

AchieVe™ Temperature / Humidity Sensor



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The HUM-W-RS485 is an AchieVe brand wall-mount temperature/humidity sensor designed to monitor conditions and communicate that data over a Modbus RTU (RS-485) network. It measures temperature from -40 to +80 °C with ± 0.5 °C accuracy, and relative humidity from 0 to 100% RH with $\pm 3.5\%$ accuracy across the 20–80% RH range, while also calculating dew point over the same -40 to +80 °C span. Power is supplied via a 9–36 VDC input, and the unit communicates using industry-standard Modbus register addressing so it can be read directly by a PLC, HMI, or building automation controller. Configuration is handled with two onboard DIP switch banks, SW1 sets communication parameters like baud rate, parity, and stop bit, while SW2 sets the Modbus slave ID using an 8-bit binary address scheme. The housing is rated IP67, making it suitable for wall mounting in wet, dusty, or otherwise harsh indoor environments where a sealed enclosure is needed. The unit also stores running analytics (min, max, and average values), for temperature, humidity, and dew point, which can be read from its dedicated Modbus registers.

Features

- HUM-W-RS485 provides combined temperature, humidity, and dew point readings from a single wall-mounted sensor over a Modbus RTU network
- Wide operating range: -40 to +80 °C temperature measurement and 0–100% RH humidity measurement in one device
- DIP switch configuration (SW1 for baud rate/parity/stop bit, SW2 for slave ID) allows quick field setup without special software
- IP67-rated enclosure protects internal electronics from dust and water, suitable for demanding indoor or semi-outdoor installations
- Built-in data logging registers track min, max, and average values for temperature, humidity, and dew point over time
- Configurable endianness setting allows compatibility with different PLC or SCADA byte-order requirements

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Model	Description	Weight (lb)	Drawing Links	Price
HUM-W-RS485	AchieVe temperature/humidity sensor, room sensor, plastic wall mounting subplate process connection, 1 port, Modbus, -40 to +80 °C, 0 to 100% RH, IP67, wall mount, push-in terminals.	0.28	PDF	\$95.00

Temperature / Humidity Sensor General Specifications

Operating Voltage	9–36 VDC
Storage Temperature	-45 to +85 °C [-49 to +185 °F]
Connection Type	Wall mount
IP Level	IP67
Communication Interface	Modbus RTU (RS-485)
Slave ID Range	1–247
Baud Rate	9600, 19200, 38400, 57600
Parity	None, Even
Stop Bit	1, 2
Temperature Measurement Range	-40 to +80 °C [-40 to +176 °F]
Temperature Accuracy	± 0.5 °C
Dew Point Range	-40 to +80 °C [-40 to +176 °F]
Humidity Measurement Range	0–100% RH
Humidity Accuracy	$\pm 3.5\%$ (20–80% RH)
Response Time	15s
Certification	CE

For additional technical information and installation see [insert link](#) or scan QR code.

Wiring

