3S-AT-PT1000

Ambient Temperature Sensor



Ambient Temperature Sensor

The Ambient Temperature Sensor is part of the SEVEN meteorological sensor range, which includes professional, smart measurement sensors featuring a digital or analogue interface for environmental and industrial applications such as PV plants.

Used to measure ambient temperature, the sensor is protected by a UV-resistant radiation shield supplied with the product.

The measured ambient temperature data is transmitted to data loggers and receiving units as analogue or digital output signals, according to their input requirements.

SEVEN products use reliable, high-quality components to provide accurate meteorological information in environmental and industrial applications.

This product is specially designed for the requirements of PV plant monitoring systems in accordance with the IEC 60751:2022 and IEC 61724-1:2021 standards.

Benefits and Features

- Radiation Shield Included
- High Accuracy
- Fast and Easy Installation
- Free Software Update
- SunSpec Compatible (for Modbus RTU)
- SEVEN Remote Installation Service
- SEVEN Customer Support
- 2 Year Warranty

Models

3S-AT-PT1000

A device with a PT1000 output used to measure ambient temperature. The measured values are transmitted as ohmic resistance signals. It can be connected to the SEVEN Irradiance Sensor, Sensor Box or Compact Weather Station via a 6-pin female connector with an IP67 protection rating. It can also be connected directly to data loggers and other receiving units with suitable inputs.



3S-AT-PT1000-I

Ambient temperature sensors with an analogue 4-20 mA output, specially designed for demanding environmental conditions. The ambient air temperature is detected by a high-precision PT1000 sensor and converted into an analogue 4-20 mA output signal by an electronic board housed in a UV-resistant, highly protected box.



3S-AT-PT1000-U

Ambient temperature sensors with an analogue 0-10 V output, specially designed for demanding environmental conditions. The ambient air temperature is detected by a high-precision PT1000 sensor and converted into an analogue 0-10 V output signal by an electronic board housed in a UV-resistant, highly protected box.



3S-AT-PT1000-MB

Professional, smart measurement sensors with a digital interface for environmental and industrial applications such as PV plants. The measured value can be transmitted to monitoring devices, data loggers and other receiving units via the serial RS485 interface using the Modbus RTU protocol. The sensor is SunSpec compatible.



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3S-AT-PT1000

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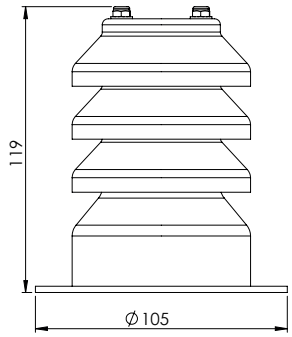
Technical Specifications

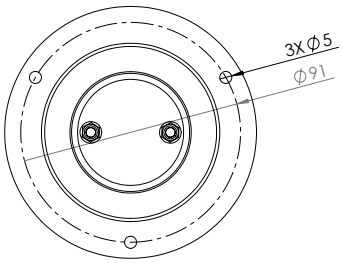
	3S-AT-PT1000	3S-AT-PT1000-MB	3S-AT-PT1000-I	3S-AT-PT1000-U
Sensor Type	PT1000			
Measurement Range	-40°C ... +85°C			
Accuracy	±0,1°C			
Resolution	0,1°C			
Data Output	PT1000	RS485 up to 38400 Baud	Analogue 4-20 mA	Analogue 0-10 V
Communication Protocol	-	Modbus RTU	-	-
Power Supply	-	12 ... 30 V DC		
Power Consumption	-	15 mA @ 24 V DC	30 mA @ 24 V DC	15 mA @ 24 V DC
Cable Length and Specifications	1,5 m 2x2x0,22 mm² 24 AWG LI2YC11Y-TP PUR Cable, UV and Weather Resistant	0,2 m 2x2x0,22 mm² 24 AWG LI2YC11Y-TP PUR cable and 1 m 3x2x0,22 mm² LI2YC11Y-TP PUR cable, Weather Resistant	0,2 m 2x2x0,22 mm² 24 AWG LI2YC11Y-TP PUR Cable and 1 m 2x2x0,22 mm² LI2YC11Y-TP PUR Cable, Weather Resistant	
Operating Temperature Range	-40°C ... +85°C			
Box Dimensions	-	65 x 100 x 41 mm (G x U x Y)	80 x 82 x 55 mm (G x U x Y)	65 x 115 x 55 mm (G x U x Y)
Radiation Shield Dimensions	Ø105 x 119 mm / Ø156 x 132,5 mm			
Weight	410 gr	550 gr	710 gr	730 gr
IP Rating	IP67			
Box Material	-	ABS*		
Sensor Housing Material	AISI 316L Stainless Steel			
Radiation Shield Material	UV-Stabilized ABS			
Mounting Method	Ground Mounting			
Standard	Class A according to IEC 60751:2022			
Origin	Türkiye			

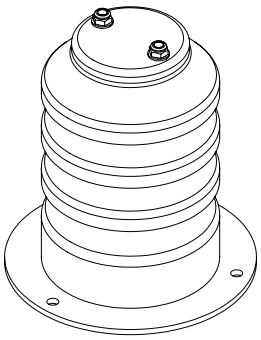
*Since this product contains plastic parts, it may discolour if exposed to direct sunlight.

