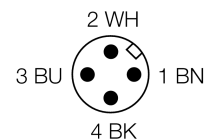
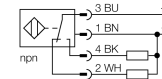


- Threaded barrel, M12 x 1
- Long version
- Chrome-plated brass
- Factor 1 for all metals
- Magnetic field immune
- Extended temperature range
- High switching frequency
- DC 4-wire, 10...65 VDC
- Changeover contact, NPN output
- M12 x 1 connector

**Wiring diagram**



**Functional principle**

Inductive sensors detect metal objects contactless and wear-free. Due to the patented ferrite-less 3-coil system, *uprox®* factor 1 sensors have distinct advantages compared to conventional sensors. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

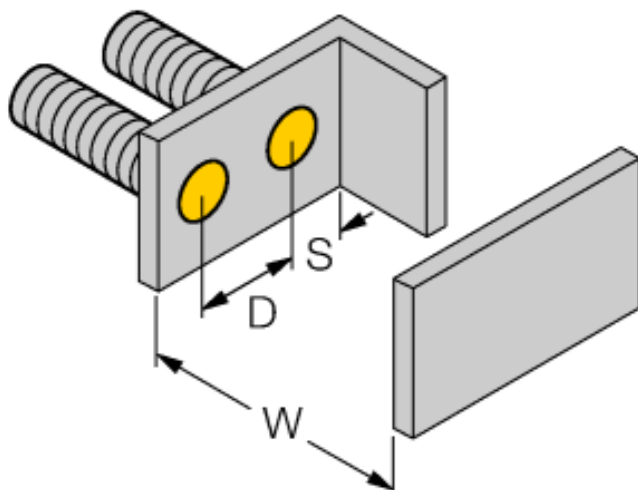
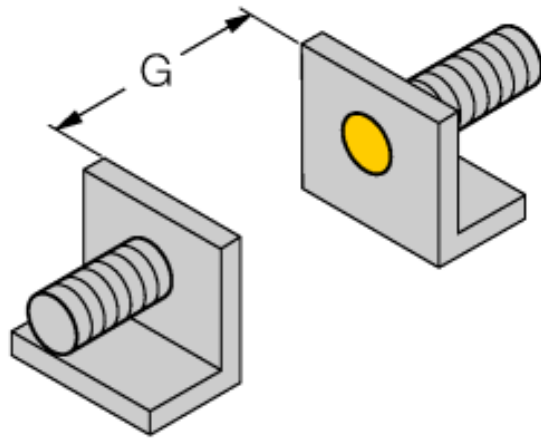
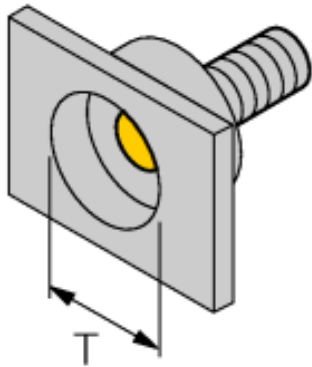
<b>Type</b>	BI3U-M12E-VN4X-H1141
<b>Ident-No.</b>	1580354
<b>Rated operating distance Sn</b>	3 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 %
Temperaturdrift	10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
<b>Operating voltage</b>	10...65VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, changover contact, NPN
Protection class	☐
Switching frequency	3 kHz
<b>Design</b>	threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	Metal, CuZn, chrome-plated
Material active face	Plastic, LCP
Max. tightening torque housing nut	10 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
<b>Switching state</b>	• yellow

**Inductive sensor**  
**BI3U-M12E-VN4X-H1141**

Mounting instructions / Description	minimum distances
Distance D	24 mm
Distance W	9 mm
Distance T	36 mm
Distance S	18 mm
Distance G	18 mm

---

<b>Diameter of the active area B</b>	Ø 12 mm
--------------------------------------	---------



**Accessories**

Type code	Ident-No.	Description	Dimension drawing
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	