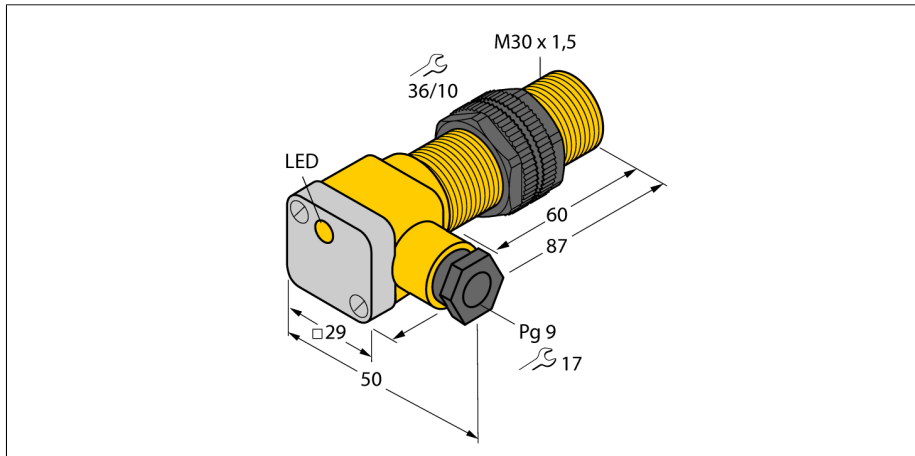
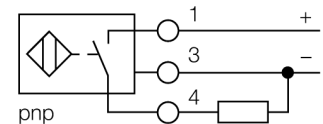




- Threaded barrel, M30 x 1.5
- Plastic, PA12-GF30
- Factor 1 for all metals
- Protection class IP68
- Magnetic field immune
- Extended temperature range
- High switching frequency
- Predamping protection through self-compensation
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Terminal chamber

Type code	NI20U-P30SK-AP6X
Ident no.	1646700
Rated operating distance Sn	20 mm
Mounting condition	non-flush, partially embeddable
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Repeatability	$\leq 2\%$ of full scale
Temperaturdrift	10 %
	$\leq \pm 20\%$, $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented ferrite-less 3-coil system, uprox® factor 1 sensors have distinct advantages compared to conventional sensors. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

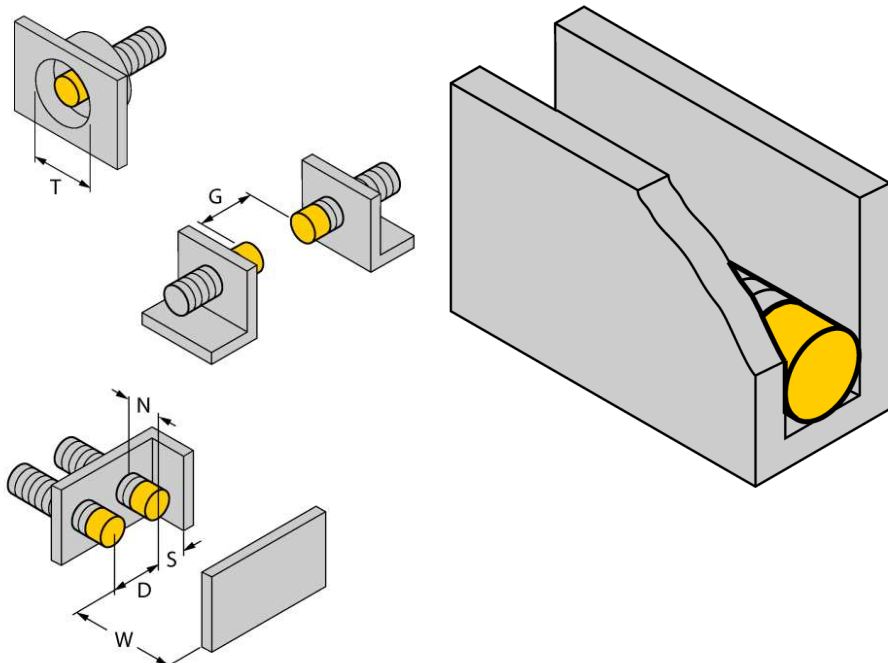
Operating voltage	10...30VDC
Residual ripple	$\leq 10\%$ U _{ss}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	IP68
Switching frequency	1.5 kHz

Design	threaded barrel, M30 x 1.5
Dimensions	87 mm
Housing material	Plastic, PA
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, plastic, PA12-GF20
Material active face	Plastic, PA
Max. tightening torque housing nut	5 Nm
Connection	Terminal chamber
Clamping ability	≤ 2.5 mm ²
Cable external diameter	4.5...8mm
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	● yellow
Included in scope of supply	cable gland; 2x plastic seals

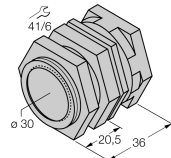
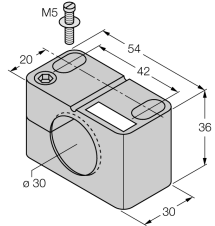
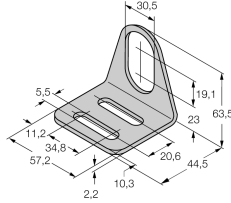
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	0.5 x B
Distance G	6 x Sn
Distance N	2 x Sn

Diameter of the active area B	Ø 30 mm
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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.	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	