

Ta-ext-V-4090 and Ta-ext-I-4090

Ambient Temperature Sensor with external Sensor and analog Output



Short Description

Our ambient temperature sensors come equipped with a stable aluminium housing and a robust weatherproof cable. Thanks to the use of top quality components the sensors achieve very high accuracy and are ideal for use in industrial and field environments (PV plant or monitoring of engineering room).

All sensors are shipped with a calibration protocol for the measuring amplifier.

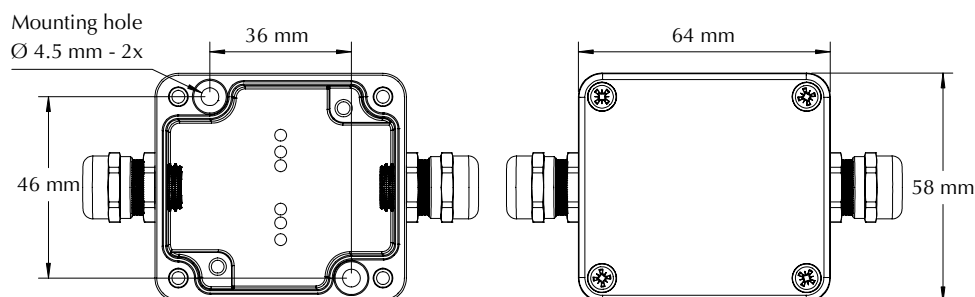
If required, the sensors can be ordered with an inspection certificate 3.1 as per DIN EN 10204.

Furthermore the disturbance of the measurement accuracy can be reduced with the optional weather protection (Shield Tamb-Si).

Technical Data

| Types | Ta-ext-V-4090 | Ta-ext-I-4090 |
|-----------------------------------|--|-----------------------------|
| Output Signal | 0 to 10 V at -40 to +90 °C | 4 to 20 mA at -40 to +90 °C |
| Uncertainty (-40 to +80°C) | 1 K | 1 K* |
| Load | min. 100 kΩ | max. 400 Ω |
| Current | appr. 2 mA | max. 25 mA |
| Voltage Supply | 12 to 28 VDC | |
| Sensor Element | Pt1000 1/3 Class B as per EN 60751 | |
| Sensor Housing | INOX steel tube, 6 mm diameter, 50 mm length | |
| Sensor Cable | 3 m LiYC11Y, 4 x AWG 26, black, weather and uv-resistant | |
| Case Material | Powder Coated Aluminium | |
| Case Dimension / Protection Level | 64 mm x 58 mm x 34 mm / IP 67 | |
| Weight | appr. 370 g | |
| Operating Condition | -40 to +80 °C | |
| Connection Cable | Length: 3 m, PUR coated, shielded (LiYC11Y, 4 x 0.14 mm ²) | |
| Customs Number | 90 25 19 20 | |

Drawing



Ta-ext-V-4090 and Ta-ext-I-4090 Ambient Temperature Sensor

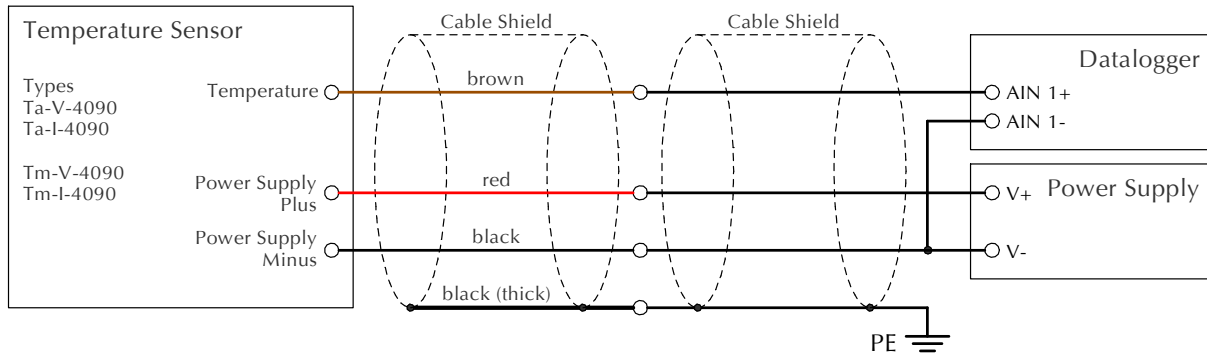
Safety Instructions

The installation and assembly of electrical equipment must be carried out by electrically qualified persons.
The sensor may not be used with equipment whose direct or indirect purpose is to prevent human death or injury, or whose operation poses a risk to humans, animals or property.

Electrical Connection

The sensors are designed for safety extra-low voltage (SELV) operation.
The cable shield shall be connected to the PE during installation.

WARNING: Connecting the supply voltage to the signal lines will damage the device.



Maximum Additional Cable Length of Temperature Sensors with 3 m Connection Cable

| Sensor type | Cable diameter | | | | | | |
|---------------|----------------------|----------------------|----------------------|---------------------|----------------------|---------------------|---------------------|
| | 0.14 mm ² | 0.25 mm ² | 0.34 mm ² | 0.5 mm ² | 0.75 mm ² | 1.0 mm ² | 1.5 mm ² |
| Ta-ext-V-4090 | 30 m | 50 m | 70 m | 100 m | 100 m | 100 m | 100 m |
| Ta-ext-I-4090 | 200 m | 200 m | 200 m | 200 m | 200 m | 200 m | 200 m |

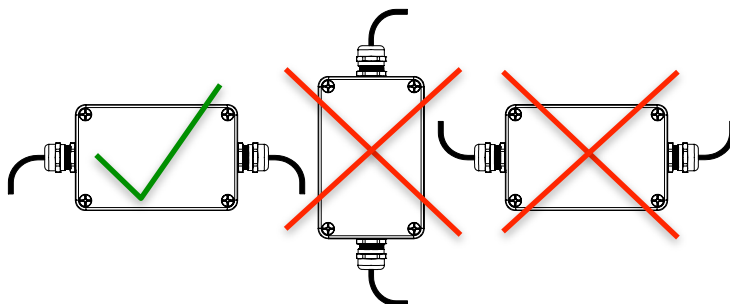
Note: For Ta-ext-I-4090 maximum internal resistance of data logger 200 Ω.

Installation Instructions

If mounted outdoors, avoid direct exposure to sunlight and rain to the sensor housing (INOX steel tube). If necessary, provide protection from the sun and rain with the optional Shield Tamb-Si.

The through holes used to fix the sensor to a stable and suitable surface shall be accessible when the housing is opened.

The tightening torque of the case cover is 180 Ncm.



Optional weather protection
Shield Tamb-Si

Maintenance

The sensors should be checked once a year for damage, contamination and correct fitting.