



CO₂ Gas Detector

This CO₂ Detector measures CO₂ levels every second in ppm.

The detector transmits the latest CO₂ levels value and alarm status using RS485 Modbus RTU communications whenever requested by a local or remote BMS/SCADA system.

The detector also provides one on/off volt free changeover alarm contact (3A) to control a local audible alarm, visual beacon or ventilator when the measured value exceeds a preset relay activation level.

The alarm relay can be selected to lockout after an alarm which then requires a remote reset command via the RS485 communications to clear the alarm relay contacts back to normal operation. An alarm can be set to automatically clear when the level is below the relay de-activation level setting.

Two further alarm level settings and states may be set up for remote alarm level indication and messages using RS485 communications. These alarms are automatically reset when the level is below the alarm clear setting.

Features

Non-Dispersive Infra-Red Technology / Accurate & Reliable level measurement in ppm. / 1 Relay Output 2 Alarm/Warning Level Settings / Volt Free C/O Relay Contact Example use - fans, beacon or plant shut down / Relay lockout option with remote reset / RS485 Modbus RTU communications / Programmable setpoints & timers / Address selection by internal button & LED. / Wall mounts with 4 screws / 12/24 vdc supply required.

Specification

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| Target Gas | Carbon Dioxide |
| Operating Principle | Non-Dispersive Infra-Red |
| Measurement Range | 0-5000ppm |
| Accuracy | +/- 30ppm, +/- 3% of reading |
| Response Time | 20 second diffusion time |
| Rate of Measurement | 0.5 Hz |
| Operating Temperature | -20°C to + 70°C |
| Operating Humidity | 0-95% RH Non Condensing |
| Storage Temperature | -30°C to + 70°C |
| Housing | Metal Enclosure |
| Wall Mount | Secured by 4 screws |
| Dimensions | 130mm (L) x 62mm(W) x 40mm (H) |
| Power Supply | 12/24 vdc 0.2A |
| Warm Up Time | 1 minute |
| Stability | <2% FSD |
| Life Expectancy | 10-12 years |
| Maintenance | Maintenance-free with built in ABC logic for self-calibration. |
| Serial Communications | RS485 Modbus RTU at 19200 baud |
| Changeover Relay | 230 vAC 3A Max |
| Relay | De-energise for Alarm Auto or Manual Reset Selection |
| Compliance | RoHS Directive 2002/95/EG Immunity EN61000-6-3 2007 Emission EN61000-6-2-2007 |
| Standard | CE Approved |