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HMP1 Humidity and Temperature Probe for Space Monitoring



Probe (top), probe with Indigo200 (bottom left), and probe with Indigo520 (bottom right)

Features/Benefits:

- Relative Humidity accuracy up to ± 1.0 %RH
- Temperature measurement range $-40 \dots +60$ °C ($-40 \dots +140$ °F)
- Vaisala HUMICAP® I sensor for great stability and superior response time
- Sensor purge provides superior chemical resistance for harsh conditions
- Corrosion-resistant IP50 probe housing
- Traceable calibration (certificate included)
- Modbus RTU over RS-485
- Plug & play compatible with INDIGO200 Series Transmitters for display, relays or analog outputs
- Plug & play compatible with INDIGO520 Series Transmitters for interactive display, relays, analog outputs, data logging, and ethernet
- Humidity parameter options: Relative humidity, temperature, dew point temperature, wet-bulb temperature, absolute humidity, mixing ratio, water concentration, water mass fraction, water vapor pressure, enthalpy
- Compatible with Vaisala's INSIGHT software

Summary:

Probe is designed for measurement in indoor spaces. Probe shall incorporate a thin film polymer capacitive HUMICAP® I humidity sensor with accuracy of ± 1.0 %RH ($0 \dots 90$ %RH) at $+23$ °C ($+73.4$ °F). Temperature sensor shall be a platinum 100Ω RTD with accuracy up to 0.1 °C (0.18 °F) at $+23$ °C ($+73.4$ °F). Electronics to be protected in an IP50 rated metal probe body with an operating temperature range of $-40 \dots +60$ °C ($-40 \dots +140$ °F). Probe to be powered by $15 \dots 30$ VDC with Modbus RTU communication protocol over RS-485. Remote probe head shall have a temperature operating range of $-40 \dots +60$ °C ($-40 \dots +140$ °F), with relative humidity accuracy specified between $-40 \dots +60$ °C ($-40 \dots +140$ °F). Probe can be connected directly to INDIGO200 to form single wall-mounted unit. Probe shall calculate and directly output dew point temperature, wet-bulb temperature, absolute humidity, mixing ratio, water concentration, water mass fraction, water vapor pressure, and enthalpy. Probe shall have the ability to be calibrated in the field via PC connection. Traceable calibration certificate included.