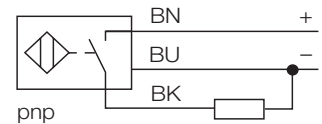


- threaded barrel, M12 x 1
- plastic, PBT-GF30-V0
- factor 1 for all metals
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- predamping protection through self-compensation
- 3-wire DC, 10..0.30 VDC
- normally open, pnp output
- cable connection

Type	Ni8U-S12-AP6X
Ident-No.	1644500
Rated operating distance Sn	8 mm
Mounting condition	non-flush, partial embedding possible
Assured switching distance	≤ (0,81 x Sn) mm
Repetition accuracy	≤ 2 %
Temperature drift	≤ ± 10 %
Hysteresis	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
ambient temperature	-30 ... + 85 °C
Operating voltage	10... 30 V DC
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 dip at I _e	≤ 1.8 V
Wire breakage / reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Insulation class	□
Switching frequency	≤ 2 kHz
Housing style	threaded barrel; M12 x 1
Dimensions	54 mm
Housing material	plastic, PBT-GF20-V0
Material active area	plastic, PBT-GF20-V0
End cap	plastic, EPTR
Housing nut tightening torque	1 Nm
Connection	cable
cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	3 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection degree	IP68
Switch state display	LED yellow

Wiring diagram

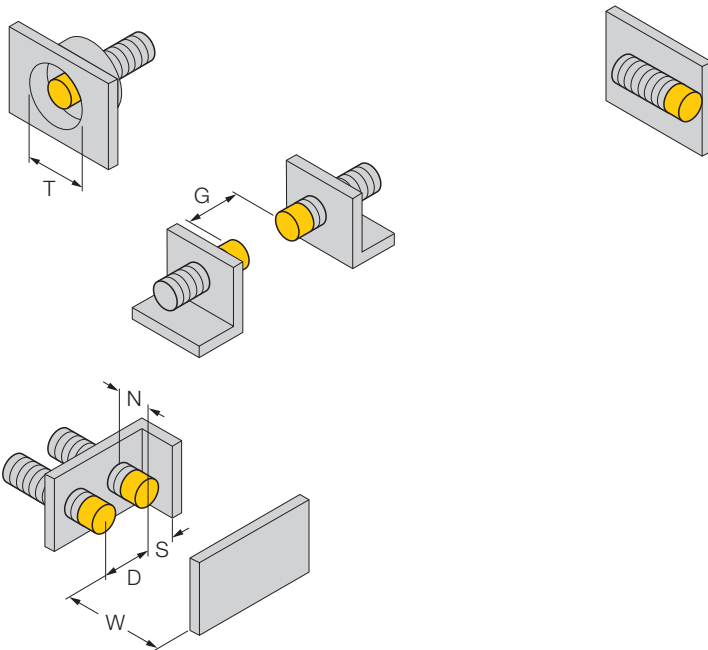


Function principle

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.


Mounting instructions	minimum distances
Distance D	3 x B
Distance W	3 x Sn
Distance T	45 mm
Distance S	0,5 x B
Distance G	6 x Sn
Distance N	2 x Sn

Diameter of the active area B	Ø 12 mm
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1-side flush mounting possible
1-side flush mounting: $S_r = 6 \text{ mm}$

Accessories

Type code	Ident-No.	Short text	Dimension drawing
QM-12	6945101	quick-mount fixing clamp 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 mounting brackets.	
BST-12B	6947212	fixing clamp with dead-stop; material: PA6	