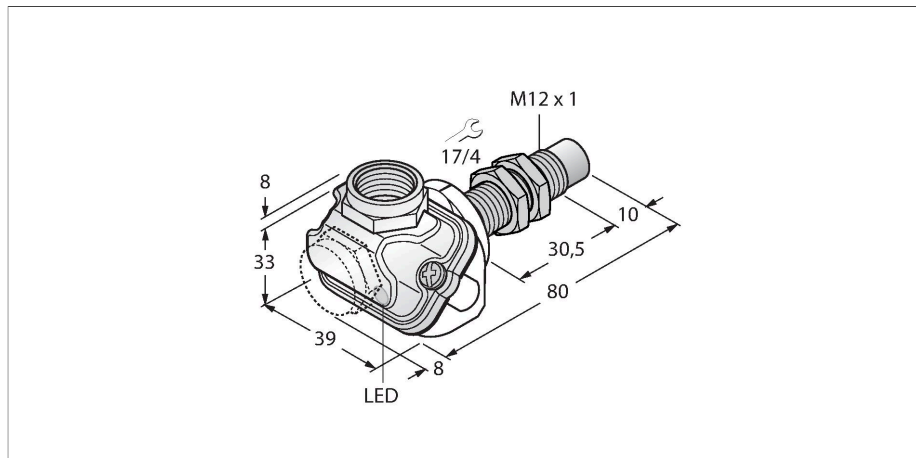


# NI10U-EM12WDTC-AP6X

## Inductive Sensor – For the food industry



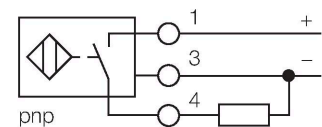
### Features

- 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
- Suitable for applications in the food industry
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Terminal chamber

### Technical data

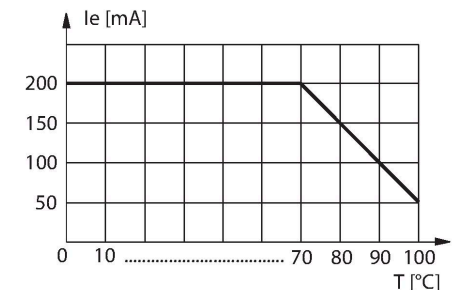
Type	NI10U-EM12WDTC-AP6X
ID	1634761
<b>General data</b>	
Rated switching distance	10 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$ $\leq \pm 20\%$ , $\leq -25\text{ °C}$ , $\geq +70\text{ °C}$
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage $U_b$	10...30 VDC
Ripple $U_{ss}$	$\leq 10\%$ $U_{Bmax}$
DC rated operating current $I_o$	$\leq 200$ mA
No-load current	$\leq 25$ 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	3-wire, NO contact, PNP
DC field stability	300 mT
AC field stability	300 mT <sub>ss</sub>
Insulation class	□
Switching frequency	1 kHz
<b>Mechanical data</b>	
Design	Threaded barrel, M12 x 1

### Wiring diagram



### Functional principle

uprox®+ sensors from TURCK are the perfect solution for dairies, breweries, industrial bakeries, frozen food, packaging and filling applications. They are absolutely tight and resistant to cleaning agents and disinfectants and well exceed the requirements of the protection classes IP68 and IP69K thanks to the LCP front cap and the stainless steel housing.

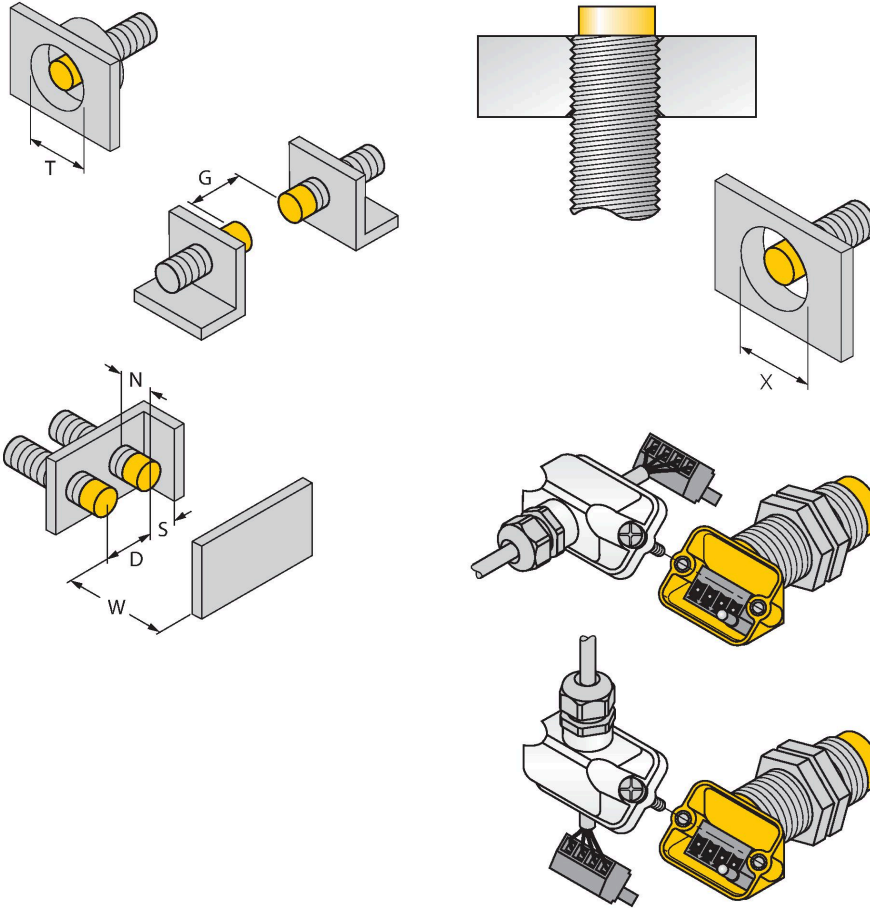


## Technical data

Dimensions	80 mm
Housing material	Stainless steel, 1.4404 (AISI 316L)
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, LCP-GF30
Active area material	Plastic, LCP
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque of housing nut	10 Nm
Electrical connection	Terminal chamber, Removable cage clamp terminals
	suited for M16 x 1.5 cable glands
Clamping ability	≤ 1.5 mm <sup>2</sup>
<b>Environmental conditions</b>	
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

## Mounting instructions

### Mounting instructions/Description



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 active area B	Ø 12 mm

All non-flush mountable aprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. 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.

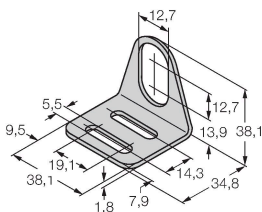
The innovative terminal chamber concept enables simple and comfortable connection of the sensor. Straight as well as angled cable outlets are available and the removable terminal strip guarantees easy wiring.

## Accessories

MW12

6945003

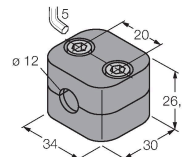
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-12

6901321

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



Accessories

Dimension drawing	Type	ID	
	M16X1.5 PVDF CABLE GLAND	1634759	M16 × 1.5 cable gland, material: PVDF; with Viton O-ring; IP69K

