



HS-R Series

Room Humidity Sensors



Overview

The HS-R Series are room humidity transmitters that use a highly accurate and field-proven RH sensor in a sleek, elegant, and low profile enclosure to monitor room relative humidity levels. Additional options include an LCD display. The RH output can be field selected as a linear 4-20 mA, 0-5 or 0-10 Vdc signal. This product offers a cost effective solution for customers who wish to have ease of installation to their Building Automation System.

Applications

- Measure relative humidity in HVAC Systems
- Can be implemented in hospitals
- Appropriate for use in clean rooms

Features & Benefits

- Economical
- Ease of installation
- Highly stable RH sensor element
- Proven long stability and performance
- Accuracy available at 2%, 3%, 5%

Accessories

HS-FCAL	Factory Calibration Certificate
HS-NIST	NIST Calibration Certificate

Note: Calibration certificates must be purchased at the time of purchasing the relative sensors.

Model Selection

		HS-	R	2	PF	X	X
Mounting Style	R = Room						
Humidity Sensing Accuracy	2 = 2% 3 = 3% 5 = 5%						
Enclosure	PF = Plastic flat enclosure						
Temperature Sensor Option	T = Temperature sensor (10k Ω , Type II thermistor)						
Display Option	D = Display (Humidity only is displayed)						

Product Specifications

Environmental

Operating temperature	0°C to 50°C; 32°F to 122°F
Storage temperature	0°C to 50°C; 32°F to 122°F
Ambient humidity	0 to 95% Non-condensing

Transmitter/Sensor

Sensor Type	Thermoset polymer based capacitive
Sensor Accuracy	±2, 3 or 5% RH from 5 to 95% RH
Sensor Range	0 to 100% RH non-condensing
Stability	±1.2% RH typical @ 50% RH in 5 years
Output Signal	4-20 mA current loop , 0-5 VDC, or 0-10 VDC Jumper Selectable
Hysteresis	± 3% RH
Response Time	15 Seconds Typical

Enclosure

Material	White ABS
Dimensions	84mmW x 119mmH x 29mmD (3.3" x 4.7" x 1.15")

LCD Display Option:

Range	00.0 to 99.9 %RH, 3 digit
Display Size	38.1 x 16.5 mm (1.5" x 0.65")
Digit Height	11.43 mm (0.45")
Symbol	% RH

Temperature Sensor Option

Sensor Type ¹	10,000, type 2, NTC Thermistor
Accuracy	±0.2°C; ±0.36°F

Electrical

Dissipation Factor	2.2mW/K (Thermistor)
Max Power @ 25°C (77°F)	75mW (Thermistor)
Thermal Time Constant:	Less than 10s (Thermistor)
Power Supply	24 Vac/dc ±10%
(non-isolated half-wave rectified)	
Consumption at 24 Vdc	20 mA
Input Voltage Effect	Negligible over specified operating range
Output Resolution	10 bit PWM
Internal Adjustments	ZERO and SPAN Pots
Output Drive at 24 Vdc	550Ω Max. for Current, 10kΩ Min. for Voltage
Protection Circuitry	Reverse voltage protected and output limited

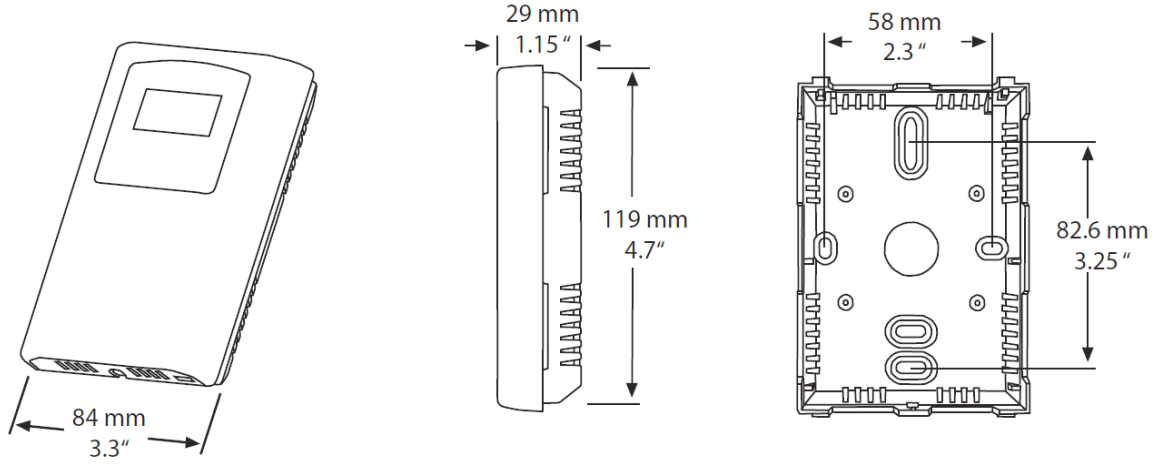
Agency Approvals

Material ²	UL94-VB
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1. Temperature sensor type stated is standard. Other temperature sensor types are available.

2. All materials and manufacturing processes comply with the RoHS directive

Dimensions



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