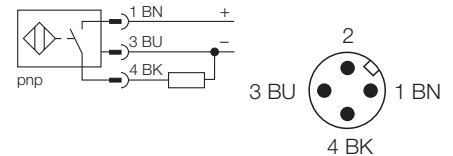


- threaded barrel, M30 x 1,5
- chrome-plated brass
- factor 1 for all metals
- magnetic field immune
- extended temperature range
- high switching frequency
- predamping protection through self-compensation
- 3-wire DC, 10..0.30 VDC
- normally open, pnp output
- connector, M12 x 1

#### Wiring diagram



#### Function principle

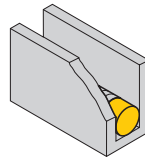
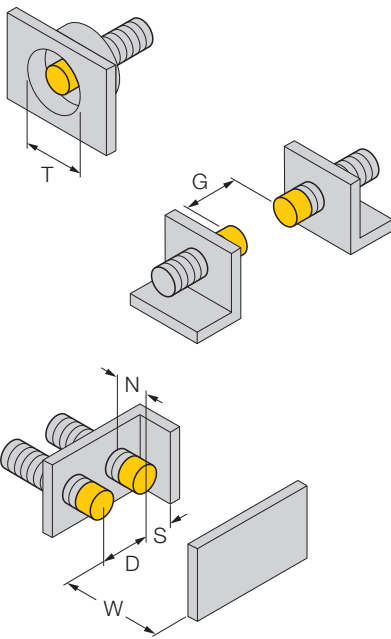
Inductive sensors are designed for wear-free and non-contact detection of metal objects. Due to a ferrite-less 3-coil system, uprox factor 1 sensors have distinct advantages. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

<b>Type</b>	Ni20U-M30-AP6X-H1141
Ident-No.	1646140
<b>Rated operating distance Sn</b>	20 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
<b>Operating voltage</b>	10... 30 V DC
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 dip at I <sub>e</sub>	≤ 1.8 V
Wire breakage / reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Insulation class	□
Switching frequency	≤ 1.5 kHz
<b>Housing style</b>	threaded barrel; M30 x 1,5
Dimensions	62 mm
Housing material	metal, CuZn, chrome-plated
Material active area	plastic, PBT
Housing nut tightening torque	75 Nm
Connection	connector, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection degree	IP67
<b>Switch state display</b>	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

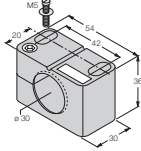
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<b>Diameter of the active area B</b>	Ø 30 mm
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3-side flush mounting possible  
1-side flush mounting:  $S_r = 15 \text{ mm}$   
2-side flush mounting:  $S_r = 12 \text{ mm}$   
3-side flush mounting:  $S_r = 11 \text{ mm}$

**Accessories**

Type code	Ident-No.	Short text	Dimension drawing
BST-30B	6947216	fixing clamp with dead-stop; material: PA6	
QM-30	6945103	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M36 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	