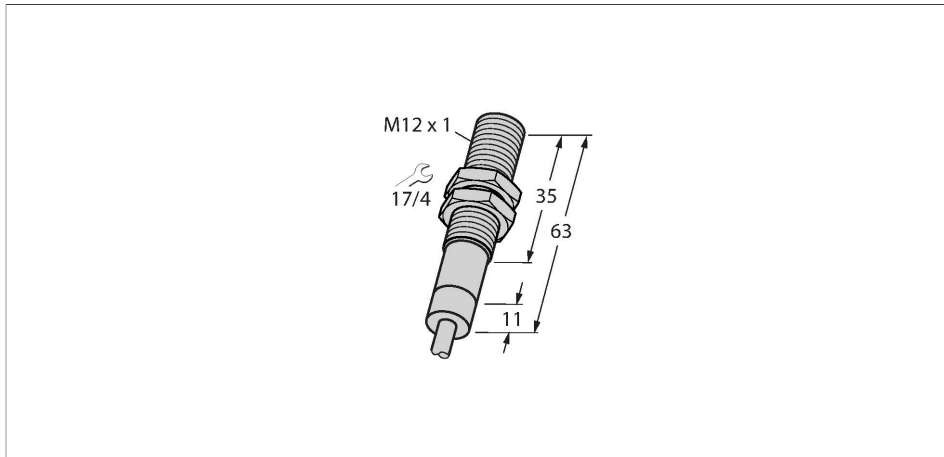


## BI2-EM12WD-AP6/S929

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



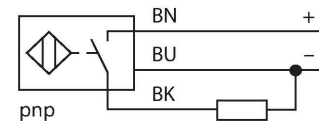
### Features

- 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

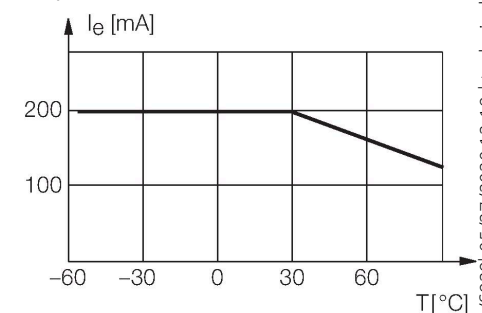
Type	BI2-EM12WD-AP6/S929
Ident. no.	4614515
Special version	S929 corresponds to: Minimum ambient temperature = -60 °C
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 % ≤ 20 %, ≤ -25 °C
Hysteresis	3...15 %
Ambient temperature	-60...+60 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 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
Voltage drop at I <sub>e</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete

### 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.



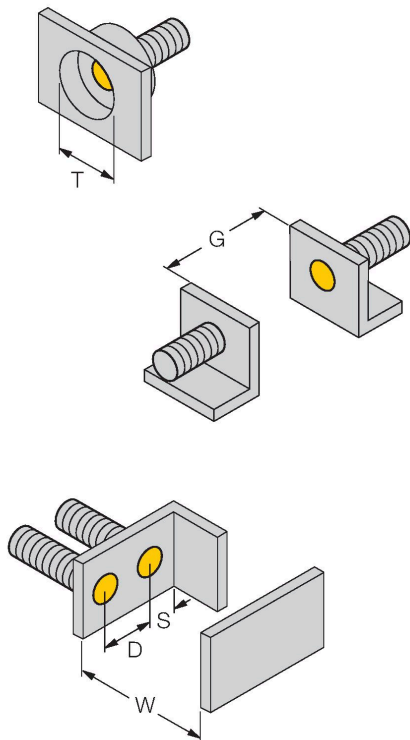
BI2-EM12WD-AP6/S929 | 05/27/2020 12-19 | technical changes reserved

## Technical data

Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
<b>Design</b>	<b>Threaded barrel, M12 × 1</b>
Dimensions	63 mm
Housing material	Stainless steel, V4A (1.4571)
Active area material	Plastic, PTFE
End cap	Plastic, PTFE
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque housing nut	10 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, FEP, FEP, 2 m
Core cross-section	3 × 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K

## Mounting instructions

### Mounting instructions/Description

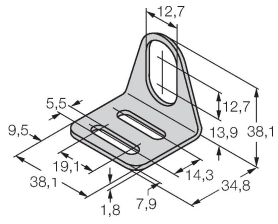


Distance D	2 × B
Distance W	3 × Sn
Distance T	3 × B
Distance S	1.5 × B
Distance G	6 × Sn
Diameter active area B	Ø 12 mm

## Accessories

MW12

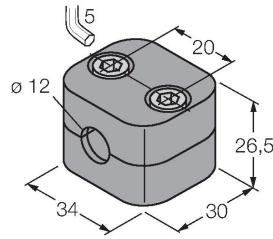
6945003



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