

## **Bid Specification**

2019-04-19

## HMT333 Humidity and Temperature Transmitter for Demanding Duct-Mounted Applications



## Features/Benefits:

- Vaisala HUMICAP® sensor for superior accuracy and stability
- Graphical display and keypad for convenient operation
- Excellent performance in harsh conditions; good chemical tolerance

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- Corrosion-resistant NEMA4 housing
- NIST traceable calibration (certificate included)
- Analog outputs, RS232/485, LAN
- MODBUS protocol support (RTU/TCP)
- Compatible with Vaisala viewLinc software
- Humidity parameter options: relative humidity, dew point/frost point, wet bulb temperature, enthalpy, absolute humidity, ppm, mixing ratio, vapor pressure, and saturation vapor pressure

## Summary:

Duct/remote mounted transmitter shall incorporate a thin film polymer capacitive HUMICAP® humidity sensor that is field replaceable and have accuracy of  $\pm 1\%$  RH (0...90% RH) and  $\pm 1.7\%$  RH (90...100% RH) at  $\pm 1.5\%$  C (59 ...  $\pm 1.00\%$  RT). Temperature sensor shall be a platinum 100 $\Omega$  RTD with a NIST traceable accuracy of  $\pm 0.2^{\circ}$ C (0.36°F) at 20°C (68°F). Electronics to be protected in a NEMA-4 enclosure. Transmitter to be powered by 10...35 VDC, 24 VAC or optional 100...240 VAC and provide two linear selectable analog outputs of: 4 to 20 mA, 0 to 20 mA, 0 to 1 V, 0 to 5 V, or 0 to 10 V, as well as serial output of standard RS232C (optional RS 485/422 or Ethernet (LAN)). Transmitter shall also have the option for a third analog output. Remote probe shall have a measurement range of  $\pm 1.00\%$  C to 80°C ( $\pm 1.00\%$  C to 120°C ( $\pm 1.00\%$  C). Standard cable length to be 2 meters (optional 5 or 10 meters). Additional solar radiation and precipitation shield for probe can be included if outdoor installation is required. Transmitter shall be microprocessor based giving the option to calculate and directly output dew point, frostpoint, absolute humidity, wet bulb temperature, mixing ratio, enthalpy, ppm (volume or weight), partial pressure of water vapor, and saturation vapor pressure. Transmitter shall also have the option of incorporating a local graphical/numerical display in its cover. Transmitter shall be able to be calibrated, without disturbing operation, using a single point electronic transfer standard. NIST traceable calibration certificate included.

Vaisala Model HMT333 Order Guide

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