



Series
RHP

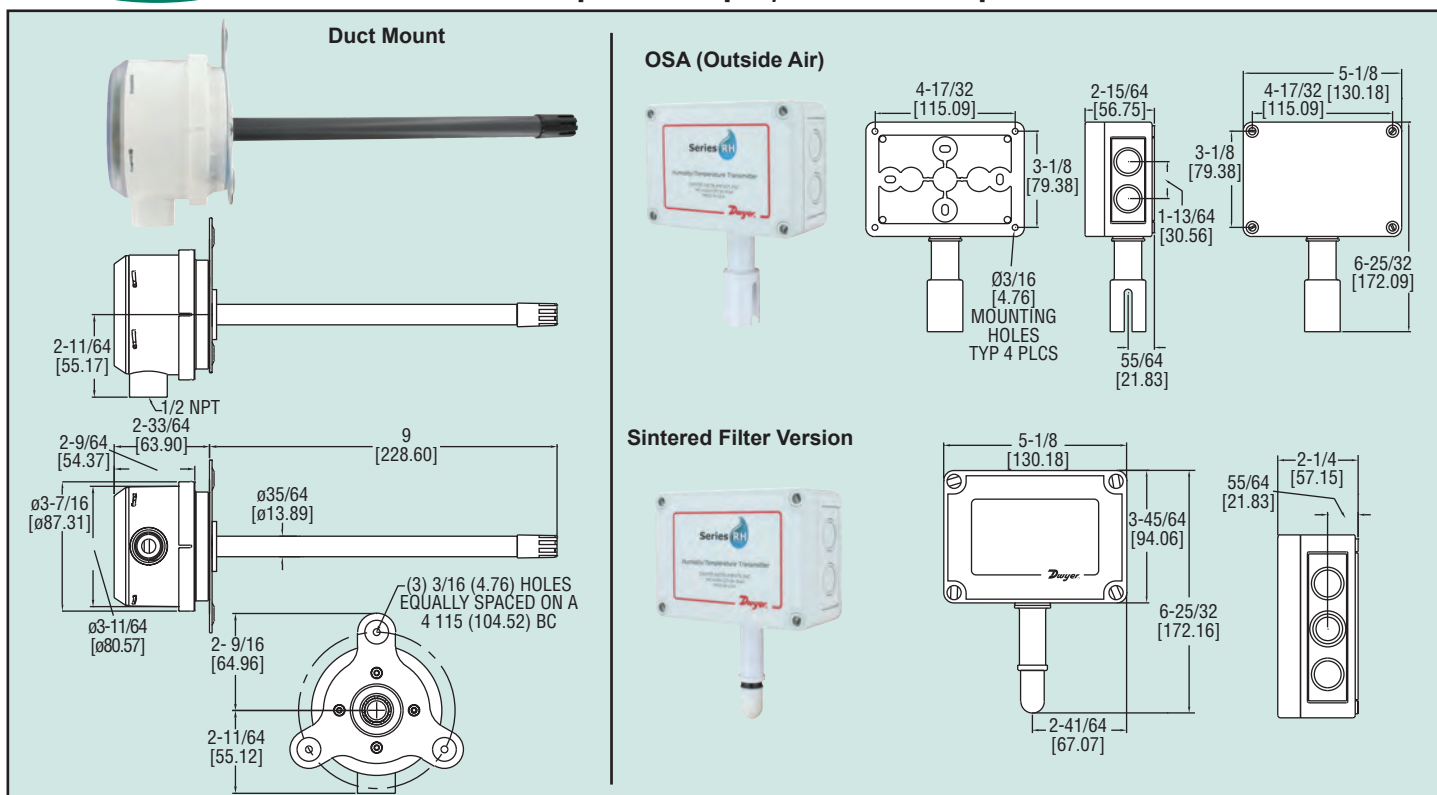
Humidity/Temperature Transmitter

Passive Temperature Outputs, Sintered Filter Options



AIR QUALITY

Humidity/Temperature Transmitters



The Series RHP Temperature and Humidity Transmitter combine the voltage or current humidity transmitter output with a passive temperature thermistor or RTD output. The polymer capacitance humidity sensor is not affected by condensation, fog, high humidity, or contaminants. The humidity sensors are available with 2%, 3% or 5% accuracies. Duct mounted transmitters are available with an optional two-line alpha numeric LCD display. The Series RHP is available with interchangeable filter options as well as replaceable sensors.

Example Series	RHP	2	D	1	A	LCD	RHP-2D1A-LCD
Accuracy		2 3 5					RH/Passive Temperature Sensor Transmitter 2% Accuracy 3% Accuracy 5% Accuracy
Housing Type			D F O S R				Duct Mount w/Membrane Filter Duct Mount w/Sintered Filter OSA (Outside Air) OSA w/Sintered Filter* Radiation Shield
RH Output				1 2 3			4 to 20mA 0 to 10V 0-5V
Temperature Sensor					0 1 2 3 A B C D E F		None 4 to 20mA 0 to 10 VDC 0-5V 10K @ 25°C Thermistor Type III 10K @ 25°C Thermistor Type II 3K @ 25°C Thermistor 100Ω RTD DIN 385 1KΩ RTD DIN 385 20KΩ @ 25°C Thermistor
Option						LCD NIST	LCD Display NIST traceable calibration certificate

*Model RHRS Radiation Shield is required for sintered filter OSA models.

SPECIFICATIONS

- Relative Humidity Range:** 0 to 100% RH.
- Temperature Range:** -40 to 140°F (-40 to 60°C).
- Accuracy, RH:** Model RHP-2XXX ±2% 10-90% RH @ 25°C; Model RHP-3XXX ±3% 20-80% RH @ 25°C; Model RHP-5XXX ±5% 20-80% RH @ 25°C;
- Accuracy, Thermistor Temp Sensor:** ±0.2°C @ 25°C (±0.36°F @ 77°F).
- Accuracy, RTD Temp Sensor:** DIN Class B; ±0.3°C @ 0°C (±0.54°F @ 32°F).
- Hysteresis:** ±1%.
- Repeatability:** ±0.1% typical.
- Temperature Limits:** -40 to 140°F (-40 to 60°C).
- Storage Temperature:** -40 to 176°F (-40 to 80°C).
- Compensated Temperature Range:** -4 to 140°F (-20 to 60°C).
- 4 to 20 mA Loop Powered Models:** Power requirements: 10 to 35 VDC; Output signal: 4 to 20 mA.
- 0-5/10V Output Models:** Power requirements: 15 to 35 VDC or 15 to 29 VAC; Output signal: 0 to 10V @ 5 mA max.
- Response Time:** 15 seconds.
- Electrical Connections:** Removable screw terminal block.
- Conduit Connection:** Duct mount: 1/2" NPS; OSA: 1/2" (22.3 mm).
- Drift:** <1% RH/year.
- RH Sensor:** Capacitance polymer.
- Temperature Sensor:** Curves A, B, C: Thermistor; Curves D, E: Platinum RTD DIN 385.
- Enclosure:** Duct mount: PBT; OSA: Polycarbonate.
- Enclosure Rating:** NEMA 4X (IP66) for OSA mount only.
- Display:** Duct mount only, optional 2-line alpha numeric, 8 characters/line.
- Display Resolution:** RH: 0.1%; 0.1°F (0.1°C).
- Weight:** Duct mount: .616 lb (.3 kg); OSA: 1 lb (.45 kg).
- Agency Approvals:** CE.