OX-AN®
Environmental Monitoring Solutions Since 1980

Brownfield and Landfill Gas Monitoring System Datasheet

Our Brownfield and Landfill Site Gas Detection Systems are designed for personnel safety monitoring in:

- Housing Developments on Brownfield Sites
- Retail and Office Parks
- Sports and Leisure Sites
- Sheltered Housing
- Industrial Buildings
- Public Building Developments

Since 1993, we have been providing purpose built gas monitoring solutions for buildings constructed on brownfield and old landfill sites.

Methane, Carbon Dioxide and Oxygen from disused industrial sites, power stations, mine workings or landfill sites may, if undetected, pose a potentially serious risk to anyone living or working nearby. It is essential that such risks be minimised by the use of continuous and accurate gas monitoring within all voids, cavities, rooms and cupboards.

The system offers a cost effective, accurate and reliable solution for the continuous sampling of these potentially harmful gases from contaminated sites.

How the Landfill/Brownfield Gas Detection System works

The systems use infrared sensors to measure the concentration of Methane and Carbon Dioxide and an electro-chemical fuel cell sensor for Oxygen.

Our system can monitor up to twelve spaces or compartments from a single installation. Air is sampled from each compartment through a series of solenoid valves via a highly reliable diaphragm pump on a 3 minute time-shared basis. The system is designed to operate continuously with service intervals of one year.

When a gas concentration greater than 0.5% Methane or 1.0% Carbon Dioxide is detected, the system will remain sampling from that area enabling the readings to be observed until the concentration falls or the system is reset.

The system is set to trigger the warning amber LED arrays if gas levels go above 0.5% Methane or 1.0% Carbon Dioxide and trigger the full system alarm red LED arrays and 90dB sounder should the gas levels exceed 1.0% Methane and 1.5% Carbon Dioxide.

A fast cycle override makes it possible to check the gas concentrations in all areas at one minute intervals when the need arises.

The analyser may sample air from any part of the building whether accessible or not. This is useful to detect ingress of gas through the slab by positioning the sample pipes in positions such as the mains water and electricity inlets. This is usually agreed at the planning stage with the Architects or Consultants.

Key Features of the OX-AN® Landfill/Brownfield Gas Monitoring System

- Digital control and set-up of all functions
- Recall of alarm events: zone, gas concentrations, date and time
- Monitors up to 12 locations
- Two stage alarm outputs with 3 amp volt free relays to switch on ventilation fans
- Clear indication of alarm zone on large LED display
- Sample point isolation
- The system does not introduce any spark risk in the monitored areas
- Print on demand function documents time stamped event

Technical Details

Range:	0 - 3% Carbon Dioxide 0 - 5% Methane 0 - 25% Oxygen
Voltage:	240V ac 110 V ac option, state on order
Current	Rating: 3 amps
Output:	2 x 3 amp single pole changeover relays (volt free contacts)
Display:	Function: 2 x 16 back illuminated liquid crystal display
Zone:	2 x 1.5" 7 segment LED display
Alarm:	Matrix of 5mm red LED's
Warning:	Matrix of 5mm amber LED's
Area safe:	Matrix of 5mm green LED's
System Status LED's:	
Fault:	System fault has occurred
Isolated:	One or more sensors isolated
Muted:	Sounder is muted
Slow Cycle:	System in slow cycle mode
Print Pending:	Event is ready to print
Healthy:	System is powered & functional
Warning Sounder:	85 dB @ 1 M
Mute:	External momentary push button
Pneumatic Pump:	Double head diaphragm pump
Zone Sampling:	Normally closed solenoid valves
Vacuum Test:	Automatic test for pump operation and plumbing integrity
Sample Points:	Monitors up to 12 locations
Sample Line Length:	Up to 150 metres
Enclosure Sizes:	53cm high x 45cm wide and 28cm depth from wall

For more system details download the user manual from the resources page on our website

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