _e	6V
Output function	2-wire, normally open
Smallest operating current I _m	≥ 3 mA
Switching frequency	0.02 kHz
Housing	threaded barrel, M12 x 1
Dimensions	64 mm
Housing material	metal, CuZn, chrome-plated
Material active face	plastic, PA12-GF30
End cap	plastic, EPTR
Tightening torque of housing nut	10 Nm
Connection	cable
Cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	2 x 0.34mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Display switch state	LED yellow

**Inductive sensor
Bi2-M12-AZ31X**

Mounting instructions	minimum distances
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 of the active area B Ø 12 mm


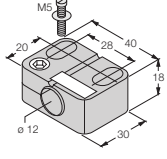
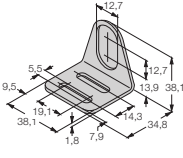


Inductive sensor Bi2-M12-AZ31X

TURCK

Industrial
Automation

Accessories

Type code	Ident-No.	Short text	Dimension drawing
QM-12	6945101	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M16 x 1. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
BST-12B	6947212	fixing clamp with dead-stop; material: PA6	
MW-12	6945003	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-12	6901321	fixing clamp; material: polypropylene	