

WALL MOUNT HUMIDITY/TEMPERATURE/DEW POINT TRANSMITTERS

Optional LCD Display

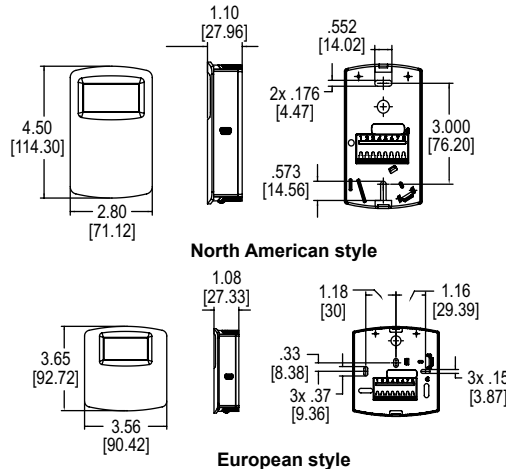
CALIBRATION SERVICES AVAILABLE



European style



North American style



The Series RHP-E/N Wall Mount Humidity/Temperature/Dew Point Transmitters are the most versatile room transmitter on the market. The stylish housing is well vented to provide air flow across the sensor to improve measurement accuracy. The humidity and the dew point are measured using a capacitive polymer sensor. The humidity and dew point can have either a current or voltage output, while the optional temperature output can be a current, voltage, RTD or thermistor. For models with current or voltage for the temperature output, the temperature range is field selectable.

BENEFITS/FEATURES

- Reduced installation cost with combined humidity/dew point and temperature sensing
- Wide application environments from a large selection of temperature sensors and 2% and 3% accuracies
- Reduced inventory with field selectable output

APPLICATIONS

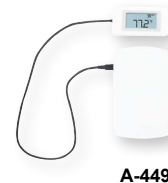
- Air economizers
- Room comfort monitoring
- Greenhouse monitoring

SPECIFICATIONS

Relative Humidity Range: 0 to 100% RH.
Temperature Range: -40 to 140°F (-40 to 60°C) for thermistor and RTD sensors. -20 to 140°F (-28.9 to 60°C) for solid state band gap temperature sensors.
Dew Point Temperature Range: -20 to 140°F (-28.9 to 60°C); 0 to 100°F (-17.8 to 37.8°C); 40 to 90°F (4.4 to 32.3°C); -4 to 140°F (-20 to 60°C) field-selectable ranges.
Accuracy: RH: Model RHP-2XXX ±2% 10 to 90% RH @ 25°C; Model RHP-3XXX ±3% 20 to 80% RH @ 25°C; Model RHP-5XXX ±5% 20 to 80% RH @ 25°C; Thermistor temperature sensor: ±0.36°F @ 77°F (±0.2°C @ 25°C); RTD temperature sensor: DIN Class B; ±0.54°F @ 32°F (±0.3°C @ 0°C); Solid state band gap temperature sensor: ±0.9°F @ 77°F (±0.5°C @ 25°C).
Hysteresis: ±0.8%.
Repeatability: ±0.1% typical.
Temperature Limits: Operating: -40 to 140°F (-40 to 60°C); Storage: -40 to 176°F (-40 to 80°C).
Compensated Temperature Range: -4 to 140°F (-20 to 60°C).
Power Requirements: 4-20 mA loop powered outputs: 10-35 VDC; 0-5/10V outputs: 15-35 VDC or 15-29 VAC.
Output Signals: 4-20 mA loop powered outputs: 4-20 mA, 2 channels for humidity/solid state temperature sensor models (loop powered on RH). Switch selectable RH/dew point. Switch selectable normal or reverse output; 0-5/10V outputs: 5 mA max., 2 channels for humidity/solid state temperature sensor models. Switch selectable 0-10 V/2-10 V or 0-5 V/1-5 V output. Switch selectable RH/dew point. Switch selectable normal or reverse output.
Solid State Band Gap Temperature Sensor Output Ranges: Switch selectable, -20 to 140°F (-28.9 to 60°C); 0 to 100°F (-17.8 to 37.8°C); 40 to 90°F (4.4 to 32.3°C); -4 to 140°F (-20 to 60°C).
Response Time: 8 s.
Electrical Connections: Screw terminal block.
Drift: <0.25% RH/year.
RH Sensor: Capacitance polymer.
Enclosure Material: Polycarbonate.
Enclosure Rating: IP20.
Display: Optional LCD; Switch selectable %RH or dew point, °F/°C.
Display Resolution: RH: 1%; Temperature: 0.1°F (0.1°C); Dew point: 1°F (1°C).
Weight: 4.4 oz (125 g).
Compliance: CE.

MODEL CHART						
Example	RHP	-3	N	4	A	-LCD RHP-3N4A-LCD
Series	RHP					Humidity/temperature dew point transmitter
Accuracy		2 3 5				2% accuracy 3% accuracy 5% accuracy
Housing			E N			European style wall mount North American style wall mount
Humidity/Dew Point Output				4		4-20 mA/0-5 VDC/0-10 VDC
Temperature Output					0 4 A B C D E F	None 4-20 mA/0-5 VDC/0-10 VDC 10K Ω @ 25°C thermistor type III 10K Ω @ 25°C thermistor type II 3K Ω @ 25°C thermistor 100 Ω RTD DIN 385 1K Ω RTD DIN 385 20K Ω @ 25°C thermistor
Options					LCD NIST	LCD display NIST traceable calibration certificate

ACCESSORIES	
Model	Description
A-449	Remote LCD display allows remote indication of select Dwyer wall mount transmitters for validation or certification purposes
SCD-PS	100-240 VAC/VDC to 24 VDC power supply



A-449

Humidity/Temperature Transmitters