



## SERIES RHP | HUMIDITY/TEMPERATURE TRANSMITTERS



Duct mount



OSA (outside air)  
with radiation shield



OSA (outside air)  
with sintered filter



OSA  
(outside air)

### FEATURES/BENEFITS

- 2%, 3%, or 5% accuracy models to meet project requirements
- Integral temperature sensors reduces number of devices to install
- Radiation shield option protects sensor from radiant heating effects allowing for accurate readings even when mounted in direct sunlight

### APPLICATIONS

- Air economizers
- Outdoor temperature and relative humidity reference for building systems

### DESCRIPTION

The **Series RHP Humidity/Temperature Transmitters** combine the voltage or current humidity transmitter output with a passive temperature thermistor or RTD output. The polymer capacitance humidity sensor reduces longterm affect of condensation, fog, or high humidity. 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.

### SPECIFICATIONS

<b>Relative Humidity Range</b>	0 to 100% RH.
<b>Temperature Range</b>	-40 to 140°F (-40 to 60°C).
<b>Accuracy, RH</b>	RHP-2XXX ±2% 10-90% RH @ 25°C; RHP-3XXX ±3% 20-80% RH @ 25°C; RHP-5XXX ±5% 20-80% RH @ 25°C.
<b>Accuracy, Thermistor Temp Sensor</b>	±0.2°C @ 25°C (±0.36°F @ 77°F).
<b>Accuracy, RTD Temp Sensor</b>	DIN Class B; ±0.3°C @ 0°C (±0.54°F @ 32°F).
<b>Accuracy, Solid State Band Gap</b>	±0.9°F @ 77°F (±0.3°C @ 25°C).
<b>Hysteresis</b>	±1%.
<b>Repeatability</b>	±0.1% typical.
<b>Temperature Limits</b>	-40 to 140°F (-40 to 60°C).
<b>Storage Temperature</b>	-40 to 176°F (-40 to 80°C).
<b>Compensated Temperature Range</b>	-4 to 140°F (-20 to 60°C).
<b>4-20 mA Loop Powered Models</b>	Power requirements: 10-35 VDC; Output signal: 4-20 mA.
<b>0-5/10 V Output Models</b>	Power requirements: 15-35 VDC or 15-29 VAC; Output signal: 0-10 V @ 5 mA max.
<b>Response Time</b>	15 s.
<b>Electrical Connections</b>	Removable screw terminal block.
<b>Conduit Connection</b>	Duct mount: 1/2" NPS; OSA: PG11 or PG16 (1/2" conduit) knockouts.
<b>Drift</b>	< 1% RH/year.
<b>RH Sensor</b>	Capacitance polymer.
<b>Temperature Sensor</b>	Types 1, 2, 3: Solid state band gap; Curves A, B, C: Thermistor; Curves D, E: Platinum RTD DIN 385.
<b>Enclosure</b>	Duct mount: PBT; OSA: Polycarbonate.
<b>Enclosure Rating</b>	Duct mount: NEMA 4X (IP66) for housing only; OSA: NEMA 4X (IP66).
<b>Display</b>	Duct mount only, optional 2-line alpha numeric, 8 characters/line.
<b>Display Resolution</b>	RH: 0.1%; 0.1°F (0.1°C).
<b>Weight</b>	Duct mount: .616 lb (.3 kg); OSA: 1 lb (.45 kg).
<b>Agency Approvals</b>	CE.