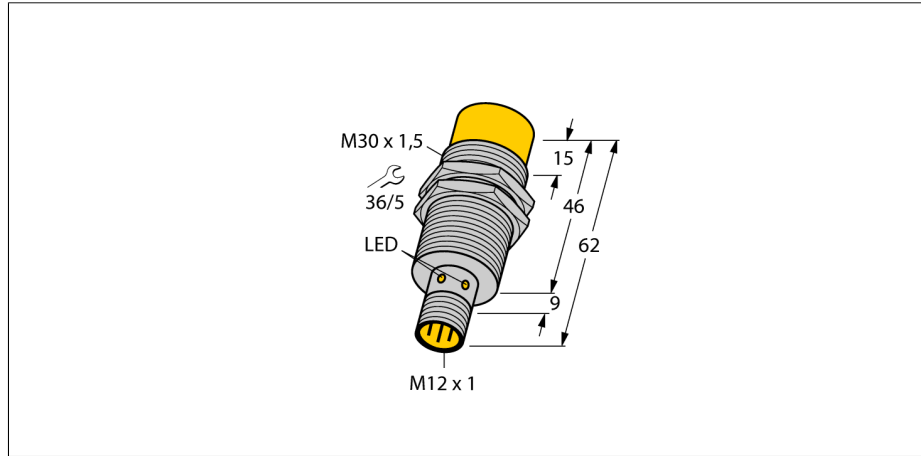
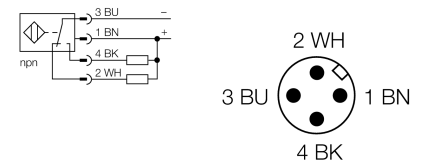


**Inductive sensor
with extended switching distance
NI20-M30-VN6X-H1141**



- Threaded barrel, M30 x 1.5
- Chrome-plated brass
- Large detection range
- DC 4-wire, 10...30 VDC
- Changeover contact, NPN output
- M12 x 1 connector

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Type code	NI20-M30-VN6X-H1141
Ident no.	4590614
Rated operating distance Sn	20 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30VDC
Residual ripple	≤ 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 _e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, changover contact, NPN
Switching frequency	0.5 kHz
Design	threaded barrel, M30 x 1.5
Dimensions	62 mm
Housing material	Metal, CuZn, chrome-plated
Material active face	Plastic, PA
Max. tightening torque housing nut	75 Nm
Connection	male, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	• yellow

**Inductive sensor
with extended switching distance
NI20-M30-VN6X-H1141**

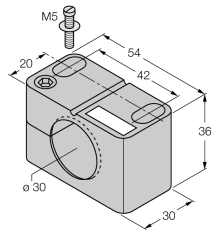
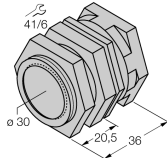
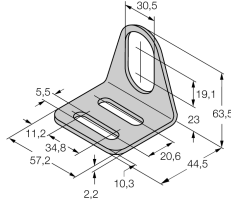
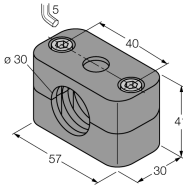
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	20 mm

Diameter of the active area B \varnothing 30 mm



**Inductive sensor
with extended switching distance
NI20-M30-VN6X-H1141**

Accessories

Type code	Ident no.	Description	Dimension drawing
BST-30B	6947216	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
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.	
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	Dimension drawing
RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	