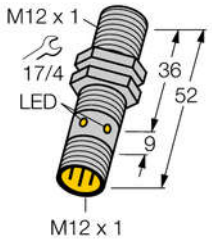
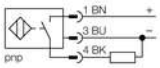
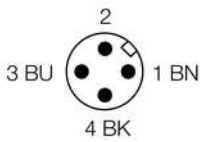
Inductive sensor
BI4U-M12-AP6X-H1141



- **Threaded barrel, M12 x 1**
- **Chrome-plated brass**
- **Factor 1 for all metals**
- **Protection class IP68**
- **Magnetic field immune**
- **High switching distance**
- **Recessed mounting possible**
- **DC 3-wire, 10…30 VDC**
- **NO contact, PNP output**
- **M12 x 1 connector**

Wiring diagram





Type	BI4U-M12-AP6X-H1141
Ident-No.	1634804
Rated operating distance Sn	4 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 %
Temperaturdrift	10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3…15 %
Ambient temperature	-30…+85 °C
Operating voltage	10…30VDC
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, PNP
Protection class	⧈
Switching frequency	2 kHz
Design	threaded barrel, M12 x 1
Dimensions	52 mm
Housing material	Metal, CuZn, chrome-plated
Material active face	Plastic, LCP-GF30
Max. tightening torque housing nut	10 Nm
Connection	connector, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

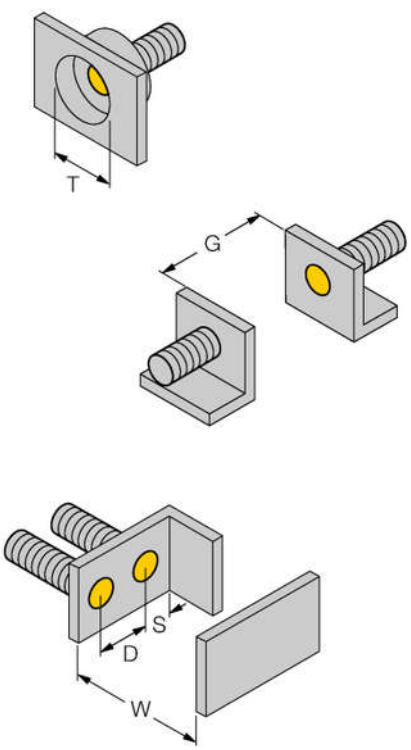
Functional principle

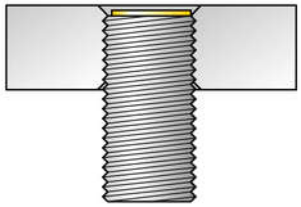
Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *Uprox*®+ sensors have distinct advantages compared to conventional sensors. They excel in highest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

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Mounting instructions	minimum distances
Distance D	24 mm
Distance W	12 mm
Distance T	36 mm
Distance S	18 mm
Distance G	24 mm

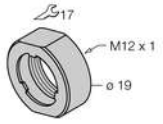
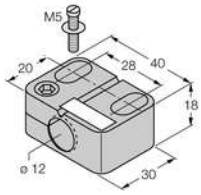
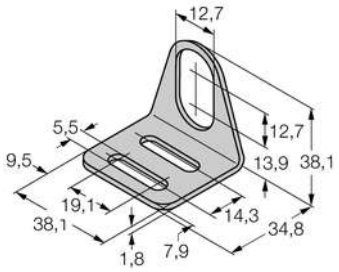
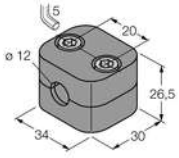
Diameter of the active area B	Ø 12 mm





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

Accessories

Type code	Ident-No.	Short text	Dimension drawing
PN-M12	6905309	Impact protection nut for M12x1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)	
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	

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