

Status Scientific Controls

Gas Detection Technology



FGD14 Safe Area Gas Detector

For Detection of Oxygen, Toxic and Flammable (Hydrocarbon) Gases



Features

- Mains version – 85 to 265v ac, 47 - 440 Hz
- DC supply version – 8 to 24 volts dc
- Remote visual and audible alarm unit
- Contains 2 control relays
- Plug-in replaceable gas sensors
- Optional weatherguard

The FGD14 series detector is a safe area fixed gas detector for the detection of gases such as oxygen (deficiency), carbon monoxide, carbon dioxide, sulphur dioxide, hydrogen sulphide, chlorine etc. and includes a remote indicator unit.

The carbon dioxide version uses the latest type of miniature **infrared** gas sensor technology.

It contains 2 control relays enabling it to be used as a stand-alone detector and controller in a range of applications

An optional weather guard is available for installations exposed to the atmosphere or contaminants and reduces the possibility of water or other contaminants entering into the gas sensor thereby improving the overall reliability of the gas detector in harsh environments



Available gas types & sensor ranges

GAS TYPE	SENSOR TECH	RANGES AVAILABLE
Ammonia	Electrochemical	0-100ppm 0-1000ppm
Carbon Dioxide	Infrared	0-2% 0-5% 0-100%
Carbon Monoxide	Electrochemical	0-500ppm
Chlorine	Electrochemical	0-20ppm
Hydrogen	Electrochemical	0-100% LEL 0-1000ppm
Hydrogen Sulphide	Electrochemical	0-50ppm
Nitric oxide	Electrochemical	0-20ppm
Oxygen	Electrochemical	0-21% 0-25%
Sulphur Dioxide	Electrochemical	0-20ppm

APPLICATION	GAS HAZARD
Confined spaces	Oxygen deficiency
Swimming pools	Chlorine
Boiler rooms, car parks	Carbon monoxide
Breweries and cellars	Carbon dioxide
Food processing & drinks	Carbon dioxide
Building health management	Carbon dioxide
Greenhouses	Carbon monoxide, carbon dioxide, oxygen
Animal processing	Ammonia



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Specification

Materials	Bayblend (ABS and Polycarbonate blending)
Cable entries	1 x M20 or ½" NPT or ¾" NPT (for mains input) 1 x M12 (for connection to Remote Unit)
Weights	FGD14 (excluding weatherguard) – 900grams Weatherguard – 225 grams
Gas types	Oxygen or Toxic
Supply voltage	Mains Version - 85 to 265 volts ac, 47 to 440Hz DC Version - 8 to 24 volts dc
Alarm set points	2 user adjustable set points – adjustable ranges dependant on gas type
Alarm relay outputs	Voltage free, single pole change-over contacts. User selectable for either normally energised or normally de-energised operation
Alarm contact rating	1A, 30Vd.c. non-inductive load
Visual alarm indication	Flashing red LED on front panel and on remote indicator unit
Audible alarm indication	Intermittent alarm tone on front panel and on remote indicator unit
Sensor types	NDIR Infrared or Electrochemical
Measurement range	Dependant upon sensor type
Response time	Sensor response times vary according to the sensor type.
IP rating	Enclosure IP66, Sensor IP65
Operating temperature	- 10 to +40 °C
Storage temperature	- 20 to +50 °C
Humidity range	0 to 95% RH non-condensing
Operating pressure	Atmospheric + or - 10%
Dimensions	122mm x 142mm x 75mm

Warning

These gas detectors must only be used in applications where there is no risk of potentially explosive gases being present or of them being created through industrial processes or other activities within the area concerned.