

# Temperature sensor W12

Head type B // -40...200 °C



W12



## Highlights

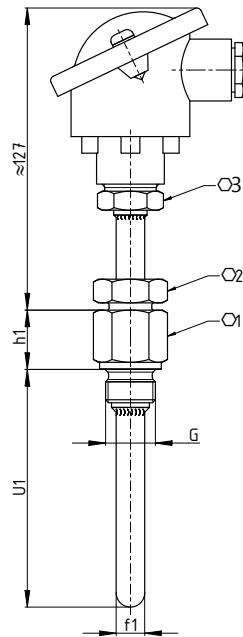
- For measurement of cooling water, lubricating oil and hydraulic oil temperature  
→ Application in industrial and marine applications
- Very high vibration resistance → Reliable and long-lasting operation
- Customer-specific variant possible → Simple integration into plants / systems
- Available as single and double resistance thermometers
- Optionally integrable transmitter → Simple integration into process control systems

Technical data	
<b>Type</b>	Temperature sensor with connection head type B
<b>Measuring range</b>	-40...200 °C
<b>Measuring medium</b>	Water and aqueous liquids, non-aggressive gases
<b>Immersion tube length</b>	80...250 mm
<b>Immersion tube diameter</b>	12 or 14 mm
<b>Process connection</b>	G $\frac{1}{4}$ , G $\frac{1}{2}$ , M27 x 2, M33 x 2
<b>Nominal pressure</b>	PN 25
<b>Ambient temperature</b>	-40...85 °C
<b>Storage temperature</b>	-25...70 °C
<b>Degree of protection according to EN 60529</b>	IP54

Electrical data	
<b>Measuring element</b>	2 x Pt100 / 2-wire 1 x Pt100 / 3-wire 1 x Pt100 / 4-wire
<b>Measuring insert</b>	Interchangeable
<b>Accuracy</b>	Class B / $\pm(0.30 \text{ K} + 0.005 \times \text{T})$
<b>Electrical connection</b>	Head type B with ceramic socket Head type B with transmitter
Analogue output	
<b>Current signal</b>	4...20 mA
<b>Supply voltage</b>	8...35 VDC
<b>Scaling</b>	Programmable
<b>Signal error</b>	NAMUR NE43
<b>Max. burden</b>	$\leq (V_{\text{supply}} - 8) / 0.023 [\Omega]$
<b>Power consumption</b>	25 mW...0.8 W

# Technical drawing // Dimensions

W12



## Dimensions [mm]

Type	U1	h1	Ø1	Ø2	Ø3	G	f1
W12	80 up to 250	25	27, 32 or 41	27	24	G½A, G¾A, M27x2 or M33x2	Ø 12 or Ø 14

## Materials

### Materials

#### Not in contact with media

**Connection head** Die-cast aluminium, silver painted

#### In contact with media

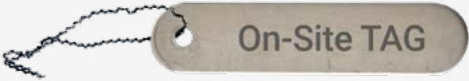
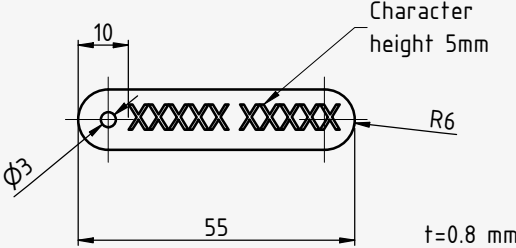
**Process connection** Stainless steel 1.4571

**Protection tube** Stainless steel 1.4571

# Article numbers

Order code								
<b>Type</b>								
Resistance thermometer	W							
<b>Diameter F1</b>								
12 mm	12							
14 mm	14							
<b>Material</b>								
Stainless steel 1.4571		3						
<b>Sensor element</b>								
1 x Pt100 3-wire / Class B				P31				
2 x Pt100 3-wire / Class B				P32				
1 x Pt100 4-wire / Class B				P41				
<b>Protection tube length U1</b>								
80 mm					080			
100 mm					100			
120 mm					120			
150 mm					150			
200 mm					200			
250 mm					250			
<b>Measuring insert</b>								
Interchangeable						2		
<b>Electrical connection</b>								
Head type B with ceramic socket							B0	
Head type B with transmitter (only with sensor element 1 x Pt100 3-wire)							BT	
<b>Process connection d1</b>								
G½								2T2
G¾								3T2
M27 x 2								HT2
M33 x 2								FT2
<b>Example order number</b>	<b>W</b>	<b>12</b>	<b>3</b>	<b>P31</b>	<b>080</b>	<b>2</b>	<b>B0</b>	<b>2T2</b>

# Accessories

Accessories	Order number
<p><b>Measuring point designation</b> Laser-inscribed stainless steel plate with fixing wire for easy attachment to measuring points</p> <ul style="list-style-type: none"><li>→ <b>Scope of delivery:</b> Designation plate inscribed according to specification and enclosed fixing wire (sealing wire)</li><li>→ <b>Fastening:</b> Wire (included in delivery), alternatively sealing, cable ties or similar (not included in delivery)</li><li>→ <b>Materials:</b> Plate stainless steel 1.4571, wire stainless steel</li><li>→ <b>Dimensions:</b> Plate 55 x 10 x 0.8 mm, wire length 180 mm</li><li>→ <b>Inscription:</b> one-sided, single-line, max. 11 characters, character height 5 mm, designation width max. 40 mm, letters, numbers, symbols, barcodes, QR codes</li><li>→ <b>Transmission of designations:</b> digital list, file formats Excel, Word or CSV</li></ul>  	<b>ONSITETAG</b>