

2019-04-19

HMS112 Outdoor Humidity and Temperature Transmitters for High-Accuracy Measurements in Building Automation Applications



Features/Benefits:

- Proven HUMICAP® 180R sensor for superior long-term stability
- Measures relative humidity and temperature; dew point temperature, wet bulb temperature, and enthalpy outputs selectable
- ± 2 %RH accuracy
- NIST traceable calibration (certificate included)
- On-site calibration with HM70 Hand-Held Meter or PC connection
- Shield protects temperature and humidity probes from scattered, as well as, direct solar radiation and rain
- Easy to install on a pole, horizontal beam or flat surface

Summary:

Outdoor mounted transmitter shall incorporate a thin film polymer capacitive HUMICAP® relative humidity sensor that is field replaceable (re-calibration in the field also required after replacement). Electronics to be protected in a NEMA4 enclosure. Accuracy to be $\pm 2\%$ RH for the 0 to 90% RH range, and $\pm 3\%$ RH from 90 to 100% RH between $+10 \dots +30$ °C ($+50 \dots +86$ °F). Sensor shall have a stability of ± 0.5 %RH/year in typical HVAC applications. Transmitter to be loop powered by 10 to 28 VDC ($R_L = 0\Omega$) or 20 to 28 VDC ($R_L = 600\Omega$), provide a linear output signal of 4 to 20 mA corresponding to 0 to 100% RH, and operate over a temperature range of $40 \dots +60$ °C ($-40 \dots +140$ °F). Temperature sensor to be a platinum 1000Ω RTD having a linear output signal of 4 to 20 mA corresponding to $-40 \dots +60$ °C ($-40 \dots +140$ °F). Accuracy to be ± 0.2 °C (0.36 °F) at 20°C (68°F). Transmitter shall have the ability to calibrate relative humidity, without disturbing operation, using a single point electronic field calibrator. NIST traceable calibration and certificate included. Shall have options to calculate and output additional parameters: dew point temperature, wet bulb temperature, and enthalpy.

Vaisala Model: HMS112 (Relative Humidity and Temperature)