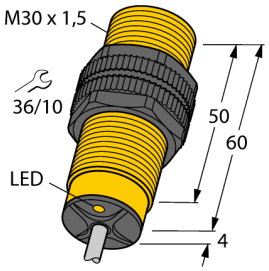
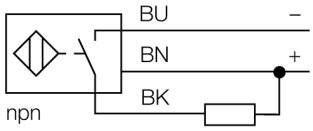
Inductive sensor
NI20U-S30-AN6X



- **Threaded barrel, M30 x 1.5**
- **Plastic, PA12-GF30**
- **Factor 1 for all metals**
- **Protection class IP68**
- **Resistant to magnetic fields**
- **Extended temperature range**
- **High switching frequency**
- **Auto-compensation protects against pre-attenuation**
- **3-wire DC, 10…30 VDC**
- **NO contact, NPN output**
- **Cable connection**

Type code	NI20U-S30-AN6X
Ident no.	1646520
Rated operating distance Sn	20 mm
Mounting condition	non-flush, partially embeddable
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
	≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3…15 %
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	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, NPN
Protection class	⧈
Switching frequency	1.5 kHz
Design	threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	plastic, PA
Material active area	Plastic, PA
End cap	Plastic, EPTR
Max. tightening torque housing nut	5 Nm
Connection	cable
Cable quality	5.2 mm, LifYY, PVC, 2 m
Cable cross section	3 x 0.34 mm²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multicoil system, *uprox*®+ sensors have distinct advantages over conventional sensors. They detect all metals at the same large switching distance and are resistant to magnetic fields.

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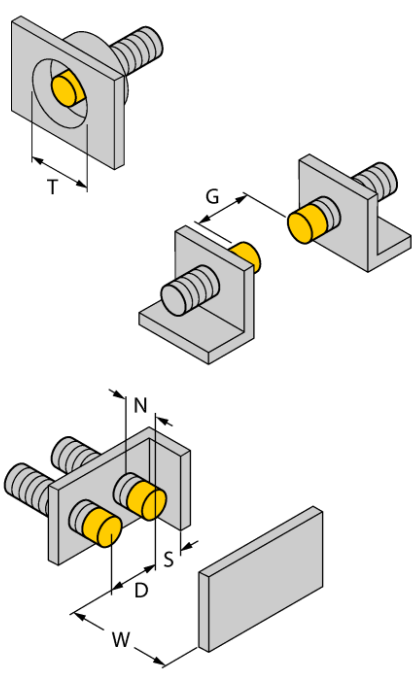
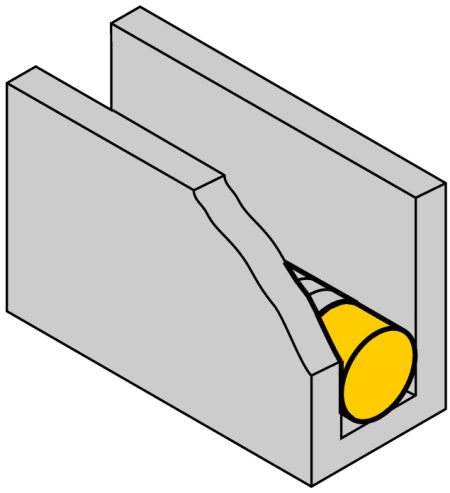
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	0.5 x B
Distance G	6 x Sn
Distance N	2 x Sn

Diameter of the active area B	Ø 30 mm





up to 3-side flush mounting possible
1-side flush mounting: Sr = 15 mm
2-side flush mounting: Sr = 12 mm
3-side flush mounting: Sr = 11 mm

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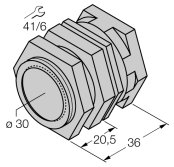
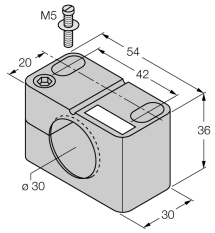
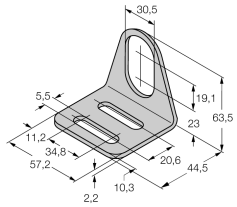
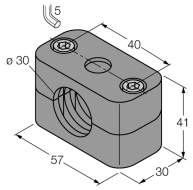
Accessories

Type code	Ident no.	Description	Dimension drawing
QM-30	6945103	Quick-mount bracket 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-mount brackets.	
BST-30B	6947216	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
MW-30	6945005	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-30	6901319	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	

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