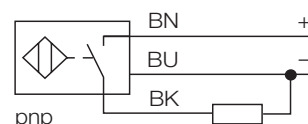


- threaded barrel, M30 x 1.5
- Chrome-plated brass
- factor 1 for all metals
- magnetic field immune
- extended temperature range
- high switching frequency
- predamping protection through self-compensation
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

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	Ni20U-M30-AP6X
Ident-No.	1646100
Rated operating distance Sn	20 mm
Mounting condition	non-flush, partial embedding possible
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Repeatability	$\leq 2 \%$
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$
Hysteresis	3... 15 %
Ambient temperature	-30... + 85 °C
Operating voltage	10... 30VDC
Residual ripple	$\leq 10 \%$ 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, normally open, pnp
Insulation class	□
Switching frequency	≤ 1.5 kHz
Housing	threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	metal, CuZn, chrome-plated
Material active face	plastic, PBT
End cap	plastic, EPTR
Tightening torque of housing nut	75 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	IP67
Display switch state	LED yellow

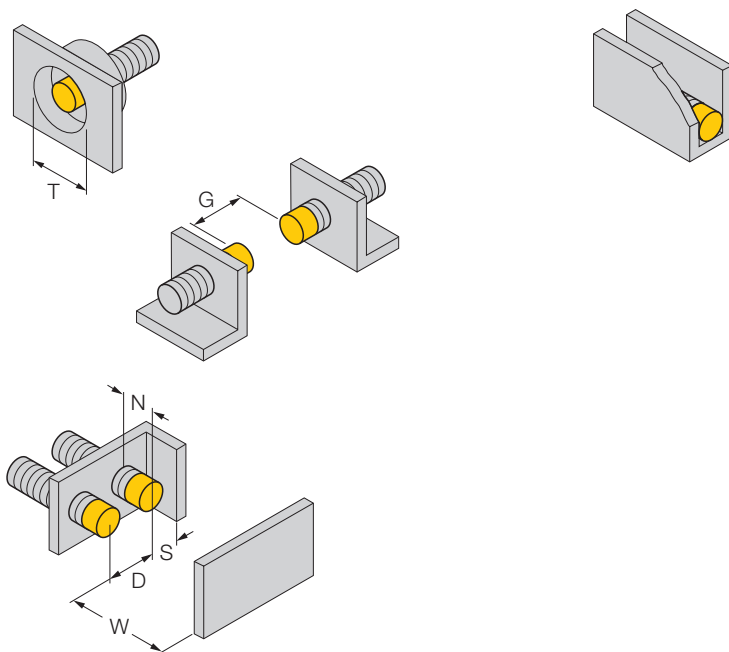
Mounting instructions

	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

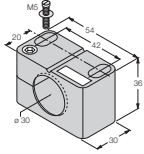
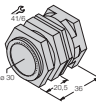
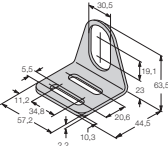
Diameter of the active area B

Ø 30 mm

up to 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.	
MW-30	6945005	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-30	6901319	fixing clamp; material: polypropylene	