

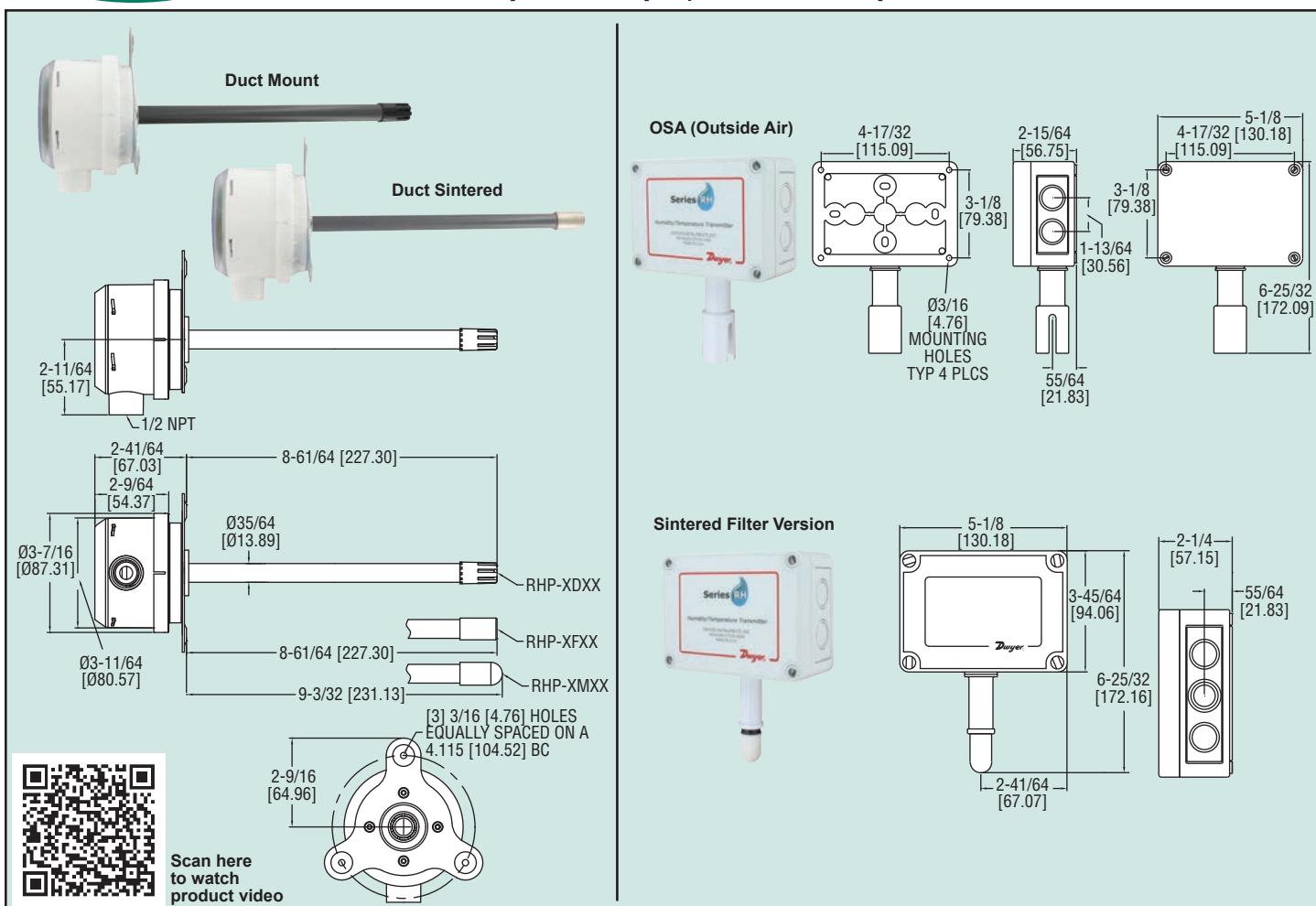
Series
RHP

Humidity/Temperature Transmitter

Passive Temperature Outputs, Sintered Filter Options

CE

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

*Model RHR5 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:

RHP-2XXX ±2% 10-90% RH @ 25°C;
RHP-3XXX ±3% 20-80% RH @ 25°C;
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).

Accuracy, Solid State Band Gap: ±0.9°F @ 77°F (±0.3°C @ 25°C).

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.

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: 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: Types 1, 2, 3: Solid state band gap; 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.