

Analogue Ambient Temperature Sensors Ta-ext-I-4090 / Ta-ext-V-4090



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 death or injury, or whose operation poses a risk to humans, animals or property.

Warranty and Liability

The sensor is designed for the measurement of ambient temperature. The warranty is for 1 year from the date of the invoice for the intended use. IMT Technology does not accept any liability for possible losses or damage due to the incorrect usage of the sensor. Liability for consequential damages is excluded.

Mounting Instructions

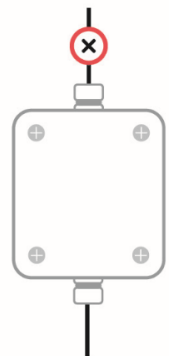
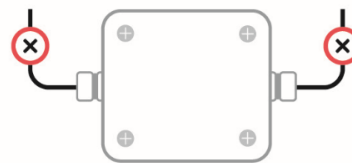
If mounted outdoors, avoid direct exposure to sunlight and rain to the sensor housing (INOX steel tube). If necessary, provide protection from the sun and rain with the optional Shield Tamb-Si. The through holes used to fix the sensor to a stable and suitable surface shall be accessible when the housing is opened. The tightening torque of the case cover is 180 Ncm. When installing the sensor, the cables must be routed downwards from the housing. The sensor cable needs a cable grip close to the sensor housing.



Correct!

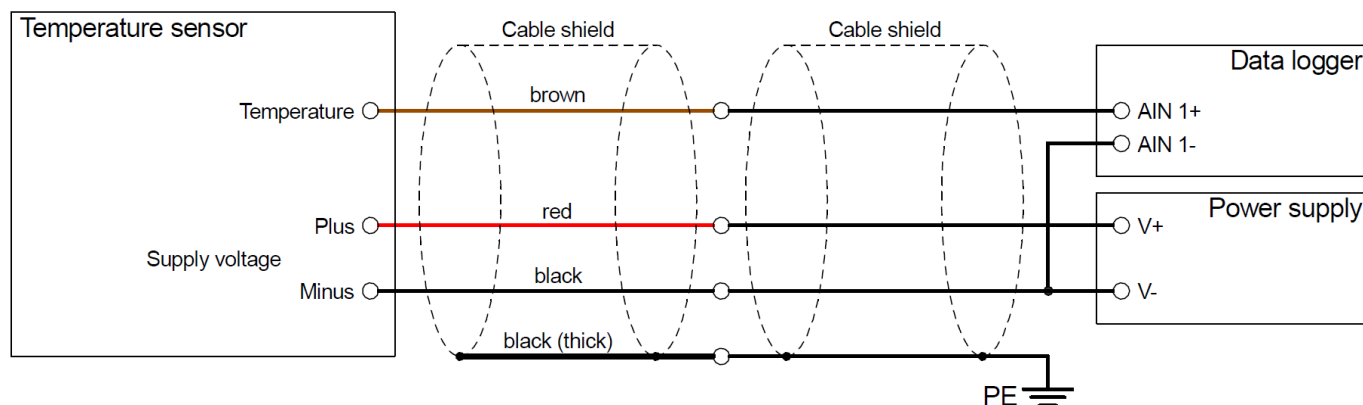


Wrong!



Electrical Connection

The sensors are designed for safety extra-low voltage (SELV) operation. The maximum power of the voltage supply is 50 VA ("Class 2 limited power").



The cable shield shall be connected to the PE during installation.

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

Cable Length

Type	Cable cross section						
	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

Maximum additional cable length of sensors with 3 m connection cable.

For Ta-I-4090 the maximum internal resistance of the data acquisition is 200 Ω.

Connection of Ta-V-4090 with separate cable per sensor.

Maintenance

Scope of the regularly check (at least once a year): Cleaning, external damage, mechanical fastening, cable laying and any damage to the cable. Should damage be found that degrades the function or safety, the sensor is to be replaced.

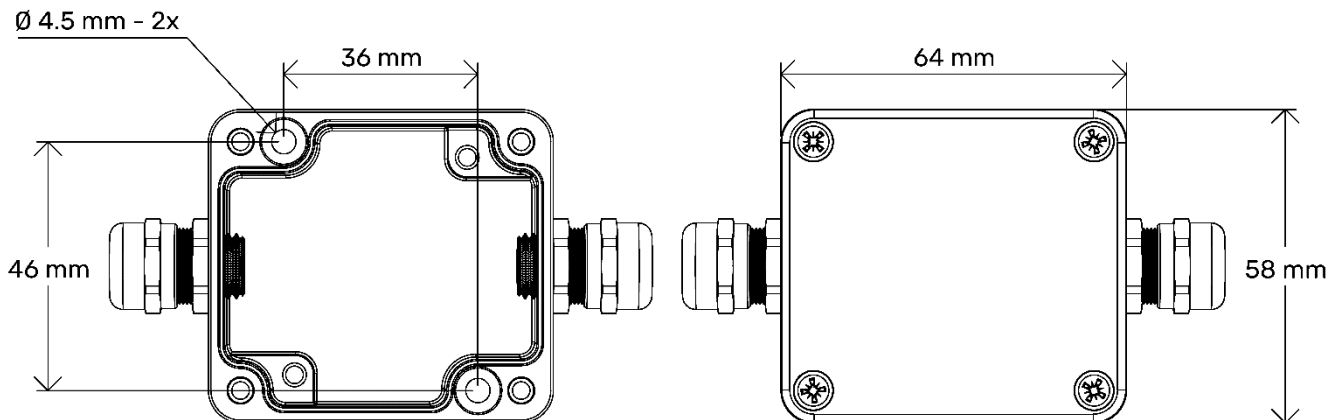
A recalibration is recommended at least every 3 years.

Technical Data

Type	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 k Ω	Max. 400 Ω
Current consumption	Approx. 2 mA	Max. 25 mA
Supply voltage	12 to 28 V _{DC}	
Sensor element	Pt1000 class AA as per EN 60751	
Sensor element housing	INOX steel tube, diameter 6 mm, length 50 mm	
Sensor cable (Pt1000)	Length: 3 m, PUR coated, shielded (LiYC11Y, 2 x 0.25 mm ²)	
Case material	Powder coated aluminium	
Case dimension / protection level	64 mm x 58 mm x 34 mm / IP 67	
Weight	370 g	
Operating temperature	Sensor element -40 to +90°C (see installation instruction) Case -40 to +80°C	
Connecting cable	Length: 3 m, PUR coated, shielded (LiYC11Y, 4 x 0.14 mm ²)	

Dimensions

Mounting Holes



Scope of Delivery

- Sensor incl. pre-assembled connecting cable
- Calibration certificate for measurement electronic
- Instruction sheet

Intelligent Measurement & Testing