



Series
RHP

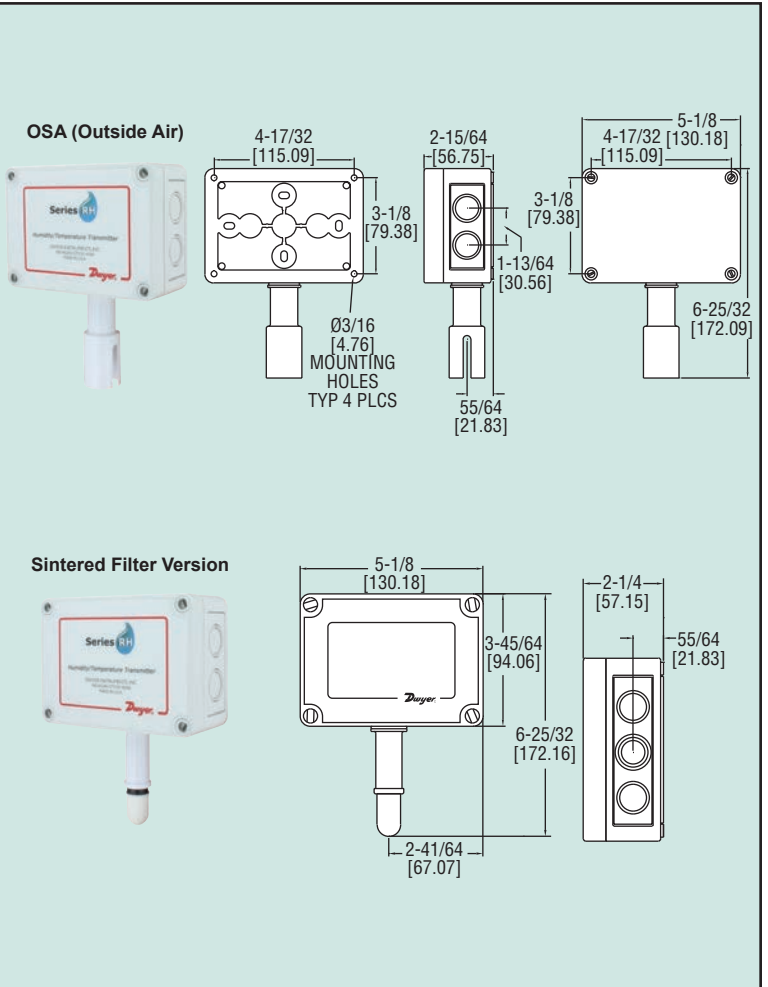
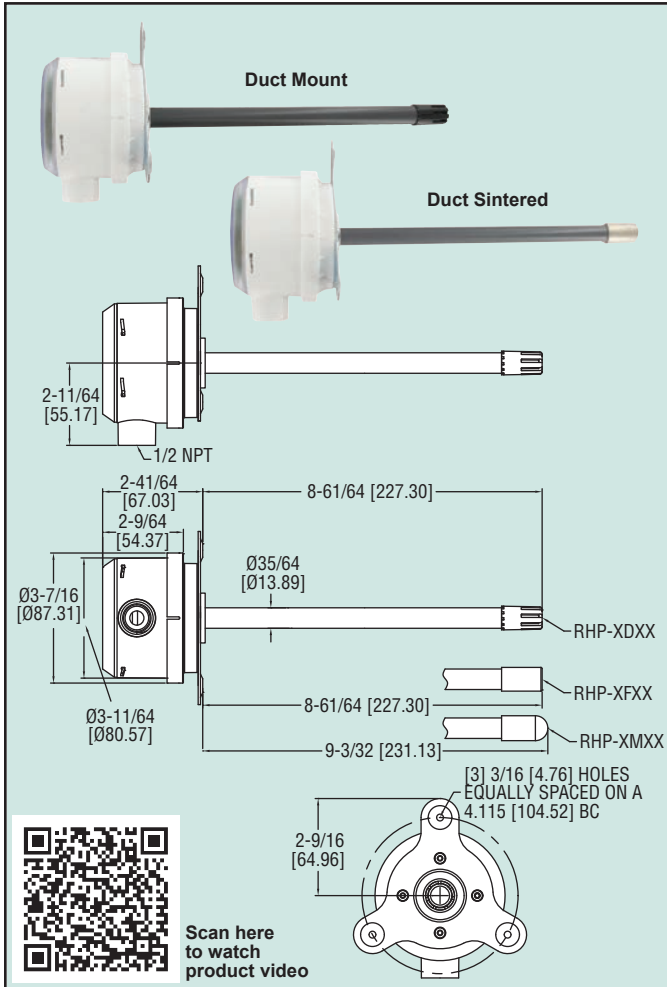
Humidity/Temperature Transmitter

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					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	LCD Display
					NIST	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:
 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.