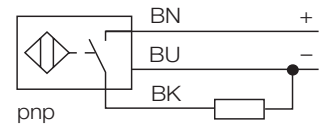


- Threaded barrel, M18 x 1
- Plastic, PBT-GF30-V0
- factor 1 for all metals
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- predamping protection through self-compensation
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

**Wiring diagram**



**Functional principle**

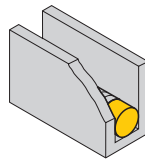
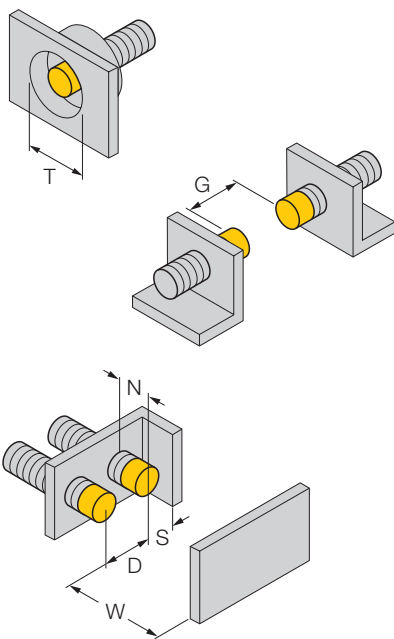
Inductive sensors are designed for wear-free and non-contact detection of metal objects. Due to a ferrite-less 3-coil system, uprox factor 1 sensors have distinct advantages. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

<b>Type</b>	Ni12U-S18-AP6X
Ident-No.	1645500
<b>Rated operating distance Sn</b>	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
<b>Operating voltage</b>	10... 30VDC
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>e</sub>	≤ 1.8V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Insulation class	□
Switching frequency	≤ 2 kHz
<b>Housing</b>	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 <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP68
<b>Display switch state</b>	LED yellow

Mounting instructions	minimum distances
Distance D	3 x B
Distance W	3 x Sn
Distance T	65 <b>MM</b>
Distance S	0,5 x B
Distance G	6 x Sn
Distance N	2 x Sn

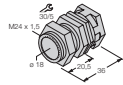
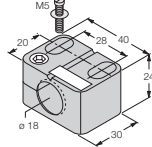
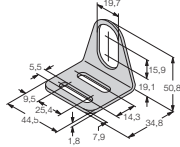
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<b>Diameter of the active area B</b>	Ø 18 mm
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up to 3-side flush mounting possible  
 1-side flush mounting:  $S_r = 10 \text{ mm}$   
 2-side flush mounting:  $S_r = 9 \text{ mm}$   
 3-side flush 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	