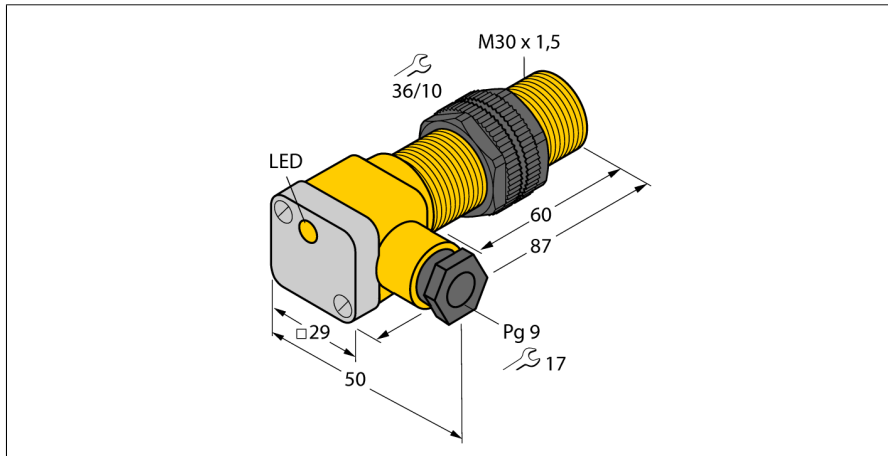


# Inductive sensor

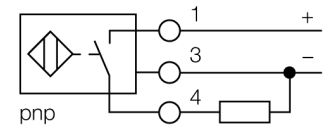
## NI20U-P30SK-AP6X



- 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
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Terminal chamber

<b>Type designation</b>	NI20U-P30SK-AP6X
Ident-No.	1646700
<b>Rated switching distance <math>S_n</math></b>	20 mm
Mounting conditions	Non-flush, partially embeddable
Secured operating distance	$\leq (0,81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	$\leq \pm 20\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Ambient temperature	3...15 °C
<b>Operating voltage</b>	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ Cyclic
Voltage drop at $I_0$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Protection class	IP68
Switching frequency	1.5 kHz
<b>Design</b>	Threaded barrel, M30 x 1.5
Dimensions	87 mm
Housing material	Plastic, PA12-GF30
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, plastic, PA12-GF20
Active area material	Plastic, PA12-GF30
Max. tightening torque housing nut	5 Nm
Electrical connection	Terminal chamber
Clamping ability	$\leq 2.5$ mm <sup>2</sup>
Cable external diameter	4.5...8 mm
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
Packaging unit	1
<b>Switching state</b>	LED, Yellow
Included in delivery	cable gland; 2x plastic seals

### Wiring Diagram

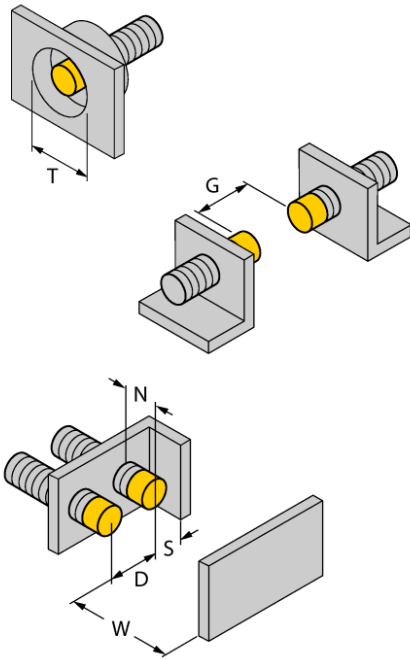


### Functional principle

Inductive sensors detect metal objects contactless and wear-free. *uprox*® Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

# Inductive sensor NI20U-P30SK-AP6X

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
<hr/>	
Diameter 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:  $S_r = 11 \text{ mm}$

**Inductive sensor  
NI20U-P30SK-AP6X**



**Accessories**

Type code	Ident-No.	Description	
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	