3S-RH&AT

Relative Humidity and Ambient Temperature Sensor

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The Relative Humidity and Ambient Temperature Sensor is part of the SEVEN meteorological sensor range, which includes professional and intelligent measuring sensors with a digital or analog interface for environmental and industrial applications such as PV plants.

The relative humidity and temperature sensor is protected by UV resistant shield which is delivered with the product. It is a measuring transmitter used for the measurement of the relative humidity and ambient temperature.

The measured relative humidity and ambient temperature data are transmitted as analog or digital output signals to the data loggers and receiver units according to the input requirements.

SEVEN products use reliable and high-quality components to provide accurate meteorological information in environmental and industrial applications. They are specially designed according to the requirements of PV plant monitoring systems.

Benefits and Features

- Protection Shield Included
- High Accuracy
- Fast & Simple to Install
- Free Software Update
- SunSpec Compliant (for Modbus RTU)
- SEVEN Remote Setup Service
- SEVEN Customer Support
- 2 Years Warranty

Models

3S-RH&AT

It is a measuring transmitter with I²C output used for the measurement of the relative humidity and ambient temperature. It can be connected to SEVEN Irradiance Sensor or Sensor Box models with a 7-pin female connector. Also, it can be connected directly to data loggers and other receiving units.

3S-RH-I

Relative humidity with 4-20 mA output specially designed for advanced environmental conditions. Relative humidity is detected with high sensitivity and converted to 4-20 mA output with an electronic card placed in a UV-resistant box.

3S-RH&AT-MB

Professional and intelligent measuring sensors with a digital interface for environmental and industrial applications such as PV plants. The measured values can be transmitted to monitoring instruments, data loggers and other receiving units via the serial RS485 interface with MODBUS RTU protocol.

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Revision 1.1

3S-RH&AT

Relative Humidity and Ambient Temperature Sensor

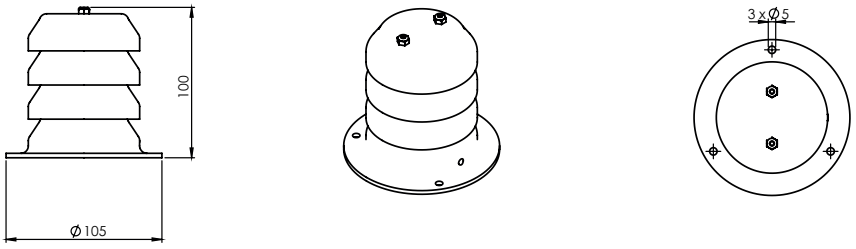
Technical Specifications

	3S-RH&AT	3S-RH&AT-MB	3S-RH-I
Sensor Type	Capacitive		
RH Range	0% to -100%		
RH Accuracy	±2% RH (20 ... 80%) at 25 °C		
RH Resolution	0.1%		
T Range	-40°C to +85°C		-
T Accuracy	± 0.3 °C at (5...60 °C)		-
T Resolution	0.1°C		-
Data Output	I²C	RS485 up to 38400 Baud	Analog 4-20 mA
Communication Protocol	-	Modbus RTU	-
Power Supply	3 V DC	12 to 30 V DC	
Power Consumption	-	20 mA max @ 24 VDC	30 mA @ 24 V DC
Electrical Connection	3 m LIYYC11Y PUR Cable, UV and Weather Resistant		
Operating Temperature Range	-40°C to +85°C		
Box Dimensions	-	64 x 68 x 35 mm (W x L x H)	
Shield Dimensions	Ø 105 x 100 mm		
Weight	0,2 kg	0,5 kg	
IP Rating	IP 65		
Box Material	-	ABS*	
Sensor Housing Material	Stainless Steel Tube - Membran Filter		
Shield Material	ABS*		
Origin	TÜRKİYE		

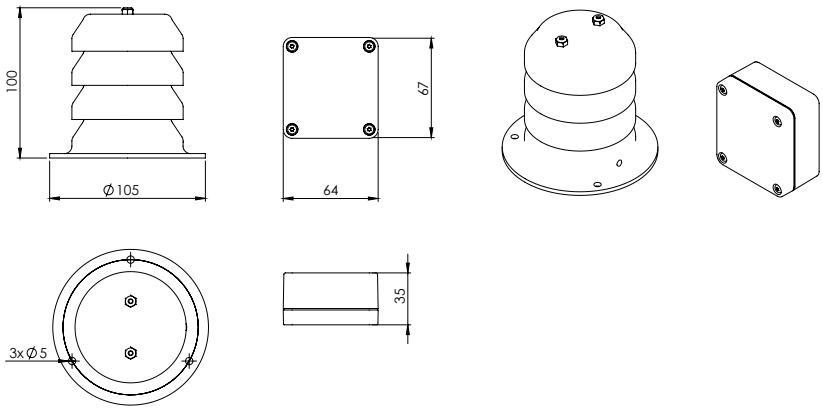
*Since this product contains plastic parts, color changes may occur when exposed to direct sunlight.

Technical Drawings

Technical Drawing of 3S-RH&AT



Technical Drawing of 3S-RH-I / 3S-RH&AT-MB



Note: All dimensions are in mm.

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