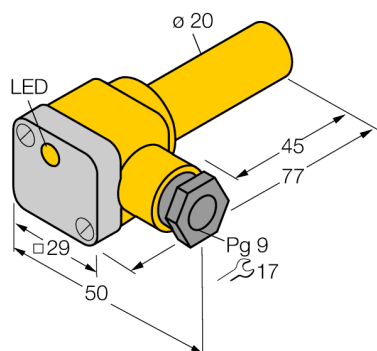
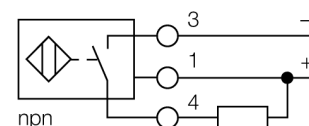




- Smooth barrel, Ø 20 mm
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Protection class IP68
- Magnetic field immune
- Extended temperature range
- High switching frequency
- Predamping protection through self-compensation
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Terminal chamber

Wiring diagram



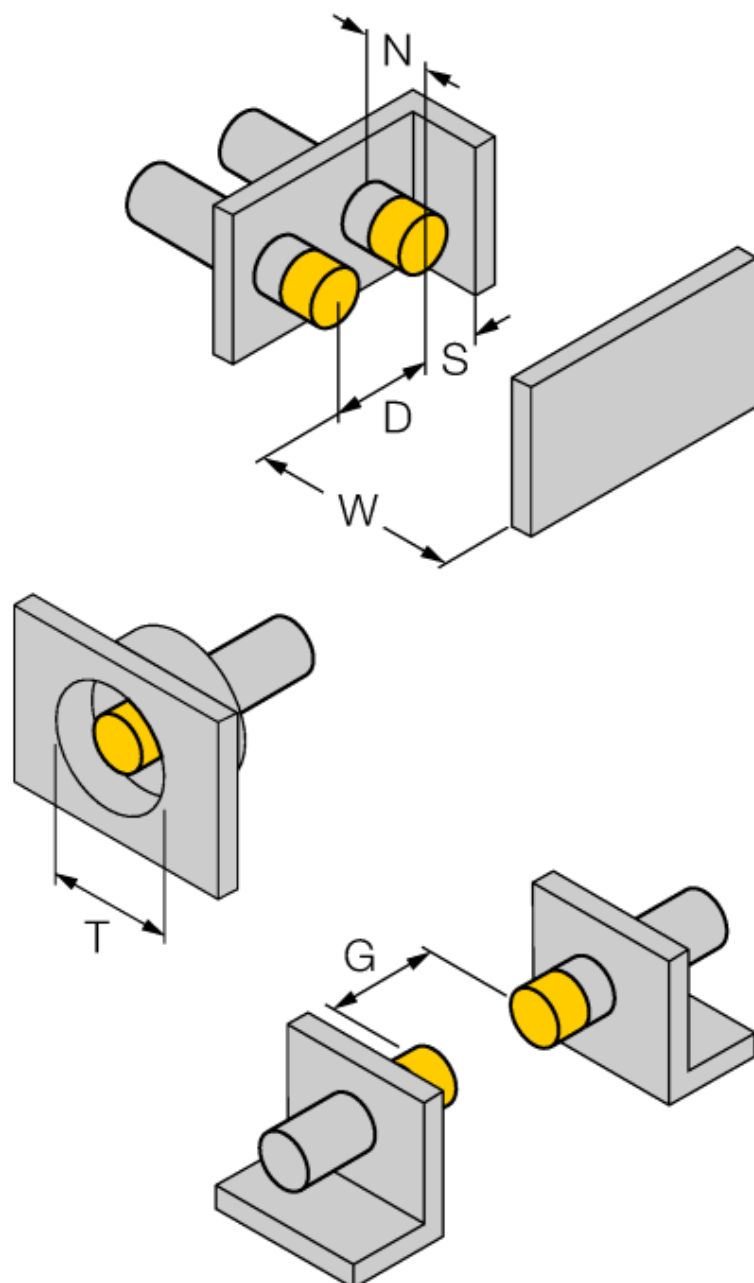
Functional principle

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.

Type code	NI12U-K20SK-AN6X
Ident no.	1645331
Rated operating distance S_n	12 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 %
Hysteresis	$\leq \pm 20\%$, $\leq -25^\circ\text{C}$ v $\geq +70^\circ\text{C}$
Ambient temperature	3...15 %
	-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_0	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, NPN
Protection class	□
Switching frequency	1 kHz
Design	smooth barrel, 20 mm
Dimensions	77 mm
Housing material	Plastic, PBT
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, plastic, PA12-GF20
Material active face	Plastic, PBT
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	BS20; cable gland; 2x plastic seals

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 20 mm



Accessories

Type code	Ident no.	Description	Dimension drawing
BS 20	69464	Fixing clamp; material mounting block: PBT	