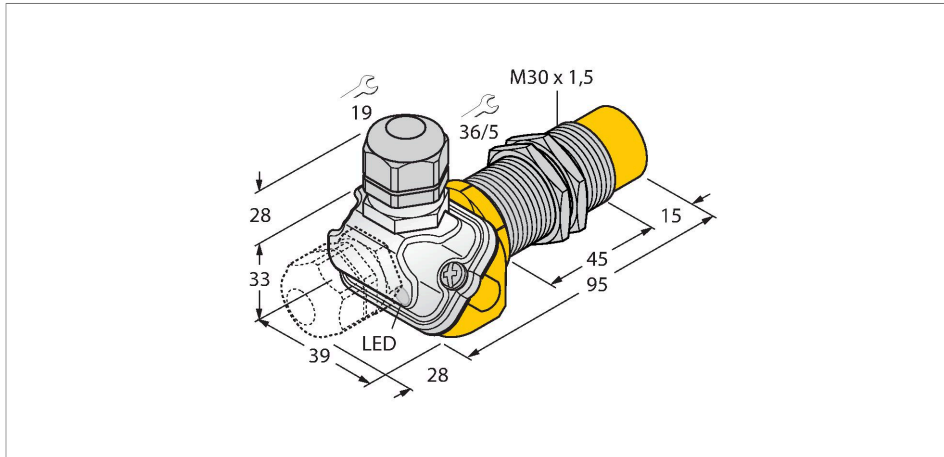


# NI30U-EM30WDTC-AP6X

## Inductive Sensor – For the Food Industry



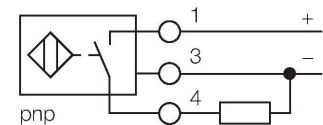
### Features

- Threaded barrel, M30 x 1.5
- 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

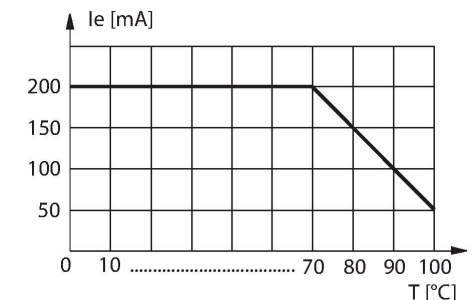
|   |   |
|---|---|
| Type                                      | NI30U-EM30WDTC-AP6X   |
| Ident. no.                                | 1634765   |
| Rated switching distance                  | 30 mm   |
| Mounting conditions                       | Non-flush   |
| Secured operating distance                | $\leq (0.81 \times S_n)$ 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 %  |
| Ambient temperature                       | -40...+100 °C   |
| Operating voltage                         | 10...30 VDC   |
| Residual ripple                           | $\leq 10\% U_s$   |
| DC rated operational current              | $\leq 200\text{ mA}$  |
| No-load current                           | $\leq 15\text{ mA}$   |
| Residual current                          | $\leq 0.1\text{ mA}$  |
| Isolation test voltage                    | $\leq 0.5\text{ kV}$  |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at $I_e$                     | $\leq 1.8\text{ V}$   |
| Wire breakage/Reverse polarity protection | yes / Complete  |
| Output function                           | 3-wire, NO contact, PNP                                       |
| Insulation class                          | □   |
| Switching frequency                       | 0.5 kHz   |
| Design                                    | Threaded barrel, M30 x 1.5                                    |
| Dimensions                                | 95 mm   |

### Wiring diagram



### Functional principle

*uprox*<sup>®</sup> 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.

