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GMW80 Series Carbon Dioxide, Temperature, and Humidity Transmitter for Demand Controlled Ventilation Applications

Features/Benefits:

- Superior stability with advanced proprietary CARBOCAP® technology
- Accurate measurements due to low self-heating of microglow light source
- Measures: CO₂ (0 ... 5,000 ppm), temperature (0 ... 50 °C), and relative humidity (0 ... 95 %RH). All parameters and ranges available are model dependent
- Features such as LED indication lights, metric display, and an integrated relay available on select models
- Analog (4 ... 20 mA, 0 ... 10 V) outputs or Modbus® RTU support over RS-485 (model dependent)
- Excellent long-term stability, even in buildings with 24/7 occupancy



Summary:

Carbon dioxide, temperature, and humidity wall mount transmitter shall incorporate a silicon-based CARBOCAP® NDIR sensor. Measurement ranges must be 0 ... 2,000 ppm or 0 ... 5,000 ppm CO₂, 0 ... 95 %RH, and 0 ... 50 °C (+32 ... +122 °F). CO₂ accuracy from 20 ... 30 °C (68 ... 86 °F) shall be ± (30 ppm + 3 % of reading). CO₂ stability in typical conditions must be ± (15 ppm + 2 % of reading) over 5 years. Temperature sensors to be digital or platinum 1000 Ω RTD (RTD only for "P" models). Accuracy of temperature measurements shall be ± 0.5 °C (0.9 °F) in the range of +10 ... +30 °C (+50 ... +86 °F) and ± 1 °C (± 1.8 °F) in the ranges of 0 ... +10 °C (+32 ... +50 °F) and +30 ... 50 °C (+86 ... +122 °F). Relative humidity sensor must be a thin-film polymer, capacitive INTERCAP® humidity sensor with accuracy in the range of +10 ... +30 °C (+50 ... +86 °F) to be ± 3 %RH from 0 ... 80 %RH and ± 5 %RH from 80 ... 95 %RH. Transmitter to be powered by 18 ... 35 VDC or 24 VAC. Analog output transmitters shall produce linear output signals of 0 ... 10 V or 4 ... 20 mA corresponding to 0 ... 2,000 ppm or 0 ... 5,000 ppm CO₂, 0 ... 100 %RH, and 0 ... 50 °C (+32 ... +122 °F) temperature. All models measure 0 ... 2,000 ppm and are have enclosures rated for IP30 conditions unless otherwise specified; available models and specifications are listed below:

Vaisala Model: GMW86P (CO₂ + T, analog outputs, Pt1000 RTD temperature sensor)

Vaisala Model: GMW83RP (CO₂ + T + RH%, voltage outputs, Pt1000 RTD temperature sensor)

Vaisala Model: GMW83RPC (CO₂ + T + RH%, voltage outputs, Pt1000 RTD temperature sensor, calibration certificate included)

Vaisala Model: GMW83DRP (CO₂ + T + RH%, voltage outputs, Pt1000 RTD temperature sensor, metric display)

Vaisala Model: GMW83DRPC (CO₂ + T + RH%, voltage outputs, Pt1000 RTD temperature sensor, metric display, calibration certificate included)

Vaisala Model: GMW83 (CO₂ + T, voltage outputs)

Vaisala Model: GMW83A (CO₂ + T, voltage outputs, indication LEDs for CO₂ levels)

Vaisala Model: GMW83D (CO₂ + T, voltage outputs, metric display)

Vaisala Model: GMW84 (CO₂ + T, current outputs)

Vaisala Model: GMW84S (CO₂ + T, current outputs, relay included)

Vaisala Model: GMW87 (CO₂, IP64, RS-485 Modbus® RTU output, measures 0 ... 5,000 ppm CO₂)

Vaisala Model: GMW88 (CO₂, IP64, analog outputs, measures 0 ... 2,000ppm or 0 ... 5,000 ppm CO₂)