

GMW45 Carbon Dioxide Transmitters for Demand Controlled Ventilation Applications



Vaisala CARBOCAP® Carbon Dioxide Transmitter GMW45 is a basic wall mount transmitter for demand controlled ventilation.

Features/Benefits

- Compact wall mount transmitter for demand controlled ventilation
- Incorporates Vaisala CARBOCAP® Sensor - the silicon-based NDIR sensor
- Excellent long-term stability
- Five year recommended calibration interval
- Easy-to-install

The wall mount Vaisala CARBOCAP® Carbon Dioxide Transmitter GMW45 is ideal for monitoring the air quality in public, commercial and residential buildings. By monitoring CO₂ in air with GMW45 and ventilating only on demand, indoor air can be kept fresh with no wasted energy.

Vaisala CARBOCAP® technology

The GMW45 transmitter features a silicon-based Vaisala CARBOCAP® Sensor. Due to its built-in reference measurement capabilities and simple structure, the sensor is extremely stable and reliable.

The temperature dependence of CARBOCAP® is negligible. In addition, the measurement accuracy of the sensor is not affected by dust, water vapor or most chemicals.

Easy maintenance

The recommended calibration interval for the GMW45 transmitter is five years. The use of the GMW45 results in considerable savings in energy consumption, maintenance and recalibration costs, and it ensures the best possible control of air quality.

Basic DCV transmitter

The GMW45 is a basic cost-effective CO₂ transmitter intended to be used in building energy management systems. It is easy to install. If CO₂ transmitters with additional measurements are required, Vaisala offers a wide variety of wall and duct mount CO₂, CO₂+T, RH and RH+T transmitters for demand controlled ventilation.

Technical Data

Carbon dioxide

Measuring range	0...2000 ppm CO ₂
Accuracy at +25 °C (+77 °F) against certified factory references	<±[40 ppm CO ₂ + 3% of reading] (includes repeatability and calibration uncertainty)
Non-linearity	<±1.0 %FS
Temperature dependence of output (typically)	0.15 %FS /°C
Long-term stability	<5.0 %FS /5 years
Recommended calibration interval	5 years
Response time (0...63%)	1 minute

Operating conditions

Operating temperature range	-5...+45 °C (23 ...113 °F)
Humidity range	0...85 %RH non-condensing

General

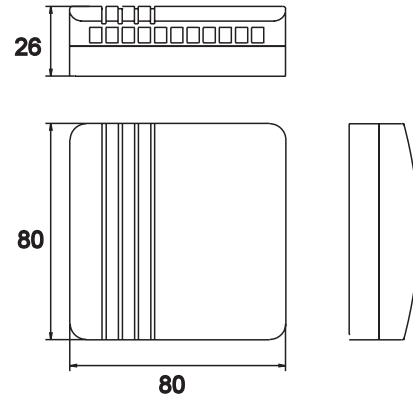
Output signals for CO ₂	Selectable 0...20 mA or 4...20 mA or 0...10 V 10 ppm CO ₂
Resolution of analog outputs	10 ppm CO ₂
Recommended external load: current output max. voltage output min.	500 Ohm 1 kohm
Power supply	nominal 24 VAC/VDC
Power consumption	<2.5 W
Warm-up time	1 minute 30 minutes full specification
Housing material	ABS plastic
Weight	75 g
Complies with EMC standard EN61326-1:1997 + Am1:1998 + Am2:2001; Generic Environment.	

Accessories

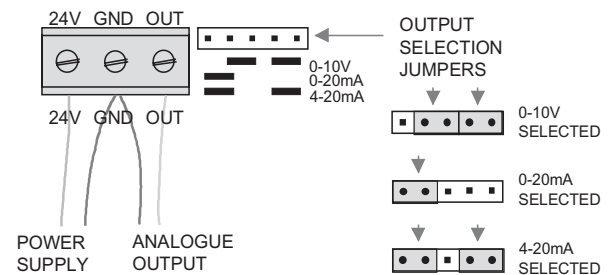
GM35001	Calibration pipe
19222GM	Calibration software kit (includes disk and serial COM adapter)
GM70	hand-held carbon dioxide meter
GM70 w/pump option	hand-held CO ₂ meter for field verification

Dimensions

Dimensions in mm



Wiring



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