HS-R Series

Room Humidity and Temperature Transmitters

Overview

The HS-R Series Humidity and Temperature Transmitter incorporates two sensors in one attractive wall mount enclosure for the most efficient environmental monitoring and control system. It uses a field-proven RH sensor to monitor relative humidity and a curve-matched thermistor to measure temperature and provides two analog outputs of either 4-20 mA, 0-5Vdc or 0-10 Vdc. Additional options include an occupancy override button, and an LCD display.

Applications

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

Features & Benefits

☐ Highly stable RH sensor element
☐ Humidity range: 0-100%
☐ Accuracy available 2%, 3%, & 5%
☐ Includes precision temperature sensor
☐ LCD display available
☐ Optional override
☐ Field selectable outputs

Accessories

HS-TFCAL	Factory Calibration Certificate
HS-TNIST	NIST Calibration Certificate

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

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Model Selection

				HS-	R	2	C04	PF	X	X
Mounting Style	R = Room									
Humidity Sensing Accuracy	2 = 2% 3 = 3% 5 = 5%									
Control Signal Output	C04 = Current, 4-20mA VFS= Voltage, 0-5VDC or 0-10VDC (Jumper Selectable)									
Enclosure	PF = Plastic flat enclosure									
Display	D = Display									
Override Option	O = Override switch (momentary)									

Product Specifications

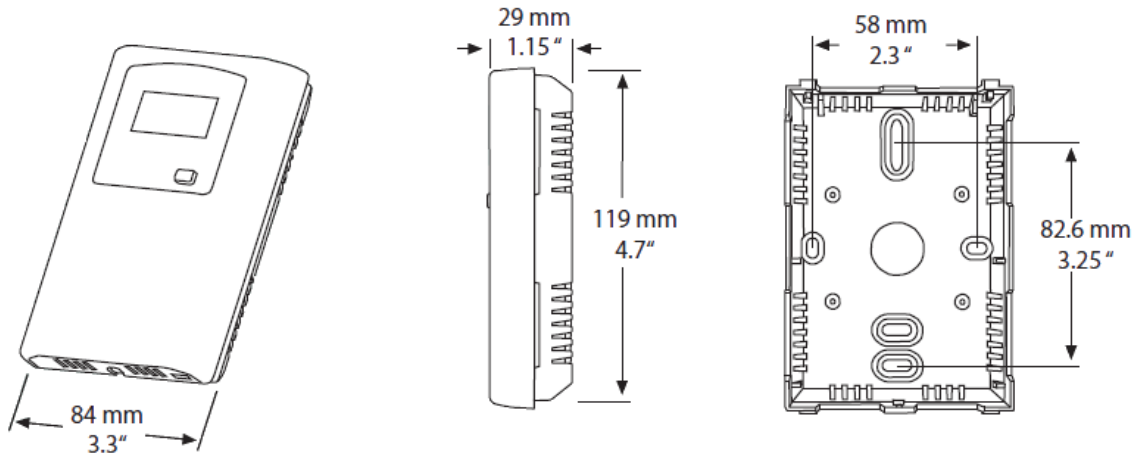|	
RH Sensor	Thermoset polymer based capacitive
Accuracy	±2, 3 or 5% RH from 5 to 95% RH
Range	0 to 100% RH non-condensing
Temperature Compensation	0˚ to 50˚C (32˚-122˚F)
Hysteresis	± 3% RH
Response Time	15 seconds typical
Stability	±1.2% RH typical @ 50% RH in 5 years
Offset	±20% RH, programmable
Temperature Sensor	Curve-matched thermistor
Accuracy	±0.2˚C (±0.4˚F)
Range	0˚ to 35˚C (32˚ to 95˚F) or 0˚ to 50˚C (32˚ to 122˚F), programmable
Power Supply	24 Vac/dc ±10% (non-isolated half-wave rectified)
Consumption	60 mA max @ 24 Vdc
Input Voltage Effect	Negligible over specified operating range
Output Signal	4-20 mA active (sourcing), 0-5 Vdc or 0-10 Vdc
Output Drive @24 Vdc	550 ohm max. for current, 10K ohms min. for voltage
Output Resolution	10 bit PWM
Protection Circuitry	Reverse voltage protected and output limited
Operating Conditions	0˚ to 50˚C (32˚-122˚F), 0-95% RH non-condensing
Programming/Selection	Via internal push buttons and on-screen menu
Wiring Connections	Screw terminal block (14 to 22 AWG)
Enclosure Size	84 W x 119 H x 29 D mm (3.3" W x 4.7" H x 1.15" D)

Optional LCD Display

Range	00.0 to 99.9, 3 digit
Symbols	˚C, ˚F, %RH
Display Size	38.1 x 16.5 mm (1.5" x 0.65")
Digit Height	11.43 mm (0.45")
Backlight	Enable/disable via menu

Optional Override Switch

Type	Front panel, momentary push-button, 2 wire dry contact
Switch ratings	N.O., SPST, 50 mA @12 Vdc

Dimensions

29 mm
1.15"

119 mm
4.7"

84 mm
3.3"

58 mm
2.3"

82.6 mm
3.25"