

Temperature sensor IOB

Head form B with IO-Link transmitter // -50...200 °C // -58...392 °F



Highlights

- IO-Link transmitter in standard head form B temperature sensor with protection tube
→ Ideal for retrofit activities on your equipment
- Multi-talent → Communication via IO-Link and digital switching output
- Simple connection with standardized M12 connector and unshielded connection cable
→ significant cost and time savings
- Remote access to sensor parameters → Easy configuration, easy setup, fast sensor replacement
- IO-Link transmits data purely digital → Exact, no conversion failures, interference proof
- Digital point-to-point communication, can be integrated into almost any infrastructure of fieldbus and control systems
→ Independent of controller and fieldbus
- Diagnostics including remote diagnostics down to the field device level → Ensuring high plant uptime

Technical data

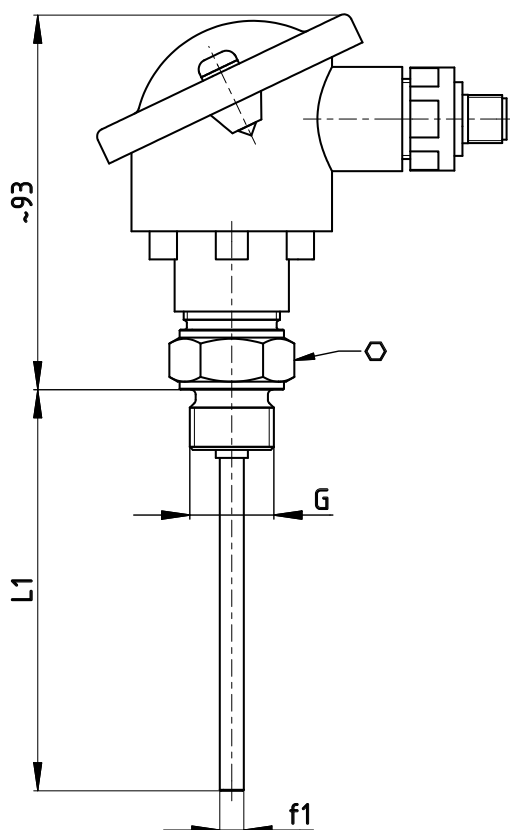
Type	Temperature sensor with head form B and integrated IO-Link transmitter	
Measuring range	-50...200 °C	-58...392 °F
Measuring medium	Water and aqueous liquids, non-aggressive gases	
Immersion tube length	50...150 mm	1.969...5.906"
Immersion tube diameter	6 mm	0.236"
Process connection	G¼, G½	
Nominal pressure	PN 25	
Medium temperature	-50...200 °C	-58...392 °F
Ambient temperature	-20...80 °C	-4...176 °F
Storage temperature	-40...85 °C	-40...185 °F
Degree of protection according to EN 60529	IP54	

Electrical data

Electrical data	
Measuring element	1 x Pt100 / Class B
Measuring insert	Not interchangeable
Accuracy	Max. $\pm 0.02\%$ of range + measuring element error
Electrical connection	Flange plug M12 x 1, 4-pole
Supply voltage	18...32 VDC
Output	
Output	IO-Link or standard I/O operation (SIO mode)
IO-Link	
Communication interface	IO-Link
Data transfer rate	COM3 (230.4 kBaud)
IO-Link specification	V1.1
Switching output	
Communication interface	IO-Link
Output function	digital switching signal according to IEC 61131-2 type 1
Rated operational current	0.1 A

Dimensions // Materials

IOB



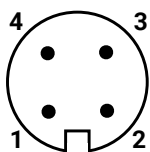
Dimensions [mm]				
Type	L1	f1	G	⊙
IOB	50, 100 or 150	∅ 6	G½ or G¼	27

Dimensions [inch]				
Type	L1	f1	G	⊙
IOB	1.969, 3.937 or 5.906	∅ 0.236	G½ or G¼	∅ 1.063

Materials	
Not in contact with media	
Connection head	Die-cast aluminium, silver painted / PBT GF30
In contact with media	
Process connection	Stainless steel 1.4571
Protection tube	Stainless steel 1.4571

Pin assignment

Pin assignment (specified according to IEC 60974-5-2):



- Pin 1: L+ (24 VDC)
- Pin 2: n.c. (not connected)
- Pin 3: L- (GND)
- Pin 4: Communication signal (C/Q) / OUT

Article numbers

Order code								
Type								
Resistance thermometer	W							
Diameter f1								
6 mm (0.236")	06							
Material								
Stainless steel 1.4571		3						
Sensor element								
1 x Pt100 / Class B				P31				
Immersion tube length L1								
50 mm (1.969")					050			
100 mm (3.937")					100			
150 mm (5.906")					150			
Measuring insert								
Not interchangeable						0		
Electrical connection								
Head form B with IO-Link transmitter							BI	
Process connection G								
G $\frac{1}{4}$								L
G $\frac{1}{2}$								2
Example order number	W	06	3	P31	050	0	BI	L