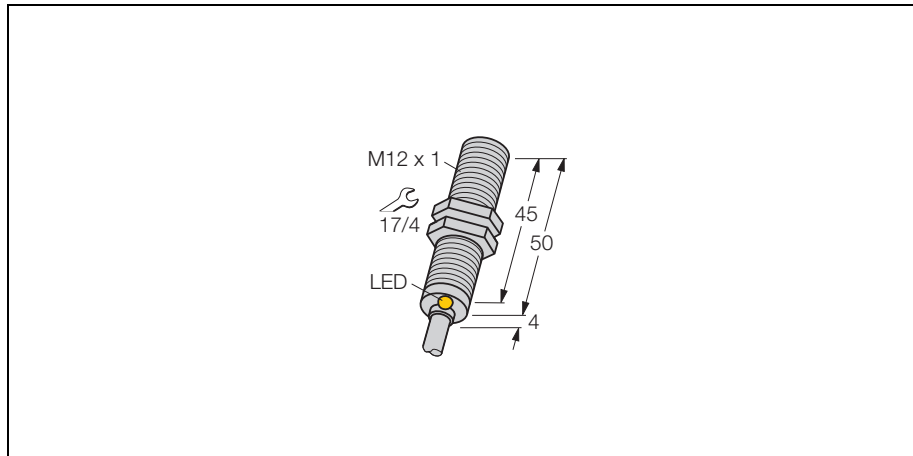
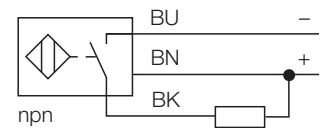


**Inductive sensor
with extended switching distance
Bi4-M12-AN6X**



- threaded barrel, M12 x 1
- Chrome-plated brass
- large detection range
- 3-wire DC, 10...30 VDC
- normally open npn output
- cable connection

Wiring diagram



Functional principle

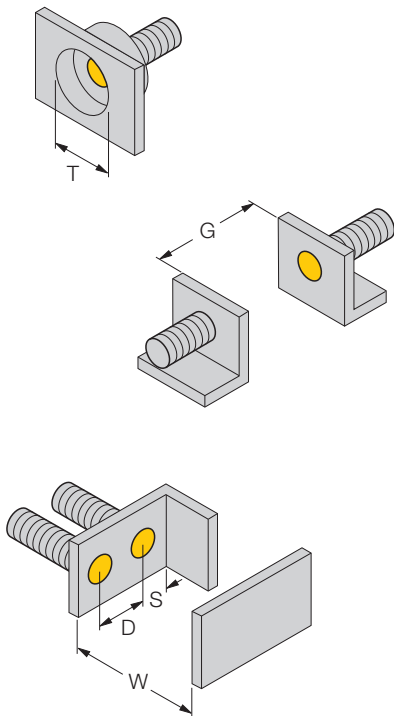
Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

Type	Bi4-M12-AN6X
Ident-No.	4607130
Rated operating distance Sn	4 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	10... 30 VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I _e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, NO contact, NPN
Switching frequency	≤ 2kHz
Housing	threaded barrel, M12 x 1
Dimensions	54 mm
Housing material	metal, CuZn, chrome-plated
Material active face	Plastic, PA12-GF30
End cap	plastic, EPTR
Tightening torque of housing nut	10 Nm
Electrical connection	cables
Cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	3 x 0.34mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP67
Display switch state	LED yellow

**Inductive sensor
with extended switching distance
Bi4-M12-AN6X**


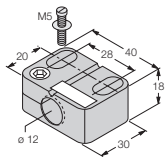
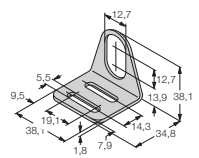
Mounting instructions	minimum distances
Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn

Diameter of the active area B	Ø 12 mm
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**Inductive sensor
with extended switching distance
Bi4-M12-AN6X**

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	