



- Wide measurement range $-30\dots+60^{\circ}\text{C}$
- Long-term stability in harsh environmental conditions
- Naturally ventilated integrated protection shield
- Easy to maintain

Description

TTEP has been thoroughly designed for measuring air temperature in meteorological, hydrological and airport installations, as well as for outdoor applications in general. The sensing element is made out of a platinum Pt100 resistance with a response curve compliant with the DIN 43760 Class 1/3 standard and 4-wire connection.

The sensor body is composed of high quality plastic material and stainless steel screws. The protective shield is made out of non-hygroscopic and UV stabilized plastic that recreates a ventilated and protected environment from sunlight.

The sensor is offered either in the TTEP-N version with natural output (4-wire connection), or in I (current), V (tension), S (RS485-Modbus), 12 (SDI-12) versions.

The sensor is supplied with power and signal cable (4 m).



Main Features

- **Wide measurement range -30 °C ÷ +60 °C**
- **High accuracy**
- **Compact and affordable**
- **Easy to maintain**
- **Low power consumption**
- **Protection against overvoltages**

Technical Specifications*

Measurement performance

Temperature [°C]

| | |
|---|---------------------|
| Transducer | Pt100 1/3 DIN 43760 |
| Measurement range | -30 ÷ +60 |
| Accuracy (natural output) | 1/3 DIN 43760 |
| Accuracy (current, tension, serial outputs) | 1/3 DIN 43760 ± 0.1 |
| Resolution | 0,03 |

Operating conditions

| | |
|-------------|---------------|
| Temperature | -30°C ÷ +60°C |
| Humidity | 0% ÷ 100% |

Outputs

| | |
|--------------|-------------------------|
| Natural | Pt100 4 fili |
| RS485-Modbus | Temperature |
| SDI – 12 | Temperature |
| Tension | 0 ÷ 2 V ↔ -30 ÷ 60 °C |
| Current | 4 ÷ 20 mA ↔ -30 ÷ 60 °C |

Power supply and Consumption (-I/-V/-S/-12 versions)

| | | | |
|-----------------------------------|------------|---------|-----|
| Supply voltage | 7 ÷ 30 Vdc | | |
| Power consumption (mA) | Min | Typical | Max |
| RS485-Modbus / SDI – 12 / 0 ÷ 2 V | - | 1 | 3 |
| 4 ÷ 20 mA | 5 | - | 25 |

Mechanical specifications

| | |
|------------------------|---|
| Protective body | Plastic material (ABS) and stainless steel screws |
| Weight | 1.2 kg |
| Dimensions | Ø = 240 mm; Height = 180 mm |
| Electrical connections | IP67 / 4 male poles |

Ordering codes

| | |
|----------------------------|---------------|
| Natural output | t001-TTEP-N |
| Current output | t001a-TTEP-I |
| Tension output | t001b-TTEP-V |
| RS485-Modbus serial output | t001c-TTEP-S |
| SDI-12 serial output | t001h-TTEP-12 |

*Changes on technical performances can be applied upon request of specific calibration