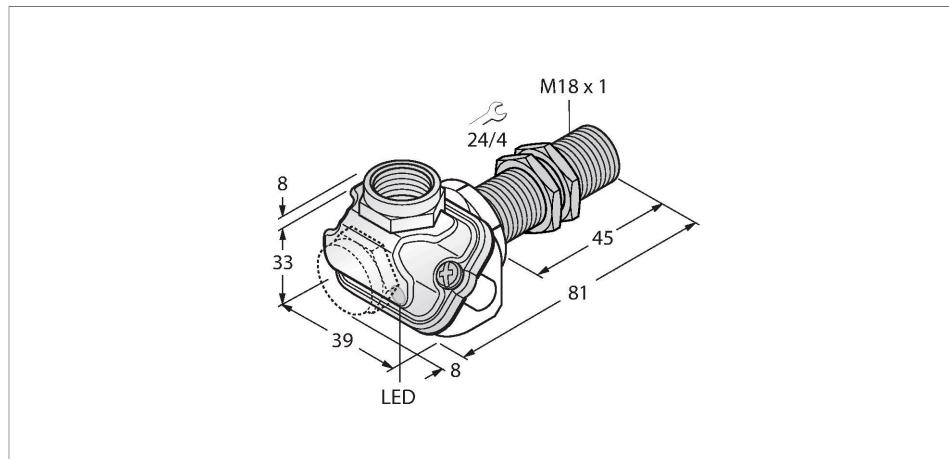


BI8U-EM18WDTC-AP6X

Inductive sensor – For the food industry



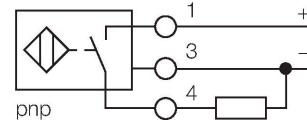
Technical data

Type	BI8U-EM18WDTC-AP6X
Ident. no.	1634762
Rated switching distance	8 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times Sn)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
	$\leq \pm 20\%$, $\leq -25\text{ }^\circ\text{C}$, $\geq +70\text{ }^\circ\text{C}$
Hysteresis	3...15 %
Ambient temperature	-40...+100 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
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	1.5 kHz
Design	Threaded barrel, M18 x 1
Dimensions	81 mm

Features

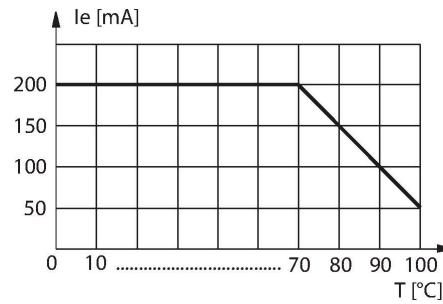
- Threaded barrel, M18 x 1
- Stainless steel, 1.4404
- Front cap made of liquid crystal polymer
- Factor 1 for all metals
- Resistant to magnetic fields
- Temperatures -40 °C ... +100 °C
- High protection class IP69K, for harsh environments
- Special double-lip seal
- Protection against all common acid and alkaline cleaning agents
- For the food industry
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Terminal chamber

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.

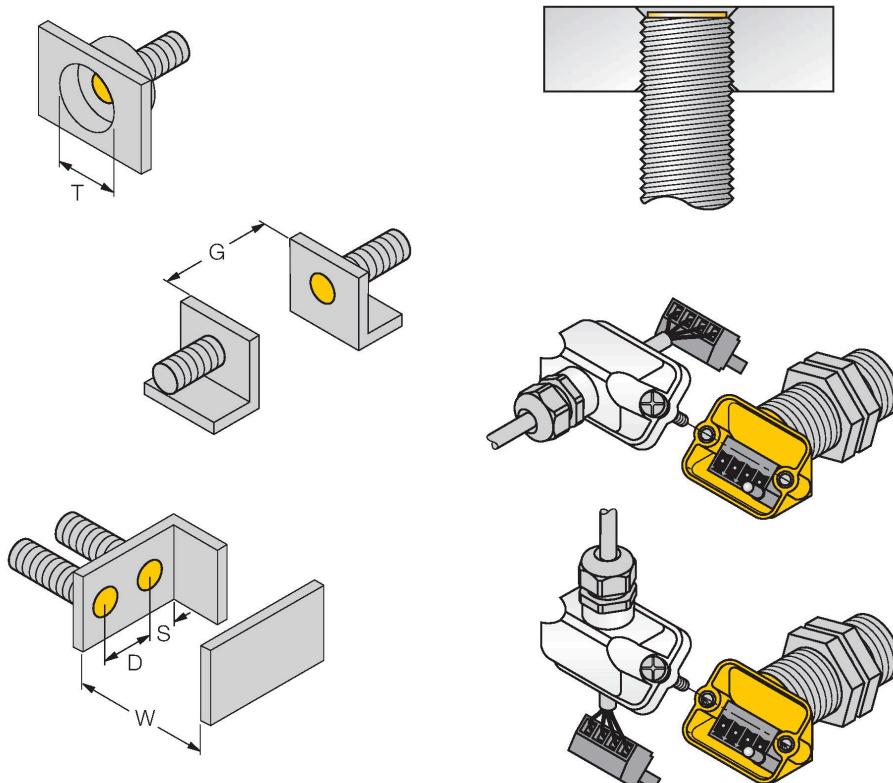


Technical data

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	≤ 15 bar
Max. tightening torque housing nut	25 Nm
Electrical connection	Terminal chamber, Removable cage clamp terminals
	suited for M16 x 1.5 cable glands
Clamping ability	≤ 1.5 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	LED, Yellow

Mounting instructions

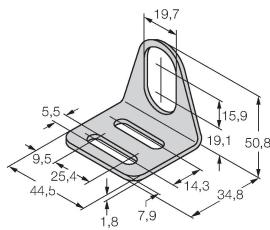
Mounting instructions/Description



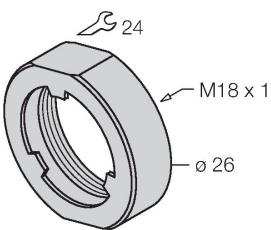
Distance D	36 mm
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area	Ø 18 mm
B	

All flush mountable *uprox*[®] + threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn. The innovative terminal chamber concept enables easy and simple connection of the sensor. Straight as well as angled cable outlets are available and the removable terminal strip guarantees easy wiring.

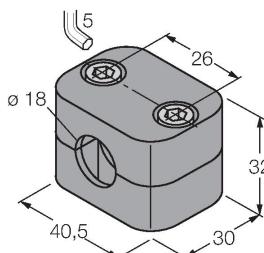
Accessories

MW18**6945004**

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

PN-M18**6905310**

Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)

BSS-18**6901320**

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