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% or 3% accuracies. Duct mounted transmitters are available with an optional two-line alphanumeric LCD display. The Series RHP is available with interchangeable filter options as well as replaceable sensors.

### 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.
**Accuracy, Thermistor Temp Sensor:** ±0.22°C @ 25°C (±0.4°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).
**4-20 mA Loop Powered Models:** Power requirements: 10-35 VDC; Output signal: 4-20 mA.
**0-10V Output Models:** Power requirements: 15-35 VDC or 15-29 VAC; Output signal: 0-10 VDC @ 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 (IP65) for OSA mount only.
**Display:** Duct mount only, optional 2-line alphanumeric, 8 characters/line.
**Display Resolution:** RH: 0.1%; 0.1°F (0.1°C).
**Weight:** Duct mount: 0.816 lb (.3 kg); OSA: 1 lb (.45 kg).
**Agency Approvals:** CE.

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