

## YT900221

### Temperature sensors • Temperature transmitter

Temperature sensor, Ø6mm 100long, G1/2", analog 2-wire, 4-20mA, medium temperature -20-120°C, M12 plug connector



Temperature measurement is of great importance in many industrial applications. We distinguish between two different measuring principles: 1. contactless and 2. media-contacting. Contactless measurement takes place via infrared radiation, which allows temperatures of up to 1800°C to be determined, as no peripherals of the system, such as the sensor, require contact with the medium or object. For this reason, these devices are often used in forges, rolling mills or steel processing companies in general. The measurement in contact with the medium is usually carried out in combination with a PT100 thermal resistor, which is then connected to the evaluation electronics or display devices. Areas of application for these system variants include cooling circuits, storage tanks, exhaust gas systems, extraction systems or ventilation systems.

#### Electrical features

|                               |   |
|-------------------------------|---|
| Type of analog output         | 4 - 20mA  |
| Type of electrical connection | Connector M12   |
| Type of signal output         | Two-wire  |
| Residual ripple               | 10 %  |
| Operating voltage (DC)        | 10 - 30 V   |
| ardTEEL_Genauigkeit_Enum      | Genauigkeit Messelement: $\pm(0,3 + 0,005 * t) ^\circ\text{C}$ (Klasse B nach IEC 60751) Genauigkeit Elektronik: $\pm 0,5\%$ der Messspanne |

#### Mechanical features

|                                    |  |
|------------------------------------|--|
| Type of process connection         | G1/2 inch  |
| Design                             | Cylinder, screw-thread                             |
| Pressure resistance                | 50 bar   |
| Diameter                           | 6 mm   |
| Installation depth                 | 100 mm   |
| Sensor material                    | Stainless steel 1.4571                             |
| Storage temperature                | -20 - 70 °C  |
| Length                             | 100 mm   |
| Medium temperature                 | -20 - 120 °C                                       |
| Degree of protection (IP)          | IP65   |
| Vibration resistance, acceleration | 10 g   |
| Ambient temperature                | -40 - 85 °C  |
| ardTEME_Umgebungsbestaendigkeiten  | Vibrationsfest nach IEC 60068-2-6 / IEC 60068-2-64 |

**Other features**

|         |                    |
|---------|--------------------|
| Version | Temperature sensor |
|---------|--------------------|

**Classification**

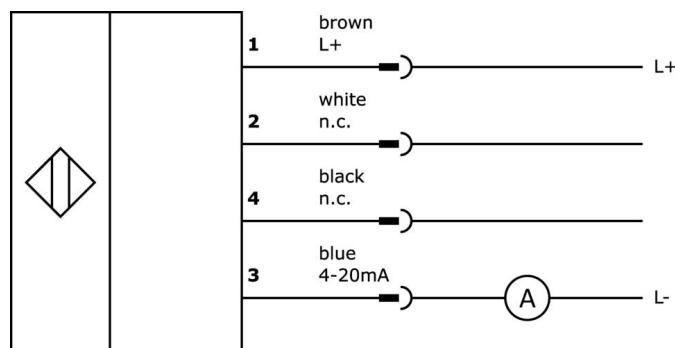
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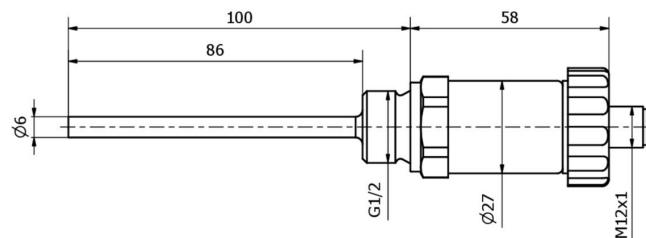
**More**

|                       |                         |
|-----------------------|-------------------------|
| IPF Product Group     | 310 temperature sensors |
| packaging dimensions  | 165 x 100 x 38 mm       |
| gross weight          | 153 g                   |
| Customs tariff number | 90251900                |
| WEEE number           | 40951076                |
| Reach-compliant       | Yes                     |
| RoHS-compliant        | Yes                     |

**Important notes**

**I** Gesamtgenauigkeit(Genauigkeit Messelement + Genauigkeit Elektronik):  $\pm(0,3 + 0,005 * 150[\text{Messstofftemperatur}]) + 0,5/100 * 200[\text{Messbereich}] = \pm2,05 \text{ }^{\circ}\text{C}$

**Connection**

**Dimensional drawing****Extract accessories program****VK205321**

Connection cable, 2m, M12  
Female (socket) 4pin Angular, Free  
conductor end, 4x0.34mm<sup>2</sup>, PUR  
(Polyurethane), Ø5.5mm, 250V, -  
25-90°C, IP67, Shielded, Suitable  
for trailing chain and torsion  
resistant, Oil and cooling  
lubricants, Welding area, Silicon...

**VK205325**

Connection cable, 2m, M12  
Female (socket) 4pin Straight, Free  
conductor end, 4x0.34mm<sup>2</sup>, PUR  
(Polyurethane), Ø5.5mm, 250V, -  
25-90°C, IP67, Shielded, Suitable  
for trailing chain and torsion  
resistant, Oil and cooling  
lubricants, Welding area, Silico...

**VK003020**

Cable socket, angular, self-  
assembly, screw connection, Ø3-6.  
5mm, 4A, 240V, -25-90°C, M12  
socket 4-pin, IP67, PBT

**VK003024**

Cable socket, Straight, Suitable for  
self-assembly, Screw connection,  
Ø3-6.5mm, 4A, 240V, -25-90°C,  
M12 Female (socket) 4pin, IP67,  
PBT

**AD000019**

Accessories pressure, profile seal  
G1/2", Ø24mm 1.5high,  
fluorocarbon rubber FKM, green

You can find further accessories on our homepage

**Installation**

Mounting / installation may only be carried out by a qualified electrician!

**Disposal**

WEEE number according to § 6 para. 3  
ElektroG: 40951076

**Safety warnings**

**I** Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

**I** Never use these devices in applications where the safety of a person depends on their functionality.