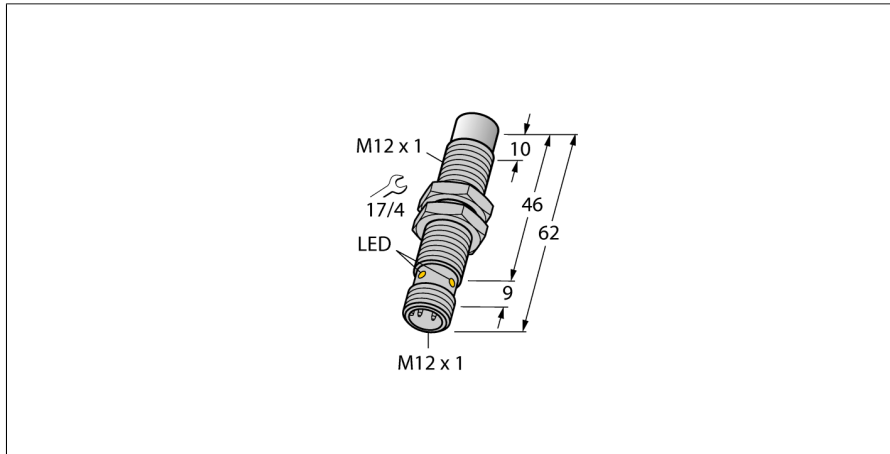


# Inductive Sensor For the food industry NI10U-EM12EWD-VP44X-H1141



- Threaded barrel, M12 x 1
- Stainless steel, 1.4404
- Front cap made of liquid crystal polymer
- Factor 1 for all metals
- Resistant to magnetic fields
- For temperatures of -40 °C...+100 °C
- High protection class IP69K for harsh environments
- Special double-lip seal
- Protection against all common acidic and alkaline cleaning agents
- Laser engraved label, permanently legible
- DC 4-wire, 10...55 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

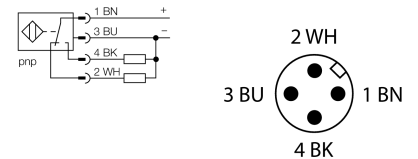
Type	NI10U-EM12EWD-VP44X-H1141
ID	1634896

Remark to product: Product discontinued.  
Please use the alternative product 100000634 with an operating voltage of 10...30 VDC.

General data	
Rated switching distance $S_n$	10 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
	$\leq \pm 20\%$ , $\leq -25\text{ °C}$ , $\geq +70\text{ °C}$
Hysteresis	3...15 %

Electrical data	
Operating voltage $U_o$	10...55 VDC
Ripple $U_{rs}$	$\leq 10\%$ $U_{Bmax}$
DC rated operating current $I_o$	$\leq 200$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, PNP
DC field stability	300 mT
AC field stability	300 mT <sub>SS</sub>
Insulation class	□
Switching frequency	1 kHz

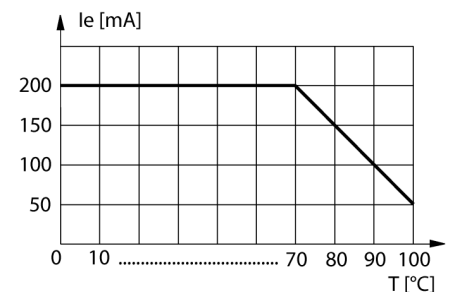
### Wiring Diagram



### Functional principle

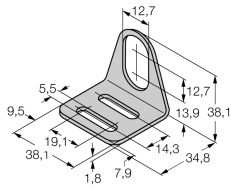
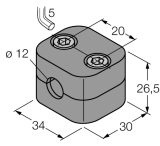
The inductive sensors for the food industry are absolutely tight and resistant to cleaning agents and disinfectants. The requirements of the protection classes IP68 and IP69K are well exceeded by our uprox®+ sensors. The sensors are entirely protected by the LCP front cap and the stainless steel housing.

### Derating Curve



Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	Stainless steel, 1.4404 (AISI 316L)
Active area material	Plastic, LCP
Connector housing	plastic, PP
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-40...+100 °C
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	
	LED, Yellow

## Accessories

Type code	Ident no.		Dimension drawing
MW-12	6945003	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	 <p>Technical drawing of a mounting bracket for threaded barrel sensors. The drawing shows a perspective view of a U-shaped bracket with a central slot. Dimensions are provided in millimeters: 12.7 (width of the top flange), 12.7 (height of the top flange), 13.9 (width of the central slot), 38.1 (total width), 34.8 (width of the bottom flange), 7.9 (height of the bottom flange), 1.8 (thickness of the bottom flange), 19.1 (width of the central slot at the bottom), 5.5 (width of the top flange at the ends), 9.5 (height of the top flange at the ends), and 14.3 (width of the bottom flange at the ends).</p>
BSS-12	6901321	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	 <p>Technical drawing of a cylindrical mounting clamp for smooth and threaded barrel sensors. The drawing shows a perspective view of a cylinder with a central hole. Dimensions are provided in millimeters: 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 bottom flange), and 12 (diameter of the central hole).</p>