

Carbon Monoxide Monitoring

Carbon monoxide monitors should be considered where CO is present. CO is a toxic, colourless, odourless, and tasteless gas. Carbon monoxide is also classified as a flammable gas. Therefore flammable (LEL) monitoring should also be considered. For more information, please see LELSAFE- flammable (LEL) & GAS SAFE - multi gas systems.

At brief exposure to CO symptoms of headaches, nausea, vomiting, vertigo, alteration in consciousness and subjective weakness have been reported. Exposure to higher amounts may cause problems with movement, weakness, confusion, lung, heart problems and even loss of consciousness leading to death. Following exposure symptoms can develop and remain for up to 40 days following.

To determine if you need carbon monoxide monitoring, a risk assessment of the area and activities should be carried out. If the risk assessment identifies that long term workplace exposure limit (20ppm for 8 hours*) or short-term workplace exposure limit (100ppm for 15 minutes*) are calculated, you require a carbon monoxide monitor. However, a required risk assessment often does not cover specific areas where a leak may occur (such as directly next to CO storage tank) and even in situations in which carbon monoxide concentration does not reach life-threatening levels, the effect of CO levels on the health of working personnel is still a major health and safety concern.

*Health and Safety Executive, EH40/2005 Workplace Exposure Limits (Fourth Edition 2020)

Series Overview

Britannia's solution for carbon monoxide monitoring and alarming is the COSAFE Series. Whether it be a standalone single zone sensor, or up to a 32 multi-zone system a solution is available.

The range of COSAFE units allows a bespoke and cost-effective solution depending on your requirements.

COSAFE Standalone– Standalone, single sensor carbon monoxide monitor with advanced options

COSAFE Multi-zone– Multi-zone touch screen system, up to 32 sensor oxygen monitors with advanced features

Sensor Details

The CO sensor used is an electrochemical cell that continuously operates and monitors by diffusion. The cell has an approx. life span of 6 years but requires routine calibration to maintain accuracy.



Figure 1-Multizone - Touch Screen & Sensing Unit



Figure 2 – COSAFE Standalone w/ Display option

COSAFE Series

Models	Sensors	Range/Accuracy	Features
Standalone	1 x built in Sensor	- Range: 0-300ppm (Others are available on request) - Accuracy: $\pm 5\%$	- Power & Status Indicators - Internal Sounder - Supplied with 1 remote alarm (sounder & xenon) - LCD Display (Optional) - Analogue Output (Optional) - Additional Single Relay (Optional) - Wireless Transceiver (Optional)
Multi-Zone	Up to 32 sensing units	As Standalone	+ 7-inch coloured touch screen + Dual Relay + user interaction is very intuitive + up to 32 remote zones + Sensor measurement data is recorded + Graphing of data is available + User levels can be assigned that are password protected. + Audit trail is recorded + Up to 8 configurable relays typically used for. - Supply Tank Shut Off feature - Supply Tank Override - Fan control - Activate Klaxons/ additional remote alarms - Connect to Building Management Systems

Additional Hardware Options

Hardware Option	Usage
LCD Display	LCD Display installed on the sensing unit to show the gas concentration
Analogue Output	Output to monitor the gas concentration on third party equipment
Additional Single Relay	Additional Relay to control other items of equipment
Battery Back-up	Allows the unit to stay operational if the power supply is interrupted
Remote Alarms & Klaxons	Additional remote alarms to warn of any alarms (all entrances should have a remote alarm)
Remote alarms with Displays	Inclusion of a display to the remote alarm to indicate gas measurement
PIR	An infrared (IR) light sensor that once triggered by objects in its field of view can activate/deactivate. - Fans (Ventilation & Extraction) - Remote Alarms & Klaxons - Door Locks
Emergency buttons/ key switches	An emergency button or key switch that once operated can activate/ deactivate. - Fans (Ventilation & Extraction) - Remote Alarms & Klaxons - Door Locks
Ventilation + Extraction	Wall mounted or Inline fans to provide ventilation to remove hazardous gases or deliver fresh air.
Wireless Hardware	Additional wireless hardware that allows the sensing zones and remote alarms to be installed without long cable runs.
Perspex stand	Stand to house portable units
Secondary Touch Screen	Touch screens with restricted functionality, that display the gas concentration
Britannia's Wireless Monitoring System	Wireless monitoring system to allow thorough logging and analysis for the gas measuring data.

For any site-specific requirements, please contact Britannia.



WolfLabs

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

www.wolflabs.co.uk

Tel : 01759 301142

Fax : 01759 301143

sales@wolflabs.co.uk

Please contact us if this literature doesn't answer all your questions.