



- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- 4-wire DC, 10...65 VDC
- Changeover contact, PNP output
- Male M12 x 1

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multicore system, *uprox®* sensors have distinct advantages over conventional sensors. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Type code	BI3U-MT12E-VP4X-H1141
Ident no.	1580356
Rated operating distance Sn	3 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...65VDC
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
Voltage drop at I ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, changover contact, PNP
Protection class	□
Switching frequency	2 kHz
Design	threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	metal, CuZn, PTFE-coated
Material active area	Plastic, LCP, PTFE-coated
End cap	Plastic, EPTR
Max. tightening torque housing nut	7 Nm
Connection	male, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

**Inductive sensor
BI3U-MT12E-VP4X-H1141**

Distance D	24 mm
Distance W	9 mm
Distance T	36 mm
Distance S	18 mm
Distance G	18 mm

Diameter of the active area B \varnothing 12 mm



Accessories

Type code	Ident no.	Description	Dimension drawing
BST-12B	6947212	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
QMT-12	6945106	Quick-mount bracket with dead-stop; material: brass, PTFE-coated; male thread M16 x 1. Note: The switching distance of the proximity switches may reduce when using quick-mount brackets.	
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	