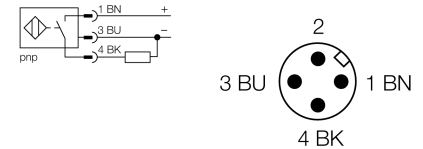


- Threaded barrel, M18 x 1
- Stainless steel, 1.4301
- Factor 1 for all metals
- Protection class IP68
- Magnetic field immune
- Extended temperature range
- High switching frequency
- Predamping protection through self-compensation
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 connector

Type code	NI12U-EM18-AP6X-H1141
Ident no.	1645340
Rated operating distance Sn	12 mm
Mounting condition	non-flush, partially embeddable
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
	≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-30...+85 °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 ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	☐
Switching frequency	2 kHz
Design	threaded barrel, M18 x 1
Dimensions	52 mm
Housing material	Metal, V2A (1.4301)
Material active face	Plastic, PBT
Max. tightening torque housing nut	25 Nm
Connection	male, M12 x 1
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

Wiring diagram



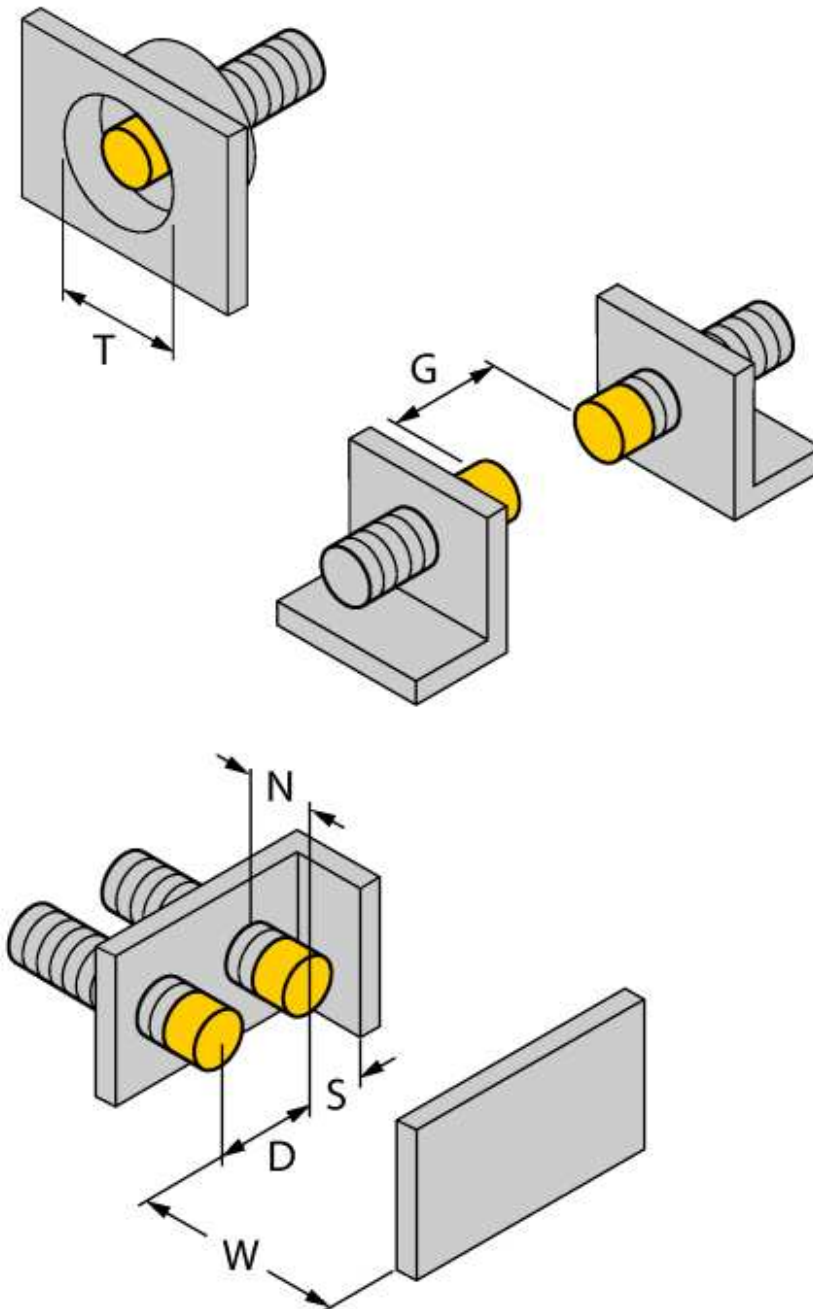
Functional principle

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.

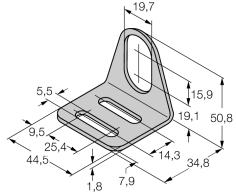
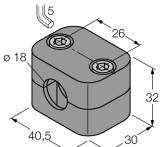
**Inductive sensor
NI12U-EM18-AP6X-H1141**

Distance D	3 x B
Distance W	3 x Sn
Distance T	65 mm
Distance S	0.5 x B
Distance G	6 x Sn
Distance N	2 x Sn

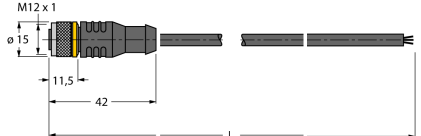
Diameter of the active area B \varnothing 18 mm



Accessories

Type code	Ident no.	Description	Dimension drawing
MW-18	6945004	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	 <p>Technical drawing of a stainless steel mounting bracket. Dimensions include: 19.7 (width of top loop), 15.9 (height of top loop), 50.8 (total height), 19.1 (width of base), 34.8 (width of base), 14.3 (width of base), 7.9 (width of base), 1.8 (thickness of base), 44.5 (width of base), 25.4 (width of base), 9.5 (width of base), and 5.5 (width of base).</p>
BSS-18	6901320	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	 <p>Technical drawing of a polypropylene mounting bracket. Dimensions include: 5 (height of top loop), 26 (width of top loop), 32 (total height), 40.5 (width of base), 30 (width of base), and 18 (diameter of hole).</p>

Wiring accessories

Type code	Ident no.	Description	Dimension drawing
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	 <p>Technical drawing of a connection cable. Dimensions include: M12 x 1 (thread size), 15 (diameter of connector), 11.5 (length of connector), 42 (length of cable), and L (total length).</p>