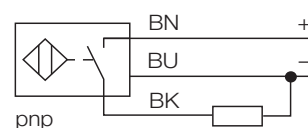


- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Magnetic field immune
- Extended temperature range
- High switching frequency
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

Wiring diagram

Functional principle

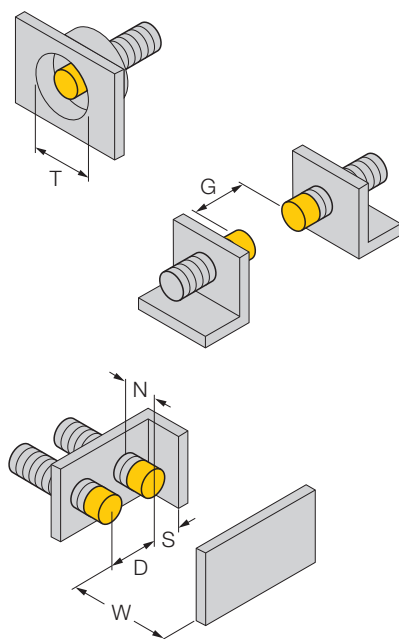
Inductive sensors are designed for wear-free and non-contact detection of metal objects. Due to a ferrite-less 3-coil system, uprox factor 1 sensors have distinct advantages. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

Type	NI12U-M18-AP6X
Ident-No.	1645100
Rated operating distance Sn	12 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 %
Temperature drift	≤ ± 10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3... 15 %
Ambient temperature	-30...+ 85 °C
Operating voltage	10... 30 VDC
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	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, NO contact, PNP
Protection class	□
Switching frequency	≤ 2kHz
Housing	threaded barrel, M18 x 1
Dimensions	54 mm
Housing material	metal, CuZn, chrome-plated
Material active face	Plastic, LCP-GF30
End cap	plastic, EPTR
Tightening torque of housing nut	25 Nm
Electrical connection	cables
Cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	3 x 0.34mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP67
Display switch state	LED yellow

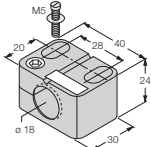
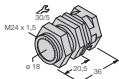
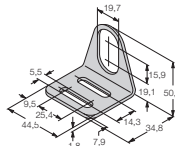
**Inductive sensor
NI12U-M18-AP6X**

Mounting instructions	minimum distances
Distance D	72 mm
Distance W	36 mm
Distance T	54 mm
Distance S	27 mm
Distance G	72 mm
Distance N	20 mm

Diameter of the active area B	Ø 18 mm
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Accessories

Type code	Ident-No.	Short text	Dimension drawing
BST-18B	6947214	Fixing clamp with dead-stop; material: PA6	
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.	
MW-18	6945004	Mounting bracket; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	Fixing clamp; material: Polypropylene	