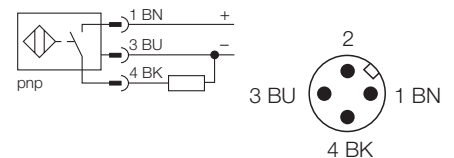


- threaded barrel, M12 x 1
- stainless steel, 1.4301
- factor 1 for all metals
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- connector, M12 x 1

Wiring diagram



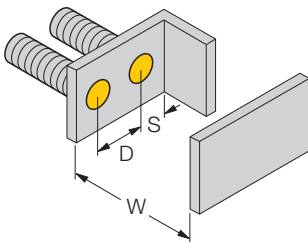
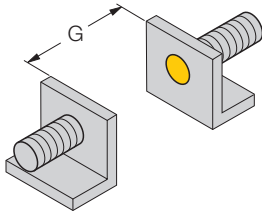
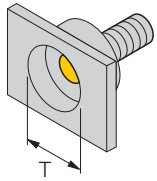
Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. Due to a ferrite-less 3-coil system, uprox factor 1 sensors have distinct advantages. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

Type	Bi3U-EM12-AP6X-H1141
Ident-No.	1634340
Rated operating distance Sn	3 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 %
Temperature drift	≤ ± 10 %
Hysteresis	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
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	≤ 1.8V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Insulation class	□
Switching frequency	≤ 3 kHz
Housing	threaded barrel, M12 x 1
Dimensions	52 mm
Housing material	metal, AISI 304
Material active face	plastic, PBT
Tightening torque of housing nut	10 Nm
Connection	connectors, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP68
Display switch state	LED yellow

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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Accessories

Type code	Ident-No.	Short text	Dimension drawing
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	