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HMW92 Humidity and Temperature Transmitters for High Performance Building Automation Applications



Features/Benefits:

- Uses Vaisala HUMICAP® 180R humidity sensor
- Optional display available for local measurement readout
- Full 0 ... 100 %RH range with accuracy up to ± 1.7 %RH
- Temperature accuracy up to ± 0.2 °C
- (2) loop powered, configurable 4 ... 20 mA analog outputs
- Moisture parameters available: Relative humidity, dew point, mixing ratio, enthalpy, wet-bulb temperature, dew point depression, and absolute humidity
- Dip switch configuration for units, parameters, and scaling
- Discrete wiring through back plate
- User exchangeable humidity and temperature modules
- Simplified on site calibration options and adjustment through offset trimmers or PC connection
- Traceable calibration certificate included

Summary:

Wall mounted transmitter shall incorporate a thin-film polymer capacitive HUMICAP® 180R relative humidity sensor. Transmitter shall be rated for full range of 0 ... 100 %RH with accuracy of ± 1.7 %RH in the range of 0 ... 90 %RH and ± 2.5 %RH in the range of 90 ... 100 %RH for temperatures between +10 ... +40 °C (+50 ... +104 °F). Instrument shall be rated for temperatures between -5 ... +55 °C (+23 ... +131 °F) with temperature measurement accuracy of ± 0.2 °C between +20 ... +30 °C (+68 ... +86 °F). Transmitter to be loop powered by 10 ... 28 VDC ($R_L = 0 \Omega$) or 20 ... 28 VDC ($R_L = 500 \Omega$) and provide a linear output signal of 4 ... 20 mA corresponding to 0 ... 100 %RH. Temperature sensor shall be digital and provide a linear output signal of 4 ... 20 mA corresponding to -5 ... +55 °C (+23 ... +131 °F). Mechanical housing of transmitter shall be rated to IP30. Transmitter shall have the option to calculate and output parameters such as: relative humidity, temperature, dew point, mixing ratio, enthalpy, wet-bulb temperature, dew point depression, and absolute humidity. Transmitter shall have the ability to calibrate relative humidity, without disturbing operation, using a single point electronic field calibrator, or have an interchangeable humidity and temperature module with traceable calibration for easy maintenance. Traceable calibration certificate included. Available models are listed below:

Vaisala Model: HMW92 (Relative Humidity and Dry-Bulb Temperature)

Vaisala Model: HMW92D (Relative Humidity and Dry-Bulb Temperature with Display)

Vaisala Model: TMW92 (Dry-Bulb Temperature Only)

Note: *The HMW92 consists of pre-configured models that are a part of the [HMW90 Series](#). The HMW90 Series offers additional pre-configured models, as well as models to be fully configurable (output signals, output parameters, output scaling, etc.).*

HMW93 Humidity and Temperature Transmitters for High Performance Building Automation Applications

Features/Benefits:



- Uses Vaisala HUMICAP® 180R humidity sensor
- Optional display available for local measurement readout
- Full 0 ... 100 %RH range with accuracy up to ± 1.7 %RH
- Temperature accuracy up to ± 0.2 °C
- (2) configurable 0 ... 5/10 V analog outputs
- Moisture parameters available: Relative humidity, dew point, mixing ratio, enthalpy, wet-bulb temperature, dew point depression, and absolute humidity
- Dip switch configuration for units, parameters, and scaling
- Discrete wiring through back plate
- User exchangeable humidity and temperature modules
- Simplified on site calibration options and adjustment through offset trimmers or PC connection
- Traceable calibration certificate included

Summary:

