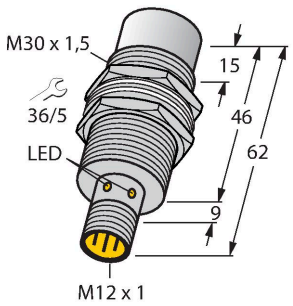
NI20U-MT30-AN6X-H1141
Inductive Sensor



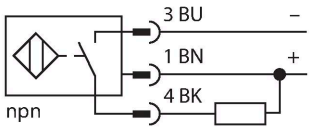
Technical data

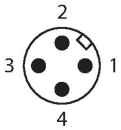
Type	NI20U-MT30-AN6X-H1141
ID	1646250
General data	
Rated switching distance	20 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3…15 %
Electrical data	
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current	25 mA
Residual current	≤ 0.1 mA
Isolation test 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
DC field stability	300 mT
AC field stability	300 mT_{ss}
Insulation class	⧈
Switching frequency	1 kHz

Features

- Threaded barrel, M30 x 1.5
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10…30 VDC
- NO contact, NPN output
- M12 x 1 male connector

Wiring diagram





Functional principle

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

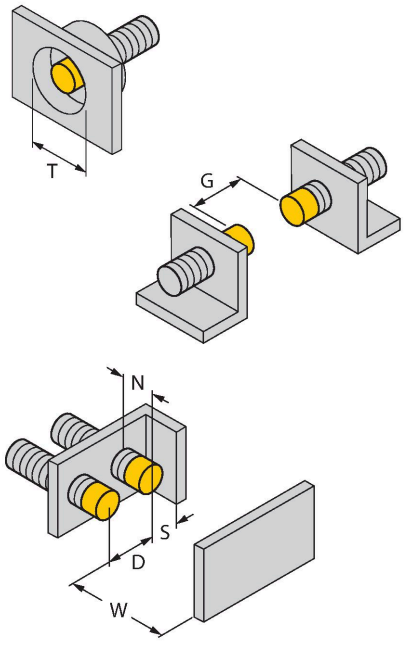
NI20U-MT30-AN6X-H1141| 01-12-2022 09-24 | Technical modifications reserved

Technical data

Mechanical data	
Design	Threaded barrel, M30 × 1.5
Dimensions	62 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PBT, PTFE-coated
Max. tightening torque of housing nut	75 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-30…+85 °C
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

Mounting instructions

Mounting instructions/Description

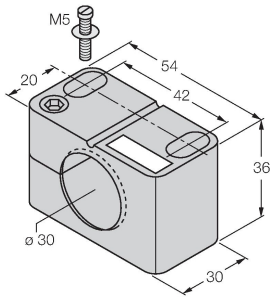


Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	0.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 30 mm

NI20U-MT30-AN6X-H1141| 01-12-2022 09-24 | Technical modifications reserved

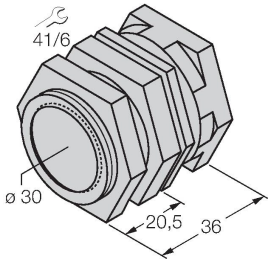
Accessories

BST-30B	6947216



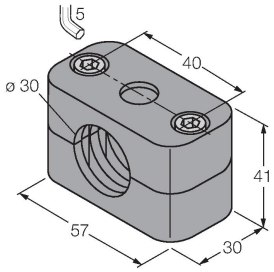
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

QMT-30	6945105



Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

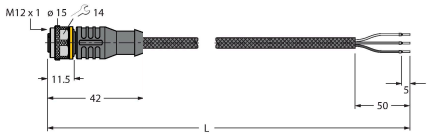
BSS-30	6901319



Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

Accessories

Dimension drawing	Type	ID	
	RKC4T-2/TXL1001	6630249	Connection cable, M12 connector, female, straight, 3-pin, cable length: 2 m, protective sheathing material: Aramid fibers, yellow; Temperature peak: 200 °C; other cable lengths and qualities available, see www.turck.com



NI20U-MT30-AN6X-H1141| 01-12-2022 09-24 | Technical modifications reserved