Model SRH: Wall Mount

Relative Humidity Sensor

setra®

Setra's SRH low profile wall mount humidity sensor offers both humidity and temperature with multiple options for accuracy, temperature and outputs. It features a removable sensor tip, NIST traceability and a durable capacitive sensor that is capable of a 0 to 99% full scale RH measurement and recovery from 100% saturation. The SRH offers accuracies of 2%, 3% and 5% to meet the most stringent HVAC applications. The SRH can be ordered with either a passive (RTD Thermistor) or Active (Analog) temperature output, enabling 2 measurements from the same device.

Replaceable Sensor Tip for Easy Calibration

The SRH offers the industry's easiest replaceable sensor tip. Removing it requires no special training and can be easily replaced by the end user. No calibration is needed because each sensor module is factory calibrated before shipping, reducing downtime during service intervals.

Active & Passive Temperature Outputs

The SRH can be ordered with either a passive (RTD Thermistor) or Active (Analog) temperature output, enabling 2 measurement from 1 device. Units configured with the active temperature options feature jumper selectable Tspan ranges of 40°C, 50°C, and 60°C.

Worry Free 5 Year Warranty

The SRH comes with a 5 year warranty on the electronics and a 2 year warranty on the sensor module, giving the user peace of mind over the life of the product.

- **Low Profile**
- **Durable Capacitive Sensor**
- **0 to 99% Full Scale RH Measurement**

Model SRH Features:

- Active Temperature With Jumper Selectable
- Excellent Reliability Through ASIC Technology
- Robust Capacitive Sensor Design
- Low Cost of Ownership
- ±2%, ±3% and ±5% FS Accuracy
- Replaceable Sensor Tip
- Quick Mount, 2 Screw Install With Plug-In Terminal Wiring
- 5 Year Warranty on Electronics
- 2 Year Warranty on Sensor Module
- CE and RoHS Compliant

Applications:

- HVAC/R Control
- Indoor Air Quality (IAQ)
- Laboratories
- Antique Preservation

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ORDERING INFORMATION

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Model	Accuracy		Configuration		Outputs		Temperature Outputs		Display		Options	
SRH1 = SRH	2P	2%	W	Wall Mount	11	4 - 20 mA	T0	None (RH only)	N	None		NIST Certificate
	3P	3%			2C	0 -5 or 0-10 VDC[1] (user-selectable)	T1	10K Ω Type II Thermistor (Passive)			C	of Performance
	5P	5%					T2	1000 ohms RTD (Passive)				
							T3	-58 to 140°F (-50 to 60°C [Active])[2,3]				
							T5	+14 to 140°F (-10 to 60°C [Active])[2,3]				
							T6	10K Ω Type III Thermistor [Passive]				

Ordering Example: SRH12PW11T0NC = Model SRH, 2% Accuracy, Wall Mount, 4 to20 mA Output, RH only, No Display, NIST Certificate of Conformance

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Model	Accuracy		Temperature Outputs	
SRH3 = SRH	2P	2%	T0	None (RH only)
	3P	3%	T1	10K ohms Type II Thermistor (Passive)
	5P	5%	T2	1000 ohms RTD (Passive)
			T3	-58 to 140°F (-50 to 60°C [Active])[3]
			T5	+14 to 140°F (-10 to 60°C [Active])[3]
			T6	10K ohms Type III Thermistor [Passive]

Ordering Example: SRH32PT0 = 2% Accuracy, RH only.
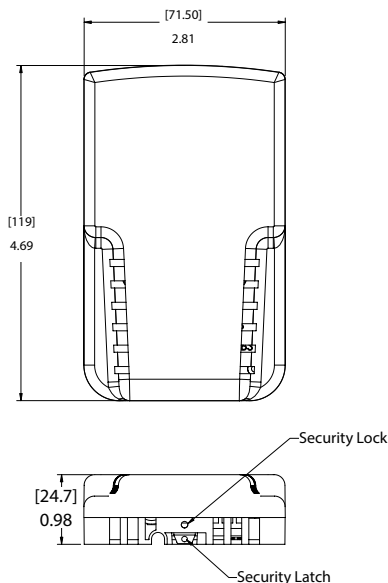
Replacement Sensor Assembly:

[1] Voltage outputs (2C) are factory configured for 0 to 5 VDC operation. User-selectable jumper for 0 to 10 VDC operation.
[2] Tspan jumper factory configured for 60°C. User-selectable Tspan for 40°C and 50°C option provided.
[3] SRH1 units originally ordered with either a T3 or 5T temperature option Must be replaced with the same T(x) version.

DIMENSIONS

[71.50]
2.81

[119]
4.69

Security Lock

[24.7]
0.98

Security Latch

[mm]
in.

GENERAL SPECIFICATIONS

RH Performance Data		Temperature Sensing Options (Passive)	
Sensing Element	Capacitive Polymer	T1: Thermistor	NTC 10K Ω 77°F/25°C (Direct Connect) Type II
Humidity Operating Range	0 to 99% RH (non-condensing)	T2: RTD Output	1000 Ω 32°F/0°C (Direct Connect)
Accuracy @ 68°F (20°C)	2%, 3%, 5%[1]	T6: Thermistor	NTC 10K Ω 77°F/25°C Type III
Non-Repeatability	0.05% FS	**Temperature Sensing Options (Active)**	
Long Term Stability	<1%/Year @ 68°F (20°C), 50% RH	T3: Ranges °F (°C) Accuracy @ 68°F (20°C)	-58 to +140 (-50 to +60) Typ @ 50% ±1.1 (±0.6)[2]
Electrical Data		T5: °F (°C) Accuracy @ 68°F (20°C)	+14 to +140 (-10 to +60) Typ @ 50% ±0.7 (±0.4)[2]
Signal Outputs		Signal Output Options (includes humidity output)	
Current (2-Wire)	4 to 20mA	Current	4 to 20mA
Field-Selectable Voltage (3-Wire)	0 to 5 VDC, 0 to 10 VDC	Field-Selectable Voltage	0 to 5 VDC, 0 to 10 VDC
Excitation	13.5 to 30 VDC (10 VDC Output) 12 to 30 VDC (4 to 20 Ma, 5 VDC Output	**Physical Description**	
Maximum Load (Current Only)	=(Supply - 10) - 0.02	Enclosure Materials	
Electrical Termination	Pluggable Terminal Block (5mm Pitch)	Wall Mount	VA 94-V0
Wiring Protection	Reverse Excitation	Duct & Outside Air	Polycarbonate 94-V0
CE Compliance	EMC Directive 2004/108/EC	Probe (Duct & Outside Air)	Aluminum
Environmental Data		Weather Shield	Porous Polyethylene
Operating Temperature °F (°C)	-40 to 140 (-40 to 60)	Sensor Tip Filter	70 Micron Polypropylene
Storage Temperature °F (°C)	-40 to 158 (-40 to 70)	Dimensions	See Dimensions Drawings
Moisture Resistance	IP65, NEMA-4 (Duct & Outside Air)		
Solar	UV Resistant (Outside Air)		
Flammability Rating	94-V0		
Compliance	RoHS Compliant, CE Compliant		

[1] 5% units available only with passive temperature option.
[2] Excitation 24 VDC ±10%
Specifications subject to change without notice.