VAISALA

Bid Specification

2024-02-28

HM40 Series Compact and Portable Humidity and Temperature Meter

HM40 Overview:

- Measures relative humidity from 0 ... 100 %RH
- Wide measurement range and displays multiple parameters (RH, T, T_d, T_w, a, x, h)
- Fixed and remote probe models available
- Ideal for spot-checking a variety of environments
- Incorporates Vaisala HUMICAP® technology
- Graphical display indicates when measurement has stabilized
- Battery powered for portable use
- Calibration reminder functionality
- Convenient calibration – either replace interchangeable probe or calibrate in the field

HM41 Features/Benefits

- Incorporates the proven Vaisala HUMICAP® 180R Humidity Sensor
- Utilizes interchangeable HMP113 probe
- RH% accuracy up to ± 1.5 %RH
- RH% T_{90} response time: 17 s
- Temperature measurement range of -10… +60 °C (+14… +140 °F)
- IP54 rating
- Designed for spot checking in rooms
- Probe material: PC/ABS plastic blend

HM42 Features/Benefits

- Incorporates the proven Vaisala HUMICAP® 100R-Mini Humidity Sensor
- Uses HM42PROBE
- RH% accuracy up to ± 1.5 %RH
- RH% T_{90} response time: 26 s
- Temperature measurement range of -40… +100 °C (-40 … +212 °F)
- IP54 rating (indicator), IP40 rating (probe)
- Designed for spot checking in small, hard to reach places
- Probe material: stainless steel

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HM45 Features/Benefits

- Incorporates the proven Vaisala HUMICAP® 180R Sensor
- Interchangeable HMP113 Probe with HM40HANDLE
- RH% accuracy up to ± 1.5 %RH
- RH% T_{90} response time: 17 s
- Temperature measurement range of -40 … +60 °C (-40 … +140 °F)
- IP54 rating
- Designed for spot checking where remote probe is needed
- Probe material: PC/ABS plastic blend

HM46 Features/Benefits

- Incorporates the proven Vaisala HUMICAP® 180R Sensor
- Uses HM46PROBE
- RH% accuracy up to ± 1.5 %RH
- RH% T_{90} response time: 40 s
- Temperature measurement range of -40 … +100 °C (-40 … +212 °F), short term up to +180 °C (+356 °F)
- IP54 rating (indicator), IP40 rating (probe)
- Designed for spot checking in HVAC applications and in ducts
- Stainless steel probe with brass filter

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HM41 Summary:

Relative humidity and temperature portable calibrator shall incorporate a thin film polymer capacitive HUMICAP® 180R humidity sensor and have accuracy of ± 1.5% RH (0 … 90 %RH) and ± 2.5 %RH (90 … 100 %RH) between 0 ... 40 °C (32 ... 104 °F). Measurement probe (HMP113) shall be fixed to the indicator. Temperature sensor shall be a platinum 1000 Ω RTD with accuracy of ± 0.2 °C (0.36 °F) between 0 … +40 °C (+32 … +104 °F) with a measurement range of -10 ... +60 °C (+14 ... 140 °F). Indicator shall additionally be able to calculate and display dew point, wet bulb temperature, absolute humidity, mixing ratio, and enthalpy. The graphical LCD display shall feature multilingual menu-based user interface. Shall have the ability to be calibrated by the user in the field or offer an interchangeable, calibrated probe. Traceable calibration certificate included.

HM42 Summary:

Relative humidity and temperature portable calibrator shall incorporate a thin film polymer capacitive HUMICAP® 100R-Mini humidity sensor and have accuracy of ± 1.5% RH (0 … 90 %RH) and ± 2.5 % RH (90 … 100 %RH) between 0 ... 40 °C (32 ... 104 °F). Measurement probe (HM42PROBE) shall be remote, connected to the indicator with a cable connection. Temperature sensor shall be a platinum 1000 Ω RTD with accuracy of ± 0.2 °C (0.36 °F) between 0 … +40 °C (+32 … +104 °F) with a measurement range of -40 … +100 °C (-40 … +212 °F). Indicator shall additionally be able to calculate and display dew point, wet bulb temperature, absolute humidity, mixing ratio, and enthalpy. The graphical LCD display shall feature multilingual menu-based user interface. Shall have the ability to be calibrated by the user in the field or offer an interchangeable, calibrated probe. Traceable calibration certificate included.

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HM46 Summary:

Relative humidity and temperature portable calibrator shall incorporate a thin film polymer capacitive HUMICAP® 180R humidity sensor and have accuracy of ± 1.5 %RH (0 … 90 %RH) and ± 2.5 %RH (90 … 100 %RH) between 0 ... 40 °C (+32 ... 104°F). Measurement probe (HM46PROBE) shall be remote, connected to the indicator with a cable connection. Temperature sensor shall be a platinum 1000 Ω RTD with accuracy of ± 0.2 °C (0.36 °F) between 0 … +40 °C (+32 … +104 °F) with a measurement range of -40 ... +100 °C (-40 ... 212 °F). The probe shall be capable of withstanding a temperature of up to +180 °C (+356 °F) for a short period of time. Indicator shall additionally be able to calculate and display dew point, wet bulb temperature, absolute humidity, mixing ratio and enthalpy. The graphical LCD display shall feature multilingual menu-based user interface. Shall have the ability to be calibrated by the user in the field or shall offer an interchangeable, calibrated probe. Traceable calibration certificate included.