

Bid Specification

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## **GMD110 Duct Mounted Carbon Dioxide Transmitter**



## Features/Benefits

- Uses CARBOCAP<sup>®</sup> technology to offer exceptional stability
- Measurement range of 0 ... 10,000 ppm  $CO_2$  with accuracy up to ± 40 ppm  $CO_2$
- Temperature measurement range of -20 ... +60 °C (-4 ... +140 °F)
- Supports analog (mA or V) or digital outputs (Modbus<sup>®</sup> RTU over RS-485)
- Heated sensor head to prevent condensation
- IP65 rated enclosure
- Available accessories: probe mounting flange, calibration adapter
- Compatible with Vaisala's Insight PC Software through USB connection. Ability to be field calibrated
- Traceable calibration certificate included

## Summary:

Duct mounted CO<sub>2</sub> transmitter for measuring carbon dioxide levels in air-handling systems and ventilation ducts. Transmitter shall incorporate a CARBOCAP<sup>®</sup> NDIR sensor. Infrared (IR) light source must be used in place of a traditional incandescent light bulb to extend lifetime of sensor. Accuracy (including repeatability and non-linearity) at 25 °C (77 °F) and 1013 hPa between 0 ... 3000 ppm CO<sub>2</sub> shall be  $\pm$  40 ppm CO<sub>2</sub>. Operating humidity range shall be 0 ... 95 %RH, non-condensing; sensor head shall have option to be heated to prevent condensation. Operating temperature range is -20 ... 60 °C (-4 ... 140 °F). Long term stability shall be  $\pm$  60 ppm CO<sub>2</sub>/yr between 0 ... 3000 ppm. Temperature and flow dependence on measurements are negligible. Accuracy is not affected by dust, water vapor, or chemicals. Available accessories shall include a probe mounting flange, as well as a calibration adapter for field calibration. Field calibration can be done using proprietary connection cables to the Vaisala Insight PC Software or the Indigo80 Handheld Indicator. Analog outputs shall be scaled 0 ... 5/10 V or 0/4 ... 20 mA and correspond to the selected output scaling; digital outputs shall be Modbus<sup>®</sup> RTU over RS-485. Operating voltage shall be 12 ... 30 VDC for digital or voltage outputs, or 20 ... 30 VDC with current outputs in use. Power consumption is typically 0.5 W and no greater than 1.1 W. Traceable calibration certificate included.