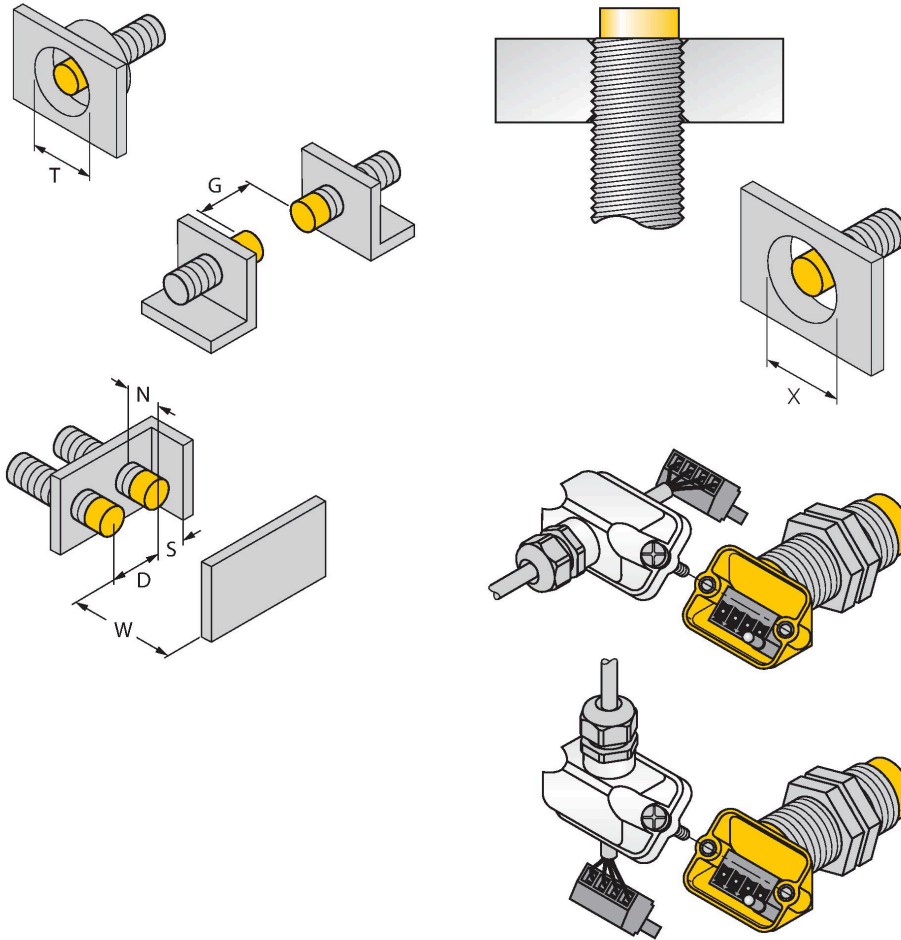


## Technical data

|                                    |   |
|------------------------------------|---|
| Housing material                   | Stainless steel, V4A (1.4404)   |
| Terminal chamber cover material    | plastic, Ultem  |
| Terminal chamber housing material  | plastic, LCP-GF30   |
| Active area material               | Plastic, LCP  |
| Admissible pressure on front cap   | ≤ 10 bar  |
| Max. tightening torque housing nut | 75 Nm   |
| Electrical connection              | Terminal chamber, Removable cage clamp terminals<br>suited for M16 x 1.5 cable glands |
| Clamping ability                   | ≤ 1.5 mm <sup>2</sup>   |
| 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             | 135 mm  |
| Distance W             | 90 mm   |
| Distance T             | 90 mm   |
| Distance S             | 45 mm   |
| Distance G             | 180 mm  |
| Distance N             | 30 mm   |
| Diameter active area B | Ø 30 mm |

All non-flush mountable uprox®+ 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 %.

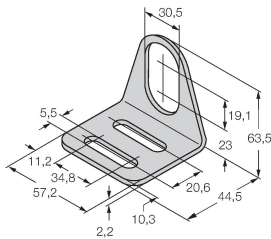
When installed in an aperture plate a clearance of X = 50 mm must be observed.

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

MW30

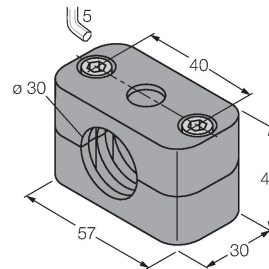
6945005



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

BSS-30

6901319



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