Wall mounted transmitter shall incorporate a thin-film polymer capacitive HUMICAP® relative humidity sensor. Transmitter shall be rated for full range of 0 ... 100 %RH with accuracy of ± 1.7 %RH in the range of 0 ... 90 % RH and ± 2.5 %RH in the range of 90 ... 100 %RH for temperatures between +10 ... +40 °C (+50 ... +104 °F). Instrument shall be rated for temperatures between -5 ... +55 °C (+23 ... +131 °F) with temperature measurement accuracy of ± 0.2 °C between +20 ... +30 °C (+68 ... +86 °F). Transmitter to be powered by 18 ... 35 VDC or 24 VAC ± 20 % 50/60 Hz and provide a linear output signal of 0 ... 5/10 V corresponding to 0 ... 100 %RH. Temperature sensor shall be digital and provide a linear output signal of 0 ... 5/10 V corresponding to -5 ... +55 °C (23 ... +131 °F). Mechanical housing of transmitter shall be rated to IP30. Transmitter shall have the option to calculate and output parameters such as: relative humidity, temperature, dew point, mixing ratio, enthalpy, wet-bulb temperature, dew point depression, and absolute humidity. Transmitter shall have the ability to calibrate relative humidity, without disturbing operation, using a single point electronic field calibrator, or have an interchangeable humidity and temperature module with traceable calibration for easy maintenance. Traceable calibration certificate included. Available models are listed below:

Vaisala Model: HMW93 (Relative Humidity and Dry-Bulb Temperature)

Vaisala Model: HMW93D (Relative Humidity and Dry-Bulb Temperature with Display)

Vaisala Model: TMW93 (Dry-Bulb Temperature Only)

Note: The HMW93 consists of pre-configured models that are a part of the [HMW90 Series](#). The HMW90 Series offers additional pre-configured models, as well as models to be fully configurable (output signals, output parameters, output scaling, etc.).

HMW95 Humidity and Temperature Transmitters for High Performance Building Automation Applications



Features/Benefits:

- Uses Vaisala HUMICAP® 180R humidity sensor
- Optional display available for local measurement readout
- Full 0 ...100 %RH range with accuracy up to ± 1.7 %RH
- Temperature accuracy up to ± 0.2 °C
- Digital output supporting Modbus® RTU protocols
- Dip switch configuration for digital output settings
- Moisture parameters available: Relative humidity, dew point, mixing ratio, enthalpy, wet-bulb temperature, dew point depression, and absolute humidity
- Discrete wiring through back plate
- User exchangeable humidity and temperature modules
- Simplified on site calibration options and adjustment through offset trimmers or PC connection
- Traceable calibration certificate included

Summary:

Wall mounted transmitter shall incorporate a thin-film polymer capacitive HUMICAP® relative humidity sensor. Transmitter shall be rated for full range of 0 ... 100 %RH with accuracy of ± 1.7 % RH in the range of 0 ... 90 %RH and ± 2.5 %RH in the range of 90 ... 100 %RH for temperatures between +10 ... +40 °C (+50 ... +104 °F). Instrument shall be rated for temperatures between -5 ... +55 °C (+23 ... +131 °F) with temperature measurement accuracy of ± 0.2 °C between +20 ... +30 °C (+68 ... +86 °F). Temperature sensor shall be digital. Transmitter to be powered by 18 ... 35 VDC or 24 VAC ± 20 % 50/60 Hz and provide an RS-485 output signal supporting Modbus® RTU protocol. Mechanical housing of transmitter shall be rated to IP30. Transmitter shall have the option to calculate and output parameters such as: relative humidity, temperature, dew point, mixing ratio, enthalpy, wet-bulb temperature, dew point depression, and absolute humidity. Transmitter shall have the ability to calibrate relative humidity, without disturbing operation, using a single point electronic field calibrator, or have an interchangeable humidity and temperature module with traceable calibration for easy maintenance. Traceable calibration certificate included. Available models are listed below:

Vaisala Model: HMW95 (Relative Humidity and Dry-Bulb Temperature)

Vaisala Model: HMW95D (Relative Humidity and Dry-Bulb Temperature with Display)

Note: *The HMW95 consists of pre-configured models that are a part of the [HMW90 Series](#). The HMW90 Series offers additional pre-configured models, as well as models to be fully configurable (output signals, output parameters, output scaling, etc.).*