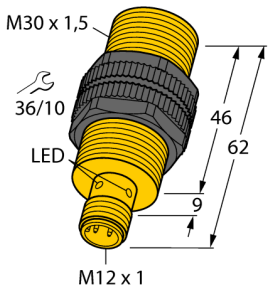
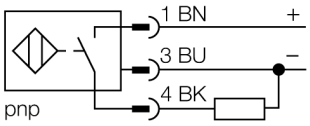
Inductive sensor
With extended temperature range
NI20U-S30-AP6X-H1141/S97



- **Threaded barrel, M30 x 1.5**
- **Plastic, PBT-GF30**
- **Factor 1 for all metals**
- **Protection class IP68**
- **Resistant to magnetic fields**
- **Temperatures up to -40 °C**
- **DC 3-wire, 10…30 VDC**
- **NO contact, PNP output**
- **M12 x 1 male connector**

Wiring diagram



Type code	NI20U-S30-AP6X-H1141/S97
Ident no.	1646601
Rated switching distance Sn	20 mm
Mounting conditions	non-flush
Assured switching distance	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
	≤ ± 20 %, ≥ +70 °C
Hysteresis	3…15 %
Ambient temperature	-40…+85 °C
Operating voltage	10…30VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 20 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, PNP
Protective insulation	⧈
Switching frequency	1.5 kHz
Construction	threaded barrel, M30 x 1.5
Dimensions	62 mm
Housing material	plastic, PBT
Material active area	plastic, PA
Max. tightening torque housing nut	5 Nm
Connection	male, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
IP Rating	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

Functional principle

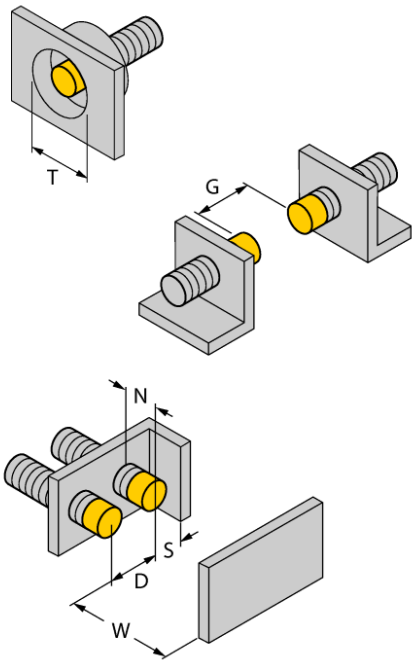
Inductive sensors detect metal objects contactless and wear-free. *uprox*® Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Edition • 2015-07-27T19:12:23+02:00

Inductive sensor
With extended temperature range
NI20U-S30-AP6X-H1141/S97

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

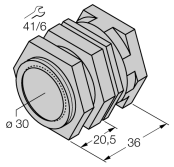
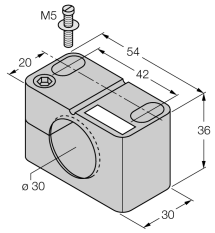
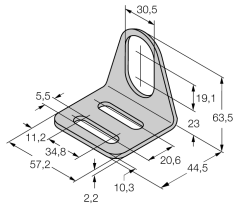
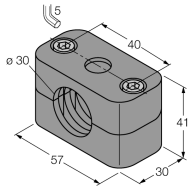
Diameter of the active area B	Ø 30 mm



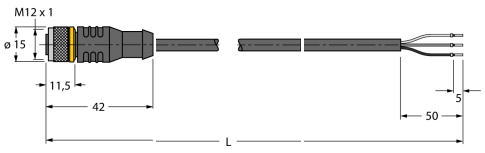
Edition • 2015-07-27T19:12:23+02:00

Inductive sensor
With extended temperature range
NI20U-S30-AP6X-H1141/S97

Accessories

Type code	Ident no.	Description	Design
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	

Wiring accessories

Type code	Ident no.	Description	Design
RKC4T-2/TEL	6625010	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	

Edition • 2015-07-27T19:12:23+02:00