3S-RH&AT&PS

Relative Humidity, Ambient Temperature and Pressure Sensor

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The Relative Humidity, Ambient Temperature and Pressure 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, temperature and pressure 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, ambient temperature and pressure.

The measured relative humidity, data is transmitted as analog output while it is tramsmitted along with the ambient temperature and pressure as digital output signal 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 connector. Also, it can be connected directly to data loggers and other receiving units.

3S-RH/AT/PS

It is a measuring transmitter with I²C output used for the measurement of the relative humidity, ambient temperature and pressure. It can be connected to SEVEN Compact Weather Station with a 7-pin connector. Also, it can be connected directly to data loggers and other receiving units.

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.

3S-RH/AT/PS-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.

3S-RH-I

The relative humidity sensor with 4-20 mA output is 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.

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Revision 0.0

3S-RH&AT&PS

Relative Humidity, Ambient Temperature and Pressure Sensor

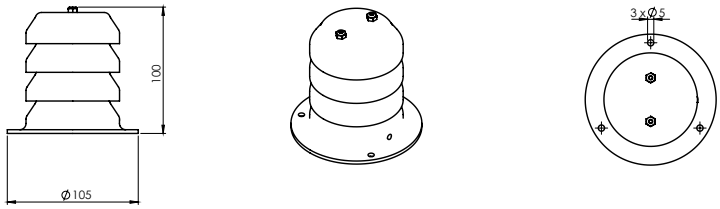
Technical Specifications

	3S-RH&AT	3S-RH&AT&PS	3S-RH&AT-MB	3S-RH&AT&PS-MB	3S-RH-I
Measured Data	Relative Humidity and Ambient Temperature	Relative Humidity, Ambient Temperature and Pressure	Relative Humidity and Ambient Temperature	Relative Humidity, Ambient Temperature and Pressure	Relative Humidity
Sensor Type	Capacitive				
RH Range	0% to 100%				
RH Accuracy	±1% RH (20 ... 70%) at 25 °C				
RH Resolution	0.1%				
T Range	-40°C to +85°C				-
T Accuracy	±0.1% °C at (5 ... 60 °C)				-
T Resolution	0.1°C				-
Pressure Range	-	260 to 1260 hPa	-	260 to 1260 hPa	-
Pressure Accuracy	-	0.5 hPa	-	0.5 hPa	-
Pressure Resolution	-	0.1 hPa	-	0.1 hPa	-
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*				
Standard	Class A according to IEC 60751:2022 (Temperature) Class A according to IEC 61724-1:2021 (Relative Humidity)				
Origin	TÜRKİYE				

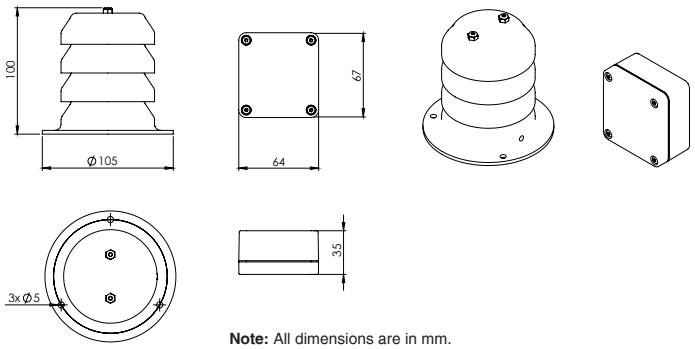
*Since this product contains plastic parts, color changes may occur when exposed to direct sunlight.

Technical Drawings

Technical Drawing of 3S-RH&AT&PS



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



Note: All dimensions are in mm.

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