

GMM20W Carbon Dioxide Module for Benign OEM Applications



Features/Benefits

- Incorporates the silicon based Vaisala CARBOCAP® Sensor
- Stable in terms of time and temperature
- Dust, water vapor or most chemicals do not affect the measurement accuracy of the sensor
- Small size enables easy integration into various systems

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Vaisala CARBOCAP® Technology

The GMM20W uses the silicon based Vaisala CARBOCAP® Sensor. The simple structure and reference measurement capabilities make this Single-Beam Dual-Wavelength NDIR sensor extremely stable and reliable. The CARBOCAP® sensor is not affected by dust, water vapor or most chemicals.

The use of the GMM20W carbon dioxide modules results in considerable savings in installation, operation, maintenance and recalibration costs and ensures the best possible quality of measurement.

Versatile module

The GMM20W Module is small in size and thus, easily integrated into various systems. The module is available for 0...2000 ppm, 0...5000 ppm, 0...10,000 ppm and 0...20,000 ppm ranges.

There are several output alternatives. In addition to the standard 0...20 mA, 4...20 mA and 0...10 V outputs, other options include a LonMarks® approved interface and a relay output. A display unit is available.

Technical Data

Carbon Dioxide

Measurement range	0...2000 ppm (nominal; can be recalibrated for other ranges: 0...5000 ppm, 0...10 000 ppm, 0...20 000 ppm)
Accuracy at +25 °C (+77 °F) against certified factory references	$\pm[30 \text{ ppm} + 2.0\% \text{ of reading}]$ (incl. nonlinearity and calibration uncertainty)
Non-linearity	<1% FS
Temperature dependence of output (typical)	<0.15 %FS/°C (<0.15 %FS/°F)
Long-term stability	< $\pm 5\%$ /5 years
Response time (0...63% response)	1 minute

General

Output signals	0...20 mA or 4...20 mA and 0...10 V
Resolution of analog outputs	0.5 %FS
Optional outputs	relay LonWorks® interface
Recommended external load	
current output	max. 500 Ohm
voltage output	min. 1 kOhm
Power supply	nominal 24 VDC/VAC (18...30 VDC)
Power consumption	<2.5 W
Warm-up time	1 minute, 15 minutes full specification
Operating temperature range	-5...+45 °C (+23...+113 °F)
Operating humidity range	0...85 %RH, non-condensing
Weight	45 g

Accessories

GMI21	display and relay option
GMR20	relay output option
GML20	LonWorks® interface option
19222GM	calibration software kit (disk and serial COM adapter)

Complies with EMC standard EN61326-1:1997 + Am1:1998 + Am2:2001, Generic Environment.

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Dimensions

Dimension in mm.

