

HR Series

Recessed Wall Humidity/Temperature



LCD 2% or 3% accuracy
 0-5/10V RH/Temp (thermistors optional)
 Digital field offset calibration
 Durable and attractive low-profile design

DESCRIPTION

The HR series is designed for use in energy management systems in buildings. They combine excellent stability with reliable operation and the provision to offset the RH reading +/-5% for in-field calibration. Thermistor options accommodate any installation. Housing is offered in multiple color choices to match any decor.

APPLICATIONS

- HVAC room humidity and temperature measurement and control
- Energy management/building control

FEATURES

Attractive recessed design is attractive and durable

- Fits in most standard wall plates
- No exposed screws; unobtrusive tamper resistant design
- Ideal for schools

Field calibration

- Field calibration scaled adjustment allows easy adjustment of calibrated RH value as needed to maintain certification.
- 0-5V/0-10V output—jumper selectable

Choose from a range of accuracy and options

- 2% and 3% RH accuracy options
- Thermistor outputs for temperature optional

Superior RH sensing

- On-board temperature compensation for RH. Eliminates temperature coefficient errors and achieves an excellent measurement accuracy as well as high repeatability and offset stability.

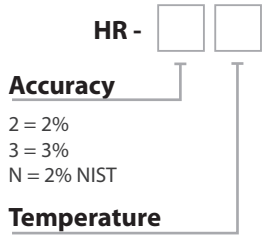
Slimline enclosure

- Tamper resistant design allows the sensor to mount flush with the wall for a clean, low-profile appearance



Trim Ring for surface mount applications or mis-sized j-boxes

ORDERING



Accuracy

- 2 = 2%
- 3 = 3%
- N = 2% NIST

Temperature

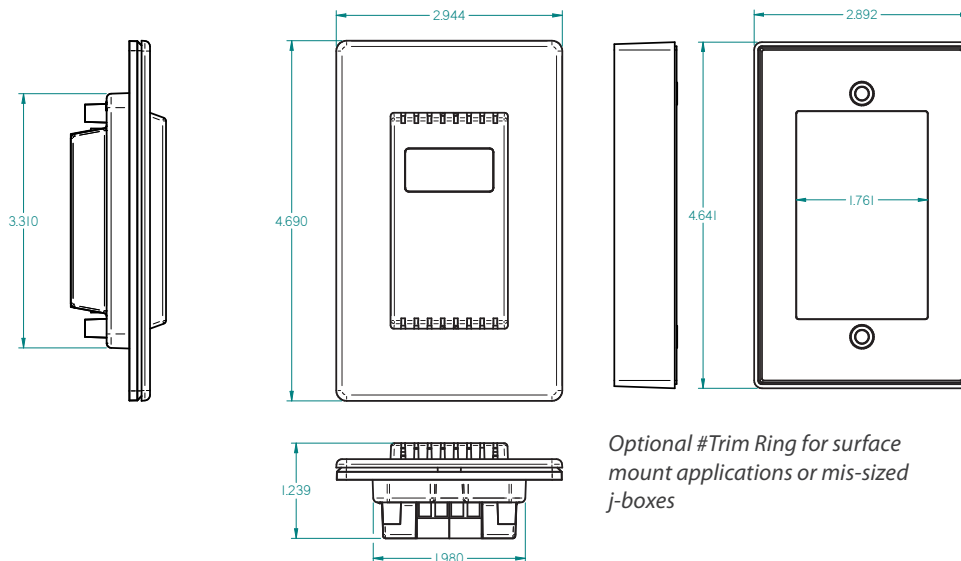
- A = None
- B = Transmitter
- C = 100Pt (385)
- D = 1000Pt (385)
- E = 10k type 2
- F = 10k type 3
- G = 10k type 3 w/11k shunt
- H = 3k
- I = 2k2
- J = 1k8
- K = 20k
- L = 100k

SPECIFICATIONS

Power Supply	12-30VDC/24VAC ⁽¹⁾ , 15mA max.	
Outputs	RH% and Temperature 3-wire 0-5 or 10V ⁽⁴⁾ (selectable)	
Output scaling	RH% 0-100% RH	
	Temperature Transmitter 50-95° F (10-35°C) or 32-122°F (0-50°C) (selectable)	
Thermistor Options	Yes, see ordering table below	
Media filter	PTFE membrane, IP54 protection	
Relative Humidity	Accuracy	2% models, ±2% over 0 to 100% RH Range; ±1.5% typ 3% models, ±3% over 0 to 100% RH Range; ±2% typ
	Resolution	0.01%RH
	Hysteresis	±0.8%RH
	Non-Linearity	factory linearized <1%RH
	Temperature coefficient	fully compensated by on-board temp sensor
	Response time ⁽²⁾	8s
Temperature	Output update rate	0.5s
	Operating range	0 to 100%RH (non-condensing)
	Long term drift	<0.25%RH per year
	Normal Operating conditions ⁽³⁾	41 to 140°F (5°C to 60°C) @ 20% to 80% RH
	Accuracy	2% models, <±0.25°C; 0.1°C typ @ 25°C 3% models, <±0.3°C; 0.25°C typ @ 25°C
	Resolution	0.01°C
Temperature	Repeatability	0.04°C
	Response time ⁽²⁾	2s
	Output update rate	0.5s
	Operating range	-40 to 158°F (-40 to 70°C)

(1) One side of transformer, secondary is connected to signal common. Dedicated transformer is recommended.
 (2) Time for reaching 63% of reading at 25°C and 1 m/s airflow.
 (3) Long term exposures to conditions outside normal range at high humidity may temporarily offset the RH reading (+3%RH after 60 hours).
 (4) 15-30VDC/24VAC power supply voltage required for 10 volt output.

DIMENSIONS



Optional #Trim Ring for surface mount applications or mis-sized j-boxes