Dwyer

SERIES RHP
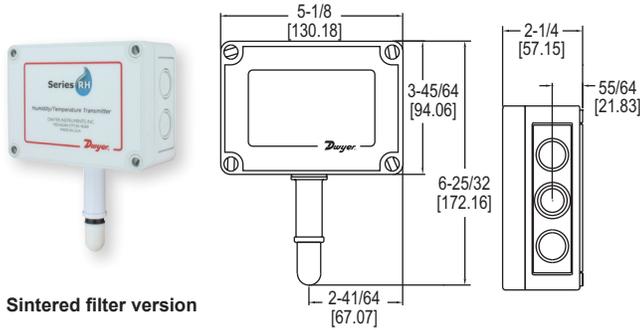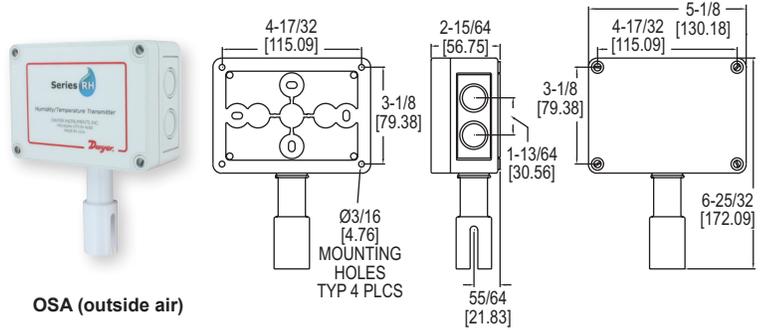
HUMIDITY/TEMPERATURE TRANSMITTERS
Passive Temperature Outputs, Sintered Filter Options

CALIBRATION SERVICES AVAILABLE

CE

5 YEAR LIMITED WARRANTY
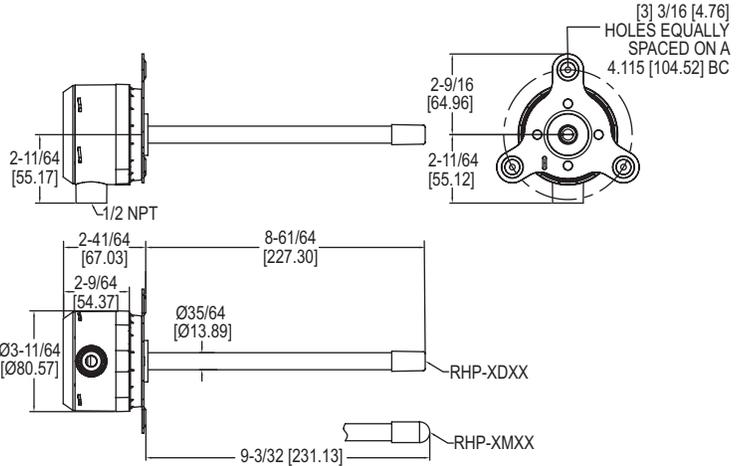
Sintered filter version

OSA (outside air)

Duct mount

Duct sintered

VIDEO ONLINE

RHP-XDXX

RHP-XMXX

The **Series RHP Temperature and Humidity Transmitters** combine the voltage or current humidity transmitter output with a passive temperature thermistor or RTD output. Featuring polymer capacitance humidity sensors, models are available with 2%, 3% or 5% accuracies. Duct mounted transmitters are available with an optional two-line alpha numeric LCD display.

FEATURES/BENEFITS
• 2%, 3%, or 5% accuracy models
• Optional LCD display on duct mount models
• Radiation shield option for outdoor installation in direct sunlight

APPLICATIONS
• Air economizers
• Outdoor temperature and relative humidity reference
• Pool room humidity monitoring

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: 10-35 VDC; Output signal: 4-20 mA.
0-5/10V Output Models: Power requirements: 15-35 VDC or 15-29 VAC; Output signal: 0-10 V @ 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 s.
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: Duct mount: NEMA 4X (IP66) for housing only; OSA: NEMA 4X (IP66).
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.

MODEL CHART

Example	RHP	-2	D	1	A	-LCD	RHP-2D1A-LCD	Price
Series	RHP						RH/passive temperature sensor transmitter	-
Accuracy		2					2% accuracy	**+$30.25**
		3					3% accuracy	**+24.75**
		5					5% accuracy	-
Housing Type			D				Duct mount with membrane filter	101.00
			M				Duct mount with HDPE filter	101.00
			O				OSA (outside air)	98.00
			S				OSA with sintered filter*	103.00
			R				Radiation shield	160.00
RH Output				1			4-20 mA	-
				2			0-10 V	-
				3			0-5 VDC	-
Temperature Sensor					0		None	-10.00
					1		4-20 mA	+10.50
					2		0-10 VDC	+10.50
					3		0-5 VDC	+10.50
					A		10K @ 25°C thermistor type III	+5.20
					B		10K @ 25°C thermistor type II	+5.20
					C		3K @ 25°C thermistor	+6.20
					D		100 Ω RTD DIN 385	+6.20
					E		1K Ω RTD DIN 385	+6.20
					F		20K Ω @ 25°C thermistor	+5.20
Options						LCD	LCD display	+52.00
						NIST	NIST traceable calibration certificate	+121.00 Ⓝ

*Use OSA with sintered filter models when purchasing Series RHRS radiation shield separately.
Ⓝ Items are net priced and are not subject to any discount.