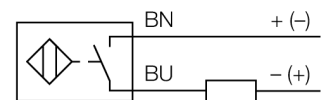


- Threaded barrel, M12 x 1
- Long version
- Chrome-plated brass
- Factor 1 for all metals
- Resistant to magnetic fields
- 2-wire DC, 10...65 VDC
- NO contact
- Cable connection

Wiring diagram



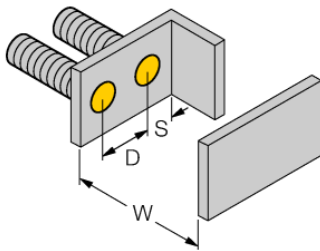
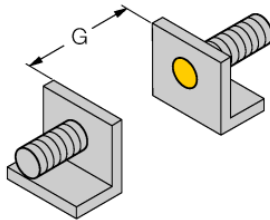
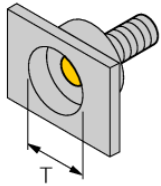
Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*®+ sensors have distinct advantages compared to conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Type code	BI2U-M12E-AD4X
Ident no.	4405062
Rated operating distance Sn	2 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
Hysteresis	3...20 %
Ambient temperature	0...+70 °C
Operating voltage	10...65VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 100 mA
Residual current	≤ 0.8 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I _n	≤ 5 V
Smallest operating current I _n	≤ 3 mA
Switching frequency	0.02 kHz
Design	threaded barrel, M12 x 1
Dimensions	64 mm
Housing material	metal, CuZn, chrome-plated
Material active area	Plastic, LCP
End cap	Plastic, EPTR
Max. tightening torque housing nut	10 Nm
Connection	cable
Cable quality	5.2 mm, LifYY, PVC, 2 m
Cable cross section	2 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

Distance D	24 mm
Distance W	6 mm
Distance T	36 mm
Distance S	18 mm
Distance G	12 mm

Diameter of the active area B \varnothing 12 mm



Flush and recessed mounting of all *uprox*®+ threaded barrel sensors. Safe operation is ensured if the sensor is screwed in by half a turn.

Isolating switching amplifiers can be applied because *uprox*®+ 2-wire DC sensors work with 8 VDC low operating voltage (limited load current 50 mA).

The sensors can be operated with the Turck remote I/O fieldbus system BL20. If the sensors are combined with a BL20-4DI-NAMUR slice, events of wire-break or short-circuit can be detected immediately.

Accessories

Type code	Ident no.	Description	Dimension drawing
BL20-4DI-NAMUR	6827212	4 digital inputs acc. to EN 60947-5-6. For NAMUR sensors, de-energized contacts or uprox®+ 2-wire DC sensors.	
QM-12	6945101	Quick-mount bracket 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-mount brackets.	
BST-12B	6947212	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
MW-12	6945003	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	