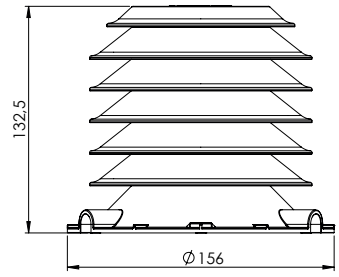
Technical Drawings

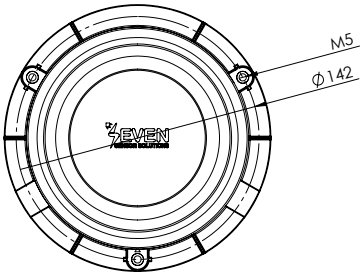
3S-AT-PT1000 Technical Drawing

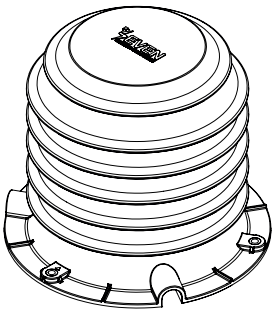








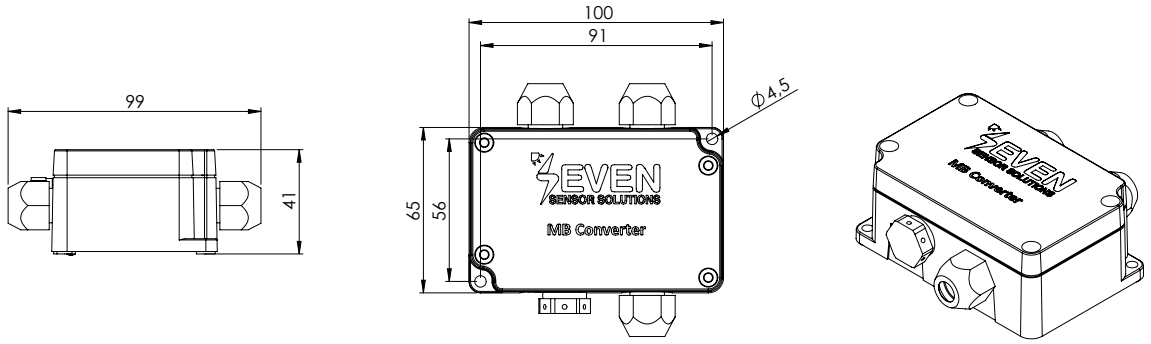




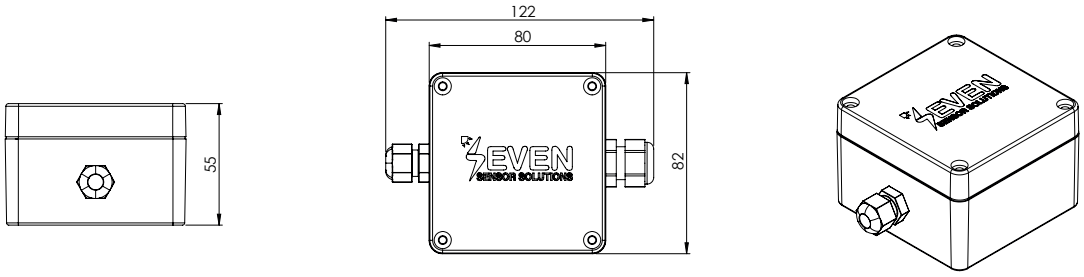
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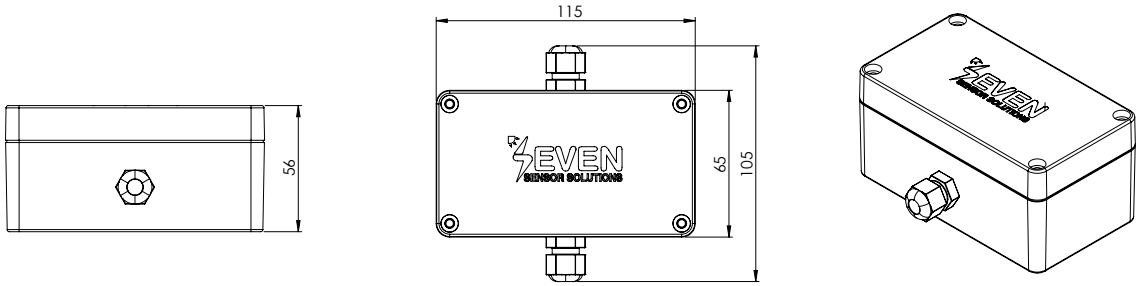
3S-AT-PT1000-MB Technical Drawing



3S-AT-PT1000-I Technical Drawings



3S-AT-PT1000-U Technical Drawings



Note: All dimensions are in mm.

** SEVEN reserves the right to make changes to this document without prior notice.

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