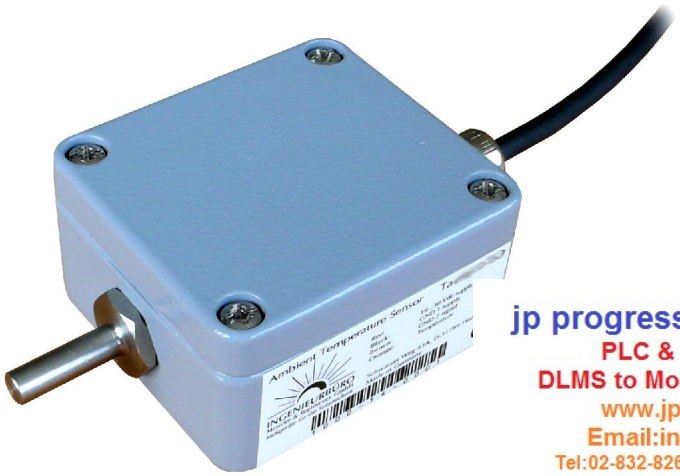
Ta-V-4090 and Ta-I-4090

Ambient Temperature Sensor with analog Output



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Short Description

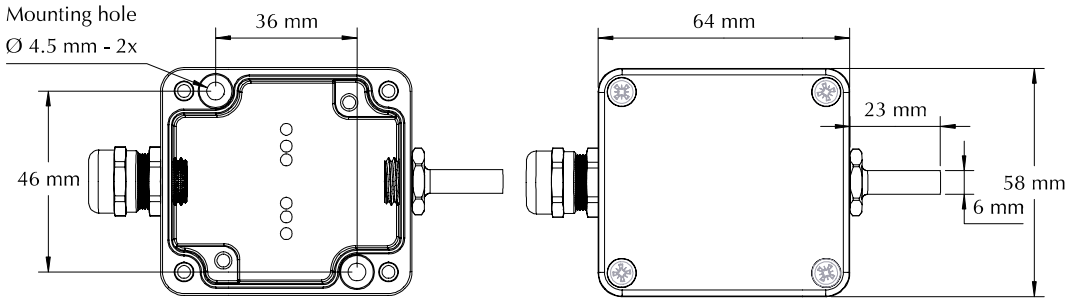
Our ambient temperature sensors come equipped with a stable aluminium housing and a robust weatherproof cable. Thanks to the use of top quality components the sensors achieve very high accuracy and are ideal for use in industrial and field environments (PV plant or monitoring of engineering room).
All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

Technical Data

Types	Ta-V-4090	Ta-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 Class A as per EN 60751	
Sensor Housing	Stainless Steel Jacket, Diameter 6 mm, Length 23 mm	
Case Material	Powder Coated Aluminium	
Case Dimension / Protection Level	64 mm x 58 mm x 34 mm / IP 67	
Weight	appr. 260 g	
Operating Condition	-40 to +80 °C	
Sensor Cable	Length: 3 m, PUR coated, shielded (LiYC11Y, 4 x 0.14 mm²)	
Customs Number	90 25 19 20	

* Note about Ta-I-4090: The measurement electronics causes self-heating of the sensor element and hence may result in slightly higher measurement readings. This effect can be minimised by improving the heat dissipation of the housing. If in doubt, please contact the manufacturer.

Drawing



Ta-V-4090 and Ta-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

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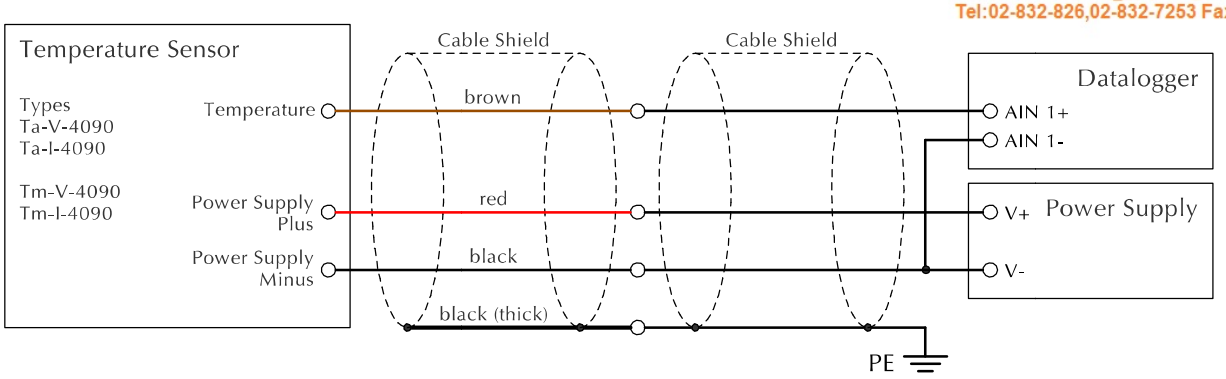


Maximum Additional Cable Length of Temperature Sensors with 3 m Connection Cable

Sensor type	Cable diameter						
	0.14 mm²	0.25 mm²	0.34 mm²	0.5 mm²	0.75 mm²	1.0 mm²	1.5 mm²
Ta-V-4090	30 m	50 m	70 m	100 m	100 m	100 m	100 m
Ta-I-4090	200 m	200 m	200 m	200 m	200 m	200 m	200 m

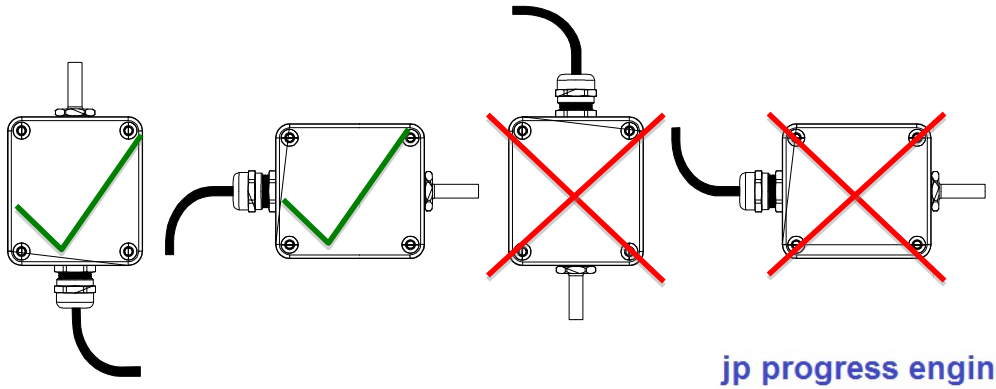
Note: For Ta-I-4090 maximum internal resistance of data logger 200 Ω.

Installation Instructions

If mounted outdoors, avoid direct exposure to sunlight and rain (if necessary, provide protection from the sun and rain).

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.



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Maintanance

The sensors should be checked once a year for damage, contamination