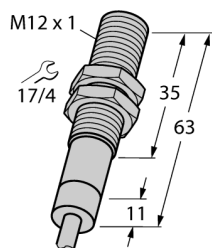


Inductive sensor

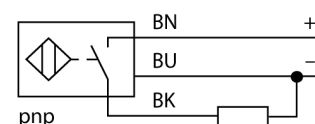
for harsh environmental conditions and temperatures down to -60 °C

BI2-EM12WD-AP6/S929



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

Wiring diagram

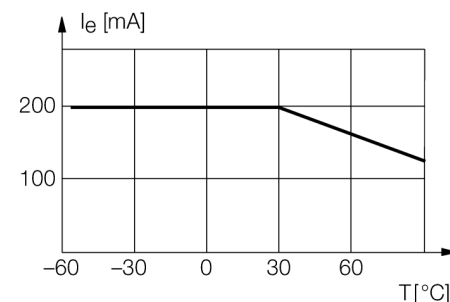


Functional principle

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.

derating curve



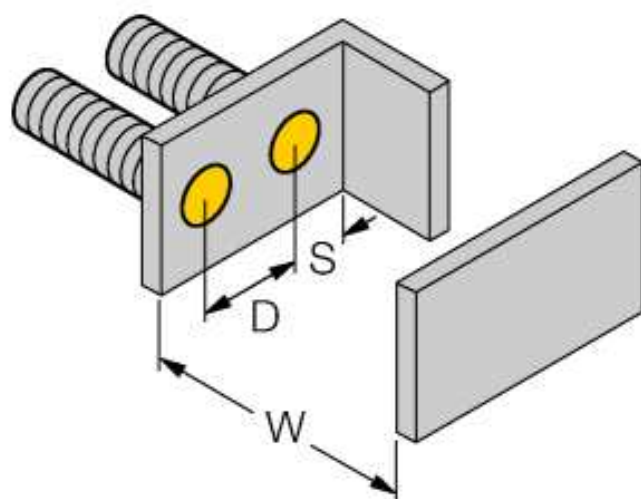
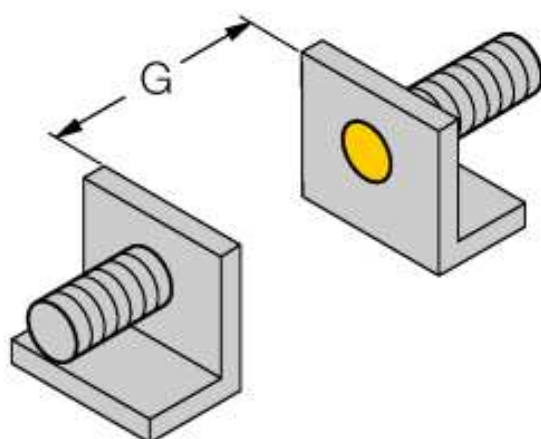
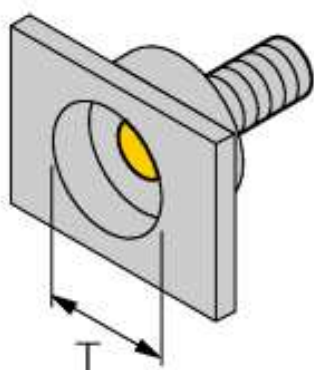
Type code	BI2-EM12WD-AP6/S929
Ident no.	4614515
Rated operating distance Sn	2 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
	≤ 20 %, ≤ -25 °C
Hysteresis	3...15 %
Ambient temperature	-60...+60 °C
Operating voltage	10...30VDC
Residual ripple	≤ 10 % U _{in}
DC rated operational current	≤ 200 mA
Rated operational current	see derating curve
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation 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	3-wire, NO contact, PNP
Switching frequency	1 kHz
Design	threaded barrel, M12 x 1
Dimensions	63 mm
Housing material	Metal, V4A (1.4571)
Material active face	Plastic, PTFE
End cap	Plastic, PTFE
Admissible pressure on front cap	≤ 20 bar
Max. tightening torque housing nut	10 Nm
Connection	cable
Cable quality	5.2 mm, FEP, FEP, 2 m
Cable cross section	3 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K

Inductive sensor

for harsh environmental conditions and temperatures down to -60 °C

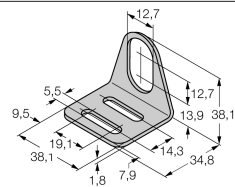
BI2-EM12WD-AP6/S929

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 of the active area B	Ø 12 mm



Inductive sensor
for harsh environmental conditions and temperatures down to -60 °C
BI2-EM12WD-AP6/S929

Accessories

Type code	Ident no.	Description	Dimension drawing
MW-12	6945003	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	