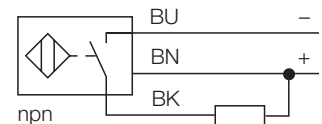


- Threaded barrel, M18 x 1
- Plastic, PBT-GF30-V0
- factor 1 for all metals
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- predamping protection through self-compensation
- 3-wire DC, 10...30 VDC
- normally open npn output
- cable connection

Wiring diagram



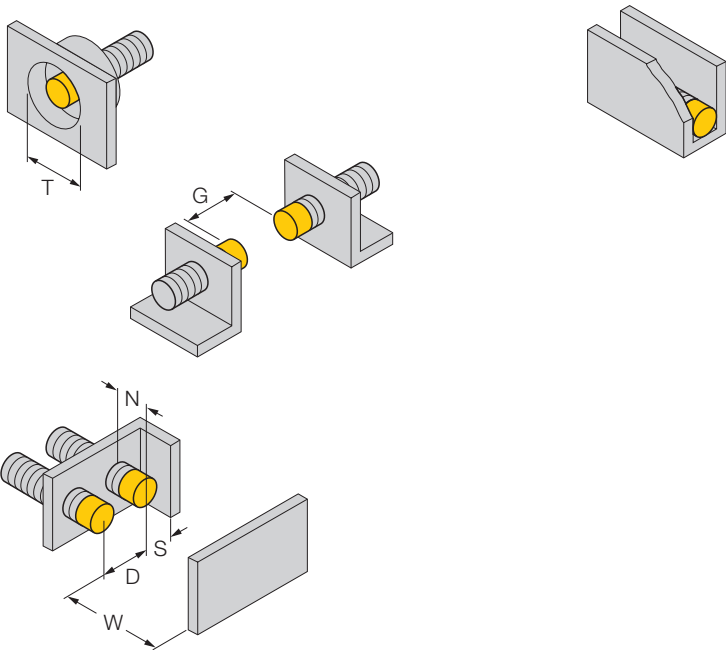
Functional principle

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	Ni12U-S18-AN6X
Ident-No.	1645520
Rated operating distance Sn	12 mm
Mounting condition	non-flush, partial embedding possible
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 %
Temperature drift	≤ ± 10 %
Hysteresis	≤ ± 20 %, ≤ -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, npn
Insulation class	□
Switching frequency	≤ 2 kHz
Housing	threaded barrel, M18 x 1
Dimensions	64 mm
Housing material	plastic, PBT-GF20-V0
Material active face	plastic, PBT-GF20-V0
End cap	plastic, EPTR
Tightening torque of housing nut	2 Nm
Connection	cable
Cable quality	Ø 5.2, LiYY, PVC, 2 m
Cable cross section:	3 x 0.34mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP68
Display switch state	LED yellow

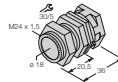
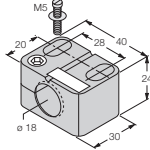
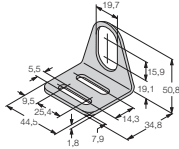
Mounting instructions	minimum distances
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	0,5 x B
Distance G	6 x Sn
Distance N	2 x Sn

Diameter of the active area B Ø 18 mm



up to 3-side flush mounting possible
 1-side flush mounting: $S_r = 10 \text{ mm}$
 2-side flush mounting: $S_r = 9 \text{ mm}$
 3-side flush mounting: $S_r = 9 \text{ mm}$

Accessories

Type code	Ident-No.	Short text	Dimension drawing
QM-18	6945102	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
BST-18B	6947214	fixing clamp with dead-stop; material: PA6	
MW-18	6945004	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	fixing clamp; material: polypropylene	