The Series RHP Humidity/Temperature Transmitters combine the voltage or current humidity transmitter output with a passive temperature thermometer 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 current humidity transmitter output with a passive temperature thermistor or RTD.

**APPLICATIONS**
- Radiant heat
- Reduced system operating costs with radiation shield protecting the sensor from radiant heat
- Wide application environment from a large selection of temperature sensors and 2%, 3% and 5% accuracies
- Reduced installation cost with combined humidity and temperature sensors
- Pool room humidity monitoring
- Outdoor temperature and relative humidity reference
- Air economizers
- 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 (±0.3°F @ 77°F) [A-RHP-5XXX ±5% 20-80% RH @ 25°C].
- **Accuracy, RTD Temp Sensor:** DIN Class B; ±0.3°C @ 0°C (±0.5°F @ 32°F).
- **Accuracy, Solid State Band Gap:** ±0.9°F @ 77°F (±0.5°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).
- **Power Requirements:** 4-20 mA loop powered models: 10-35 VDC; 0-5/10 V output models: 15-35 VDC or 15-29 VAC.
- **Output Signal (Model Dependent):** 4-20 mA; 0-5/10 V @ 5 mA max.
- **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: Platinum RTD DIN 385.
- **Enclosure Material:** Duct mount sensor tube: PVC-UL 94 V-0; Duct mount sensor cap: Polycarbonate ABS blend-greater than UL 94 V-0; Duct mount electronics housing and cover: Makrolon® polycarbonate-UL 94V-0; OSA: Polycarbonate.
- **Enclosure Rating:** Duct mount: NEMA 4X (IP66) for housing only; OSA: NEMA 4X (IP66).
- **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: .616 lb (.3 kg); OSA: 1 lb (.45 kg).
- **Compliance:** CE.

**ACCESSORIES**
- **Model**
  - A-RHP-FC: Replacement plastic hydrophobic filter retrofit tool for fitting O-ring on RHP-D/M models for new filter.

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