



# 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 (10kΩ, 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	<0.25 %RH/year
Output Signal	4-20 mA current loop , 0-5 VDC, or 0-10 VDC Switch Selectable
Hysteresis	±0.8 %RH @ 25°C (77°F)
Response Time	8 Seconds Typical

## Enclosure

Material	White ABS
Dimensions (W x H x D)	84 x 119 x 29 mm (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 <sup>1</sup>	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 (non-isolated half-wave rectified)	24 Vac/dc ±10% typical, 28 Vac/dc maximum
Consumption at 24 Vdc	20 mA @ 24 Vdc
Input Voltage Effect	Negligible over specified operating range
Output Drive at 24 Vdc 10kΩ Min. for Voltage	550Ω Max. for Current,
Protection Circuitry	Reverse voltage protected and output limited

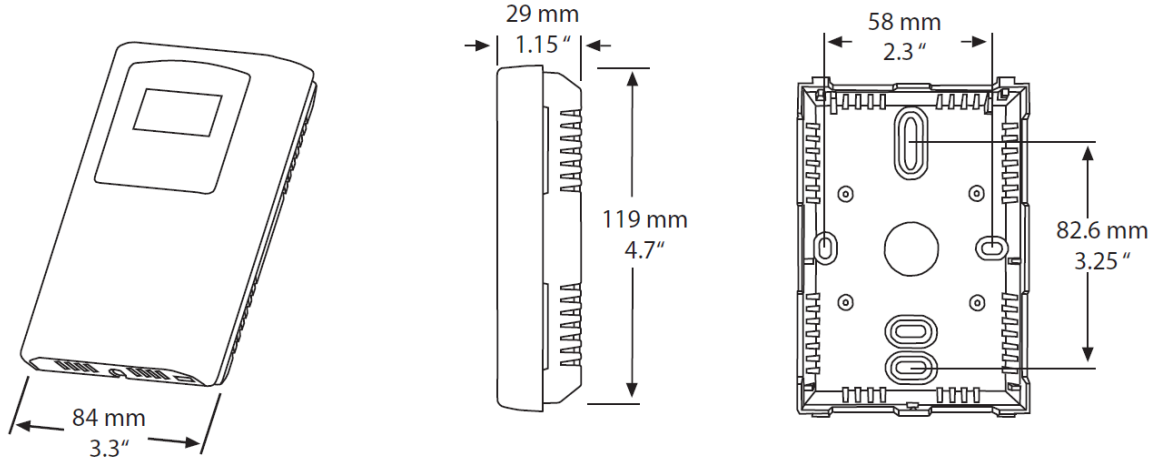
## Agency Approvals

Material <sup>2</sup>	UL94-VB
-----------------------	---------

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



Specifications subject to change without notice.  
Distech Controls, and the Distech Controls logo are trademarks of Distech Controls Inc. All other trademarks are property of their respective owner.  
©, Distech Controls Inc., 2022. All rights reserved.