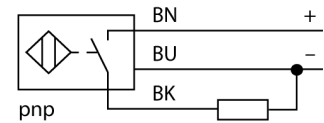


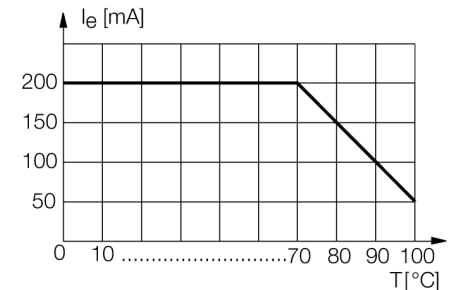
- Threaded barrel, M12 x 1
- Stainless steel, 1.4404
- Front cap made of liquid crystal polymer Vectra
- Factor 1 for all metals
- Magnetic field immune
- For temperatures of - 40 °C to +100 °C
- High protection class IP69K, for harsh environments
- Special double-lip seal
- Protection against all common acid and alkaline cleaning agents
- Laser engraved label, permanently legible
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram



Functional principle

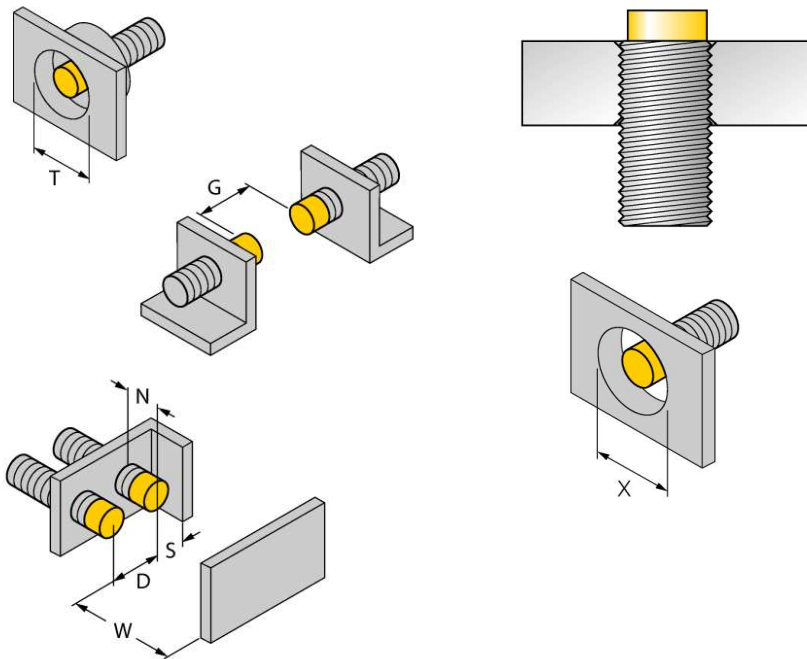
The inductive sensors for the food industry are absolutely watertight and resistant to cleaning agents and disinfectants. The requirements of the protection classes IP68 and IP69K are well exceeded by our uprox®+ sensors. The sensors are well protected by an LCP front cap and a stainless steel housing.



Type code	NI10U-EM12WD-AP6X
Ident no.	1634813
Rated operating distance S_n	10 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x S _n) mm
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
Hysteresis	≤ ± 20 %, ≤ -25 °C , ≥ +70 °C
Ambient temperature	3...15 % -40...+100 °C
Operating voltage	10...30VDC
Residual ripple	≤ 10 % U _s
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	3-wire, NO contact, PNP
Protection class	☐
Switching frequency	2 kHz
Design	threaded barrel, M12 x 1
Dimensions	52 mm
Housing material	Metal, V4A (1.4404)
Material active face	Plastic, LCP
End cap	Plastic, PP, transparent
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque housing nut	10 Nm
Connection	cable
Cable quality	5.2 mm, white, D12YSL9Y-OB, PP, 2 m halogen-free
Cable cross section	3 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	● yellow

Distance D	48 mm
Distance W	30 mm
Distance T	36 mm
Distance S	18 mm
Distance G	60 mm
Distance N	16 mm

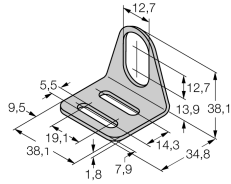
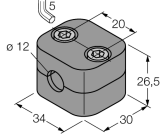
Diameter of the active area B Ø 12 mm



All recessed mountable *uprox+* threaded barrel sensors can be embedded to the upper edge of the thread. Thus safe operation is guaranteed with a reduced switching distance of max. 20 %.

When installed in an aperture plate a distance of X = 50 mm must be observed.

Accessories

Type code	Ident no.	Description	Dimension drawing
MW-12	6945003	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	 <p>Technical drawing of a stainless steel mounting bracket (MW-12) for threaded barrel devices. The drawing shows a perspective view with the following dimensions: 12.7 (width of the top flange), 12.7 (height of the top flange), 13.9 (width of the main body), 38.1 (total width), 9.5 (width of the mounting hole), 5.5 (width of the mounting hole), 13.1 (width of the mounting hole), 38.1 (total width), 1.8 (thickness of the main body), 7.9 (width of the mounting hole), 14.3 (width of the mounting hole), and 34.8 (width of the mounting hole).</p>
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	 <p>Technical drawing of a polypropylene mounting bracket (BSS-12) for smooth and threaded barrel devices. The drawing shows a perspective view with the following dimensions: 5 (height of the top flange), 20 (width of the top flange), 26.5 (height of the main body), 34 (width of the main body), 30 (width of the main body), and 12 (diameter of the mounting hole).</p>