BI8U-EM18MWD-VP6X-H1141
Inductive Sensor –   For the Food Industry

M18 x 1
24/4
LED
46
61,5
9
M12 x 1

Technical data

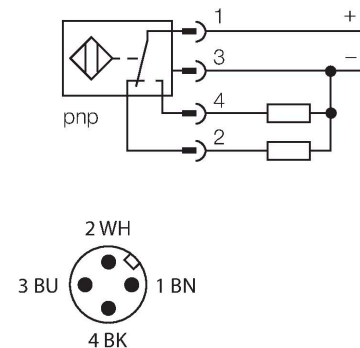| Type	BI8U-EM18MWD-VP6X-H1141
Ident. no.	100000635
Rated switching distance	8 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
	≤ ± 20 %, ≤ -25 ℃ , ≥ +70 ℃
Hysteresis	3…15 %
Ambient temperature	-40…+100 ℃
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current	≤ 20 mA
Residual current	≤ 0.1 mA
Isolation test 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	4-wire, Complementary contact, PNP
Switching frequency	1.5 kHz
Design	Threaded barrel, M18 × 1
Dimensions	61.5 mm
Housing material	Stainless steel, V4A (1.4404)

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
- For temperatures of -40 ℃…+100 ℃
- 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…30 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

Wiring diagram

pnp

1   +
3   –
4
2

2 WH
3 BU   1 BN
4 BK

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.


Ie [mA]

200
150
100
50

0   10 .... 70 80 90 100
T [℃]
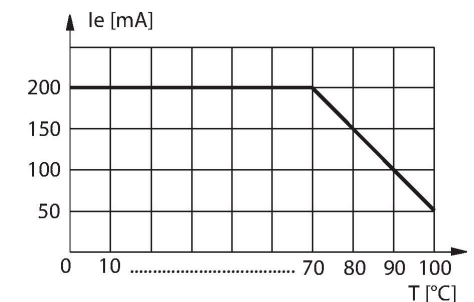
Technical data

Active area material	Plastic, LCP
Connector housing	plastic, PP
Admissible pressure on front cap	≤ 15 bar
Max. tightening torque housing nut	25 Nm
Electrical connection	Connector, M12 × 1
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

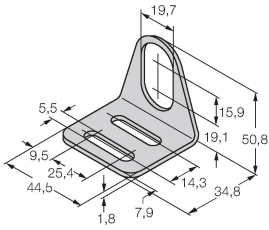## Mounting instructions

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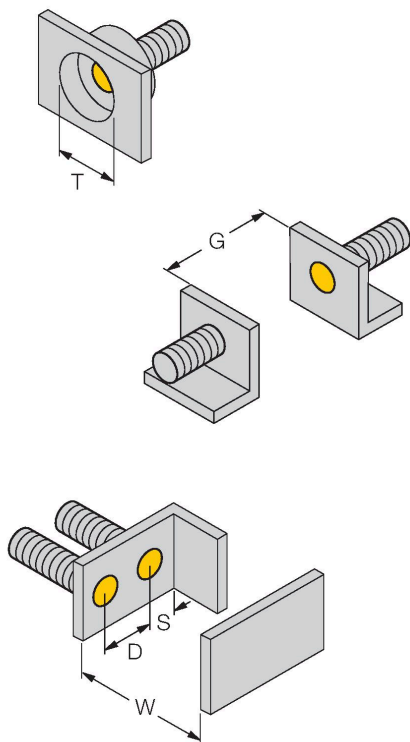
Distance D	36 mm
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 18 mm

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.
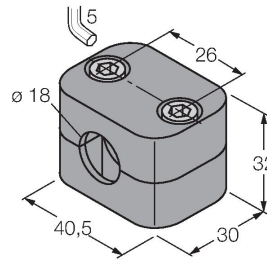
Accessories

MW18   6945004

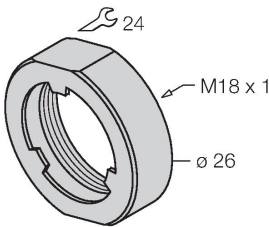Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-18   6901320

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

PN-M18   6905310

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

Wiring accessories

Dimension drawing	Type	Ident. no.	
	RKH4.4-2/TFE	6934473	Connection cable, M12 female, straight, 4-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, gray, temperature range -25…+80 °C; other cable lengths and designs available, see www.turck.com
	RKH4.4-2/TFG	6933086	Connection cable, M12 female, straight, 4-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray temperature range -40…+105 °C; other cable lengths and designs available, see www.turck.com