

This specification meets BSRIA Specification Section W55

Main control panel

The OX-AN® gas monitoring control panel is complete with visual display for area safe by a matrix of green LED's, warning of first level alarm by a matrix of amber LED's and full system alarm with matrix of red LED's and a 90db panel sounder.

A pair of large 7 segment LED indicators illuminates to indicate the sensor an event has occurred. A set of system status LED's and LCD are available for viewing actual oxygen levels are fitted.

The system status LED's indicating:

Fault	System fault has occurred
Isolated Sensor	One or more sensors are isolated
Sounder Muted	Sounder is muted
Slow Cycle	System is in Slow Cycle mode
Print Pending	An event is ready to print
System Healthy	System is powered and functional



An external push button is fitted to mute the system; the mute time can be adjusted to suit the application. The system has contacts to connect to the warning device; these are wired back to the main panel. The mute button mutes the panel sounder and the external sounders in the warning beacons, leaving the beacon flashing until the levels are safe and the system reset.

A panel printer is fitted that logs alarms; this doubles up for hard copy report on undertaking due diligence test, this should be undertaken by the client at least monthly.

An external push button is fitted to reset the system; when the system has been reset, the event is logged to the print facility, but requires access by key to the panel to print on demand the alarm date, time, zone and actual gas levels.

Alarm levels can be adjusted to suit the site conditions. The default alarm levels are 20.5% Oxygen for the first non-latching amber warning and 19.5% Oxygen for the main latching red alarm warning level.

The enclosure is made from polyester and is double insulated and rated to IP55. The enclosure size is 40cm high x 30cm wide and 17cm deep.

The main panel colour is RAL 1006 Maize Yellow.

The system is CE compliant. The CE Certificate is issued with the as finished document file.

Voltage to the panel is 240 V ac. The current for the panel and driving the sensors is less than 3 amps.

The panel has 3 amp volt free contacts to connect to other equipment and fan controls.

The system has connections for the BMS System, SPCO contacts for first alarm warning, main alarm warning and system fault.

Gas sensors

The sensor housings measure 10cm high x 10cm wide and 8 cm deep. The colour is maize yellow RAL 1006.



Oxygen sensors measuring in the range 0-25% are the electro-chemical fuel cell type with on board electronics to drive a 24-v dc 4-20mA loop that connects to the main panel. The enclosures are polycarbonate with an IP55 rating, excluding the sensor orifice.

The oxygen sensor life is 2 years, these are replaced on an annual basis to give continuous safe monitoring, oxygen sensors are fail safe, if the electrochemical cell fails it will lose its signal and the instrument will detect a failing alarm level. Should the wires be accidentally cut between the sensor transmitter and the main panel, the main panel will go into red alarm mode.

Warning beacons



Wall mounted red or blue dependant on whether laser lab or not, rotating warning beacon with internal 85db sounder will be fitted as specified to warn personnel. The sounder and beacon are wired on a separate conductor allowing the sounder to be muted from the main panel. The device is rated at IP65.

The warning device measures 13cm diameter and 20cm high. The recommended height for the warning devices is 250cm ffl

Warning signs



Inside labs

We will supply and fit lab specific A4 sized warning signs to be mounted adjacent to each warning beacon assembly.



Outside labs

Field wiring

The system requires a 3 amp un-switched fused outlet adjacent to the main panel.

The field wiring for the oxygen sensors is .75mm² 1 pair screened signal cable and for the beacon sounder assemblies 4 core .75mm² YY control cable. We use low smoke halogen free cable.

Commissioning

Upon completion of the installation, the system will be calibrated and commissioned with test gases being applied to each sensor point to trigger the low and high level alarms. Printouts will be supplied with the commissioning sheet.

Declaration of Conformity

We will supply with the documentation pack Declaration of Conformity Certificates for the EC Directives 73/23/eec Low Voltage Electrical Equipment (LVD) and 2004/108/ec Electromagnetic Compatibility.

Operation and Maintenance Manuals

Hard copy operation and maintenance manuals will be supplied.