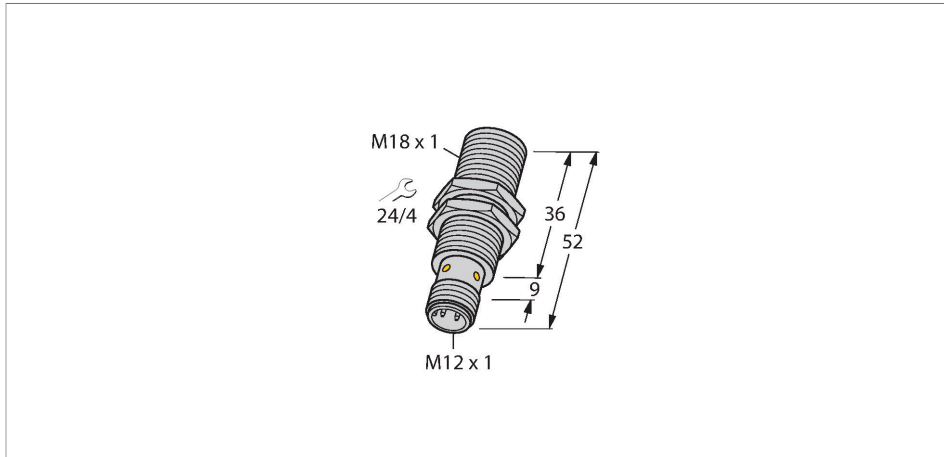


# BI8U-EM18WD-VP6X-H1141

## Inductive Sensor – For the Food Industry



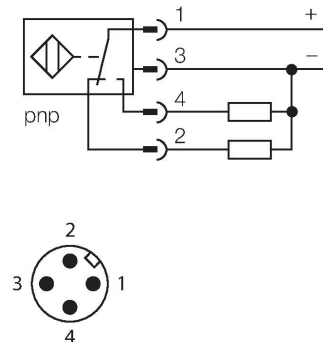
### Features

- 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 °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...30 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

### Technical data

Type	BI8U-EM18WD-VP6X-H1141
Ident. no.	1635002
Rated switching distance	8 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2$ % of full scale
Temperature drift	$\leq \pm 10$ %
	$\leq \pm 20$ %, $\leq -25$ °C , $\geq +70$ °C
Hysteresis	3...15 %
Ambient temperature	-40...+100 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10$ % $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 20$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
Insulation class	□
Switching frequency	1.5 kHz
<b>Design</b>	<b>Threaded barrel, M18 x 1</b>
Dimensions	52 mm

### Wiring diagram

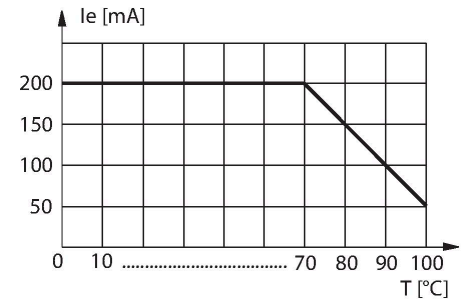


### Functional principle

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.

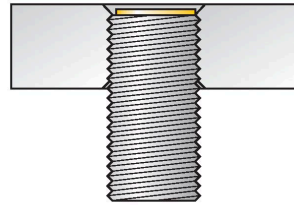
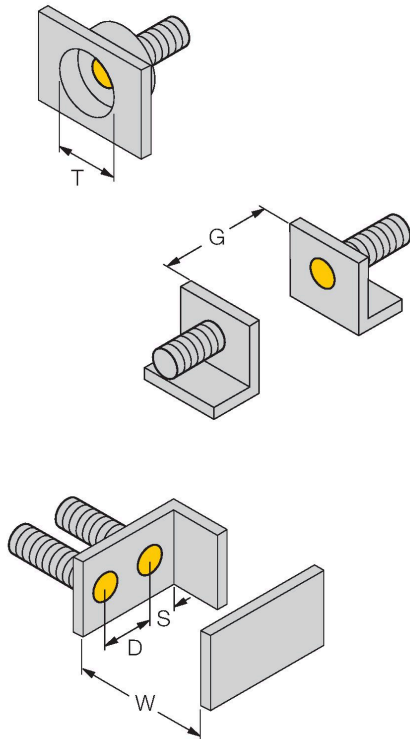
## Technical data

Housing material	Stainless steel, 1.4404 (AISI 316L)
Active area material	Plastic, LCP
Connector housing	plastic, PP
Admissible pressure on front cap	≤ 15 bar
Max. tightening torque of 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

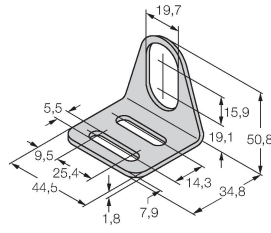


Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 18 mm

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

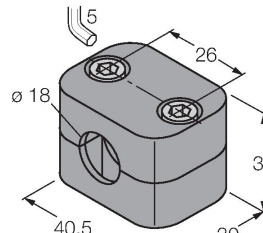
**MW-18** 6945004



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

Technical drawing showing dimensions: 19,7, 5,5, 9,5, 25,4, 44,5, 1,8, 7,9, 14,3, 34,8, 15,9, 19,1, 50,8.

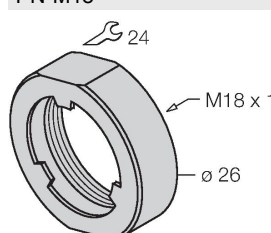
**BSS-18** 6901320



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

Technical drawing showing dimensions: 5, 26, 32, 30, 40,5, 18.

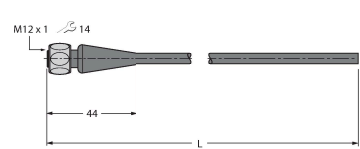
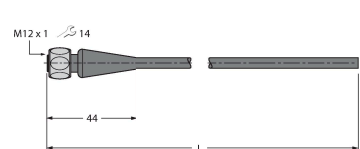
**PN-M18** 6905310



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

Technical drawing showing dimensions: 24, M18 x 1, 26.

## 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 <a href="http://www.turck.com">www.turck.com</a>
	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 <a href="http://www.turck.com">www.turck.com</a>

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