

## W20 // Head form B with protection tube // 0...600 °C



W20

### Your advantages

| Type | W20   |
|------|---|
|      | <ul style="list-style-type: none"> <li>• For exhaust gas temperature measurement in diesel and gas engines → Up to 600 °C Media temperature</li> <li>• Very high vibration resistance → Reliable and long-lasting operation</li> <li>• Customer-specific variant possible → Simple integration into plants / systems</li> <li>• Available as single and double resistance thermometer or thermocouple</li> <li>• Optionally integrable transmitter → Simple integration into process control systems</li> </ul> |

### Technical data

|  |  |
|--|--|
| Type                                       | Temperature sensor with protection tube form 2 |
| Measuring range                            | 0...600 °C                                     |
| Measuring medium                           | Exhaust gases marine diesel engines            |
| Immersion tube length                      | 100...300 mm                                   |
| Immersion tube diameter                    | 14, 17 or 20 mm conical                        |
| Process connection                         | G½, G¾, M27 x 2, M33 x 2                       |
| Nominal pressure                           | PN 25  |
| Medium temperature                         | 0...600 °C                                     |
| Ambient temperature                        | -50...85 °C                                    |
| Storage temperature                        | -25...70 °C                                    |
| Degree of protection according to EN 60529 | IP54   |

### Electrical data

|                        |   |
|------------------------|---|
| Measuring element      | 1 x Pt100 / 3-wire / Class B<br>1 x Pt1000 / 2-wire / Class B<br>1 x NiCr-Ni (Type K)<br>2 x NiCr-Ni (Type K) |
| Measuring insert       | Interchangeable   |
| Accuracy               | Class B / $\pm(0.30 K + 0.005 \times  t )$<br>Class 1 / $\pm 1.5 \text{ °C}$ or $0.004 \times  t $            |
| Electrical connection  | Head form B with ceramic socket<br>Head form B with transmitter   |
| Supply voltage         | 8...35 VDC  |
| Power consumption      | 25 mW...0.8 W   |
| <b>Analogue output</b> |   |
| Current signal         | 4...20 mA   |
| Scaling                | Programmable  |
| Signal error           | NAMUR NE43  |
| Max. burden            | $\leq (V_{\text{supply}} - 8) / 0.023 [\Omega]$   |

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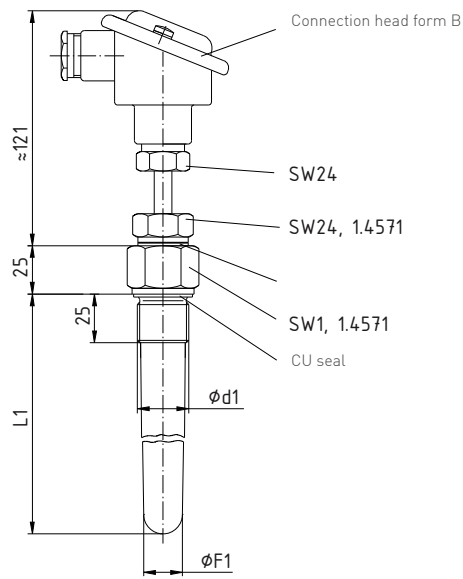
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W20



**Materials**

**Not in contact with media**

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

**In contact with media**

**Process connection** Stainless steel 1.4571 or steel 1.7335

**Protection tube** Stainless steel 1.4571 or steel 1.7335

| Order code                                 |             |          |            |            |          |           |            |
|--|-------------|----------|------------|------------|----------|-----------|------------|
| <b>Type</b>                                |             |          |            |            |          |           |            |
| Resistance thermometer                     | W           |          |            |            |          |           |            |
| Thermocouple                               | T           |          |            |            |          |           |            |
| <b>Diameter F1</b>                         |             |          |            |            |          |           |            |
| 14 / 17 mm conical up to 150 mm            | 14          |          |            |            |          |           |            |
| 17 / 23 mm conical up to 150 mm            | 17          |          |            |            |          |           |            |
| 20 / 23 mm conical from 150 mm             | 20          |          |            |            |          |           |            |
| <b>Material</b>                            |             |          |            |            |          |           |            |
| Stainless steel 1.4571 (max. 450 °C)       | 3           |          |            |            |          |           |            |
| Steel 1.7335, heat resistant (max. 600 °C) | 5           |          |            |            |          |           |            |
| <b>Sensor element</b>                      |             |          |            |            |          |           |            |
| 1 x Pt100 3-wire / Class B                 |             | P31      |            |            |          |           |            |
| 1 x Pt1000 2-wire / Class B                |             | P12      |            |            |          |           |            |
| 1 x NiCr-Ni (Type K)                       |             | 1TK      |            |            |          |           |            |
| 2 x NiCr-Ni (Type K)                       |             | 2TK      |            |            |          |           |            |
| <b>Nominal length L1</b>                   |             |          |            |            |          |           |            |
| 100 mm                                     |             |          |            | 100        |          |           |            |
| 120 mm                                     |             |          |            | 120        |          |           |            |
| 150 mm                                     |             |          |            | 150        |          |           |            |
| 200 mm                                     |             |          |            | 200        |          |           |            |
| 250 mm                                     |             |          |            | 250        |          |           |            |
| 300 mm                                     |             |          |            | 300        |          |           |            |
| <b>Measuring insert</b>                    |             |          |            |            |          |           |            |
| Interchangeable                            |             |          |            |            | 2        |           |            |
| <b>Electrical connection</b>               |             |          |            |            |          |           |            |
| Head form B with ceramic socket            |             |          |            |            |          | B0        |            |
| Head form B with transmitter               |             |          |            |            |          | BT        |            |
| <b>Process connection d1</b>               |             |          |            |            |          |           |            |
| G½ (for Ø 14 / 17 mm)                      |             |          |            |            |          |           | 2T6        |
| G¾   |             |          |            |            |          |           | 3T6        |
| M27 x 2                                    |             |          |            |            |          |           | HT6        |
| M33 x 2                                    |             |          |            |            |          |           | FT6        |
| <b>Example order number</b>                | <b>W 17</b> | <b>3</b> | <b>P31</b> | <b>100</b> | <b>2</b> | <b>B0</b> | <b>3T6</b> |

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