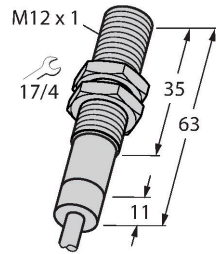


BI2-EM12WD-AP6/S929

Inductive Sensor – For Harsh Environments and Temperatures up to -60 °C



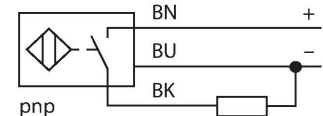
Features

- Threaded barrel, M12 x 1
- Stainless steel, 1.4571
- Protection class IP68/IP69K
- For temperatures up to -60 °C
- PTFE front cap
- Resistant to cleaning agents
- Resistance to cooling lubricants, cutting and grinding oils
- Suitable for applications in the food industry
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Technical data

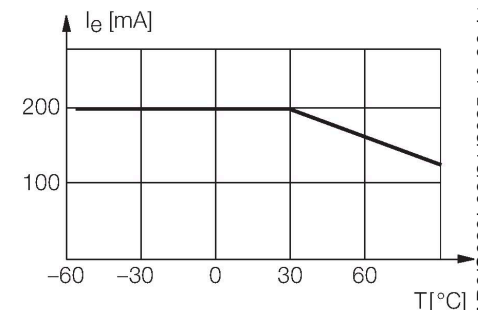
Type	BI2-EM12WD-AP6/S929
ID	4614515
Special version	S929 Corresponds to: Minimum ambient temperature = -60 °C
General data	
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ % ≤ 20 %, ≤ -25 °C
Hysteresis	3...15 %
Electrical data	
Operating voltage U_s	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_e	≤ 200 mA
Rated operational current	See derating curve
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic

Wiring diagram



Functional principle

TURCK offers leak-proof sensors for the food industry and machine engineering that are resistant to cleaning agents, cooling lubricants, cutting and grinding oils. They are made for rough environmental conditions and not only meet but even exceed the requirements of the protection classes IP68 and IP69. Special versions are available for ambient temperatures between -60°C and +250°C.

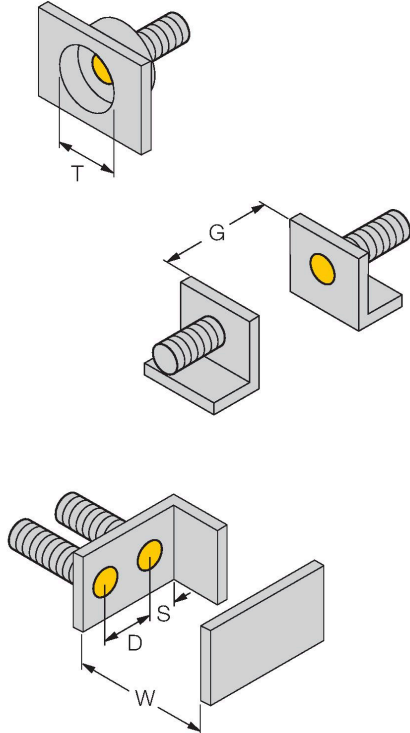


BI2-EM12WD-AP6/S929 | 02/21/2025 13:30 | technical changes reserved

Technical data

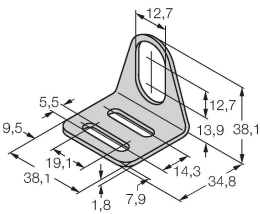
Voltage drop at I _e	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	63 mm
Housing material	Stainless steel, 1.4571 (AISI 316Ti)
Active area material	Plastic, PTFE
End cap	Plastic, PTFE
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque of housing nut	10 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, FEP, FEP, 2 m
Core cross-section	3 x 0.34 mm ²
Environmental conditions	
Ambient temperature	-60...+60 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 IP69K

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 12 mm

Accessories

MW12	6945003
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	



BSS-12	6901321
Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	

