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GMW116 Carbon Dioxide and Temperature Transmitter for Ventilation Control

The Vaisala CARBOCAP® Carbon Dioxide and Temperature Transmitter GMW116.

Features/Benefits

- Compact dual-parameter transmitter: measures both CO_2 and T
- Incorporates Vaisala CARBOCAP®, the silicon based NDIR sensor with unique internal referencing
- Advanced, single-beam, dual wavelength measurement with no moving parts
- Excellent long-term stability
- Ideal for ventilation control in all types of occupied spaces including those with around-the-clock occupancy
- No need for temperature compensation

The Vaisala CARBOCAP® Carbon Dioxide and Temperature Transmitter GMW116 is the compact-size transmitter that measures both carbon dioxide and temperature. The sensor is accurate and durable and it has an excellent long-term stability, which decreases maintenance.

The excellent performance of the Vaisala CARBOCAP® sensors results largely from the stable reference provided by the electrically tunable Fabry-Perot Interferometer (FPI).

In buildings with around-the-clock occupancy (e.g. hospitals, work-places, residential buildings, retirement homes), the assumed background CO_2 level reference is simply not applicable. The true internal reference measurement of Vaisala CARBOCAP® CO_2 transmitters provides years of stable CO_2 measurements.

The GMW116 Transmitter is designed especially for demand controlled ventilation applications with CO_2 measurement range of 0 … 2000 ppm and temperature range of 0 ... +50 °C.

With GMW116 there is no need for temperature compensation. The ideal gas temperature behaviour is taken into account automatically.

Technical data

Performance

CO_2-measurement range	0 ... 2000 ppm
Temperature measurement range	0 ... +50 °C
Accuracy (including repeatability, non-linearity and calibration uncertainty)	± (2 % of range + 2 % of reading
Long-term stability	± 5 % of range/5 years
Response time T90	1 min
Temperature dependence	compensated
Pressure dependence, typical	+0.15 % of reading/hPa
Temperature measurement accuracy	± 0.7 °C at 25 °
Warm-up time	1 min, 10 min for full. specification
Product lifetime	> 10 years

Operating environment

Temperature	0 ... +50 °C
Humidity	0 ... 85 % RH
Pressure	700 ... 1200 hPa
Electromagnectic compatibility	
Complies with EMS standard EN61326-1, Generic Environment	

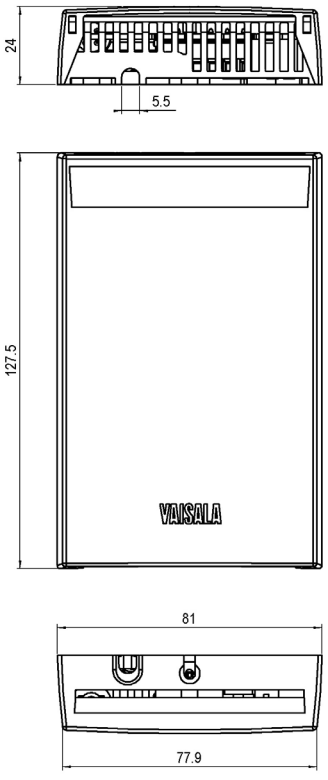
Inputs and outputs

Operating voltage	24 V (±20 %) AC/DC
Power consumption	<2 W
Outputs	0 … 10 V

Housing

Material	ABS/PC blend plastics
Weight	120 g
Cover and base colour	white RAL 9003
Fire resistance	UL94 V0
Ingress protection	IP30

Dimensions



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