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HMT120 Humidity and Temperature Transmitters for Cleanrooms and Light Industrial Applications

Features/Benefits:



- Uses Vaisala HUMICAP® technology for accurate and reliable measurements
- Interchangeable sensor and/or probe for easy field calibration
- Cleanable and field replaceable filter for sensor protection
- Resistant to dust and most chemicals
- (2) loop powered, 4 ... 20 mA analog outputs
- Optional two line LCD display
- Available in Temperature Only model (TMT120)
- USB cable available for a PC connection for maintenance
- Mounting options for wall, remote, or outdoors
- Moisture parameter options available: relative humidity, dew point/frost point, wet-bulb temperature, enthalpy, absolute humidity, mixing ratio, vapor pressure, and saturation vapor pressure
- Traceable calibration certificate included

Summary:

Humidity sensor shall be a thin-film polymer capacitive HUMICAP® relative humidity sensor. Electronics shall be protected by IP65 rated enclosure; enclosure to have curved edges optimized for clean room environments. Transmitter housing to be made of PBT plastic, optional display to be PC plastic, probe body to be stainless steel (AISI 316). Sensors to be able to withstand wash down with no lasting detrimental effect to transmitter performance. Accuracy to be $\pm 1.5\%$ RH for the range of 0 ... 90 %RH and $\pm 2.5\%$ %RH for the 90 ... 100 %RH range between 0 ... +40 °C (+32 ... +104 °F). Sensor shall have a stability of $\pm 0.5\%$ RH per year in typical HVAC applications. Transmitter shall be powered by loop power 10 ... 30 VDC ($R_L = 0 \Omega$) or 20 ... 30 VDC ($R_L < 500 \Omega$). Transmitter with optional display shall operate over a temperature range of -20 ... +60 °C (-4 ... +140 °F) and transmitter without display shall operate between -40 ... 60 °C (-40 ... +140 °F). Transmitter shall have a linear output signal of 4 ... 20 mA corresponding to 0 ... 100% RH (optional moisture parameter scaling will differ). Temperature sensor to be a platinum 1000 Ω RTD having a linear output signal of 4 ... 20 mA corresponding to selected temperature range. Fixed probe models shall operate -40 ... +60 °C (-40 ... +140 °F) and remote probe models shall operate -40 ... +80 °C (-40 ... +176 °F). Temperature accuracy to be ± 0.1 °C (± 0.18 °F) in the range of +15 ... +25 °C (+59 ... +77 °F). Measurement probe shall be interchangeable for minimal maintenance downtime. Transmitter shall have the ability to calibrate relative humidity, without disturbing operation, using a single point electronic field calibrator. Shall have an optional solar radiation and precipitation shield for outdoor mounting. Traceable calibration certificate shall be included.