

GD233 SINGLE POINT INFRA-RED CO₂ CARBON DIOXIDE GAS DETECTOR

TQ
Environmental plc

FEATURES

- Infra-red stand alone pre-calibrated CO₂ gas detector
- Standard range 0-2% with factory pre-set alarm levels at 0.5% and 1.5%
- Multi colour LED array for indication of gas concentration
- Low maintenance, ultra stable, long life Infra-red technology.
- 12-24V DC powered. 4-20 mA and 2 alarm relay versions available
- Onboard auto zero facility.
- Gas concentration continuously monitored, indication via 8 x LED array.
- Wide temperature range



Stand alone, single point CO₂ detector and alarm unit, ideal for small installations. The GD233 operates on tried & tested infra-red adsorption principle, ensuring both accuracy and reliability. The sensor is immune to poisoning and high gas concentrations and has built in over range indication should the ambient gas concentrations exceed the sensor range. Designed as a single point self contained unit but can be connected to a central control panel for group alarms. With a rugged construction, the GD233 is a versatile and robust instrument incorporating proven technology.

The GD233 is used to detect the presence of Carbon Dioxide gas in the workplace.

The LED multi colour array shows increasing CO₂ levels and alarm trigger points.

The GD233 is used for diffusion sensing applications, where the sensor is positioned at the point of monitoring and the gas diffuses through the sensor's optical path. These sensors are not affected by being over range and can be used in inert atmospheres.

Integral alarm relays, with 2 distinct trigger points can be used to start extraction fans and trigger alarm beacons.

Alternatively the 4-20 mA outputs from a group of sensors could be connected to a TQ 4000 control panel or similar third party control system capable of providing indication of concentration levels and group alarms if required.

RS485, MODBUS output available for remote monitoring via an optional add on module.

The GD 233 is a low maintenance sensor but has full auto zero function so requiring no calibration in the field.

TQ Environmental Plc, operate a policy of continual product development which means the specification is subject to change without prior notice.



Cert No. LRQ 0958602

D1-GD233-0711

SPECIFICATION	
Construction	ABS, wall mounting enclosure, c/w fitting kit.
Indication	9 x LED multi colour array, with distinct alarm trigger points.
Ingress Protection	IP43, increased ingress protection can be provided
Cable Entry	M12 gland entries, glands not supplied.
Weight	0.5Kg
Overall Dimensions	100mm W x 150mm H x 60mm D
Temperature Range	-30° to +50°C
Humidity Range	0 to 99% R.H (non condensing)
Outputs	All versions have LED visual indication of CO ₂ levels Option 1, 4-20mA source into 600 ohms. Option 2, 2 x relay output version (C & NO contacts)
Power	Operating voltage 24VDC (can be supplied from 12 v DC, if 4-20 mA output is not required. Operating Current 75mA @ 24VDC.
Accuracy	+/- 2% (4-20 mA version)
Gases and Ranges	Standard range 0 - 2% v/v CO ₂ (20,000 ppm) Other ranges available 0 - 5,000 ppm 0 - 10,000 ppm
Response Time	<10 seconds to T50, <20seconds to T90
Built-in Self Test	Continuous
Non-Intrusive Adjustments	Calibrated for up to 3 years, with manual auto zero
Life expectancy	>5 years
Warranty	12 Months

PARTS LIST

340-261	GD233 IR Sensor Carbon Dioxide 0-2% Vol monitor. Multi colour LED array. C/W 4-20 mA analogue output.
340-262	GD233 IR Sensor Carbon Dioxide 0-2% Vol monitor. Multi colour LED array. C/W 2 x volt free, preset alarm relays.
340-264	Wall plug type mains power supply for GD231 and GD133 model gas detectors.

Other ranges and alarm trigger points are available on request . Alarms can be configured latching or non latching.