

HMD65 Humidity and Temperature Duct Mount Transmitters for Building Automation Applications



HMD65 with standard length probe (left),
HMD65 with short length probe (right)

Features/Benefits:

- Vaisala HUMICAP® R2 Sensor for excellent accuracy and long-term stability, negligible hysteresis and resistance to dust and most chemicals
- Relative humidity measurements from 0 ... 100 %RH with accuracy up to ± 1.5 %RH
- Temperature measurements from $-40 \dots +80$ °C ($-40 \dots +176$ °F) with accuracy up to ± 0.1 °C (± 0.18 °F)
- (2) configurable analog outputs, 0 ... 10 V
- Digital outputs: BACnet MS/TP, Modbus® RTU
- Humidity parameter selection using DIP switches (dew point, enthalpy, wet-bulb temperature)
- IP66 rated cast aluminum housing with stainless steel probe
- Compatible with Vaisala's [Insight PC Software](#) through USB connection
- Traceable calibration certificate included

Summary:

Duct mounted transmitter shall incorporate a thin-film polymer capacitive HUMICAP® R2 relative humidity sensor that is field replaceable (re-calibration in the field is required after replacement). Accuracy to be ± 1.5 %RH for the 0 ... 90 %RH range, and ± 2.5 %RH for the 90 ... 100 %RH range between 0 ... 40 °C ($+32$ °F ... $+104$ °F). Temperature dependent effects of the sensor shall not add more than 1 %RH additional error at the maximum and minimum operating temperatures. Humidity sensor shall have T_{63} response time of 15 s at $+20$ °C ($+68$ °F) and a stability of ± 0.5 %RH per year in typical HVAC applications. Temperature sensor to be a platinum 1000 Ω RTD. Accuracy of temperature sensor to be ± 0.1 °C (± 0.18 °F) at $+20$ °C ($+68$ °F). Electronics to be protected in an IP66 enclosure. Transmitter to be powered by 15 ... 35 VDC or 16 ... 24 VAC and provide (2) linear output signals of 0 ... 10 V corresponding to 0 ... 100 %RH and $-20 \dots +80$ °C ($-4 \dots +176$ °F), while operating over a temperature range of $-40 \dots +80$ °C (-4 °F ... $+176$ °F). Digital outputs of BACnet MS/TP and Modbus® RTU over RS-485 also included. Transmitter to be available with "standard" or "short" length probe for installation in various duct sizes. Transmitter shall have the ability to calibrate relative humidity, without disturbing operation, using a single point electronic field calibrator or adjustment trimmers. Traceable calibration certificate included.

Note: The HMD65 is a pre-configured model of the [HMD60 Series](#). The HMD60 Series offers additional pre-configured models, as well as models to be fully configurable (output signals, output parameters, probe length, etc.).