

# 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

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