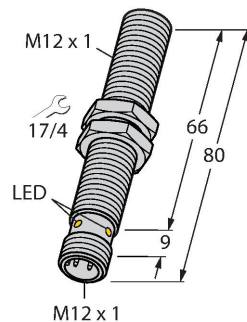


BI4U-EM12WD-VP6X-H1141 L80

Inductive Sensor – For the Food Industry



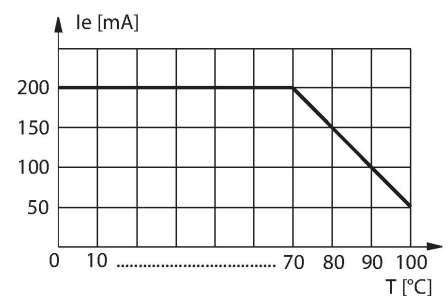
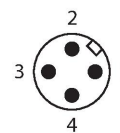
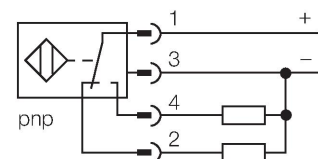
Features

- 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
- Laser engraved label, permanently legible
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

Technical data

Type	BI4U-EM12WD-VP6X-H1141 L80
ID	100000768
General data	
Rated switching distance	4 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
	$\leq \pm 20$ %, ≤ -25 °C, $\geq +70$ °C
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current	15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP
DC field stability	300 mT
AC field stability	300 mT _{ss}
Switching frequency	3 kHz
Mechanical data	
Design	Threaded barrel, M12 x 1

Wiring diagram



Technical data

Dimensions	80 mm
Housing material	Stainless steel, 1.4404 (AISI 316L)
Active area material	Plastic, LCP
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
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

A technical drawing of a square sensor plate with a central circular hole. A dimension line labeled 'T' indicates the thickness of the plate.

A technical drawing showing two views of a sensor plate. The top view shows a square plate with a central hole. The bottom view shows the plate being inserted into a rectangular recessed housing. A dimension line labeled 'G' indicates the distance from the front face of the housing to the center of the sensor hole.

A technical drawing of a sensor plate with two circular holes. A dimension line labeled 'D' indicates the distance between the centers of the two holes. A dimension line labeled 'S' indicates the distance from the center of a hole to the edge of the plate. A dimension line labeled 'W' indicates the width of the plate.

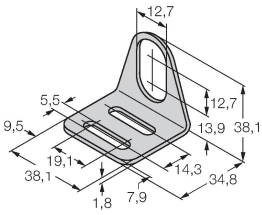
A technical drawing of a threaded barrel sensor. A yellow rectangular area at the top of the barrel indicates the active area. The barrel has a standard thread pattern.

Distance D	24 mm
Distance W	12 mm
Distance T	36 mm
Distance S	18 mm
Distance G	24 mm
Diameter active area B	Ø 12 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.

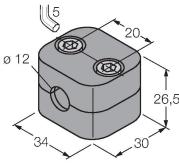
Accessories

MW-126945003



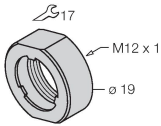
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-126901321



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

PN-M126905309



Impact protection nut for M12x1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)