# Gas Safety Products **CO2 SENSOR AVG**





## Installation, operation and maintenance



Read these instructions carefully before operating or servicing



\* The unit should be installed by a competent person only

\* The expected life time of the detector/sensor element is 10 Years

\* The unit should be stored in cool, dry conditions

\* We do recommend that this product is serviced annually

\* If the unit is found to be damaged – Contact your supplier.

\*During the first 24 hours of installation, the unit will continue to adjust its calibration to the ambient CO<sub>2</sub>. During this time, you may notice slight variations in the PPM readings of CO<sub>2</sub> displayed on the monitor.

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## 1 General Information

The Merlin CO2 AVG Monitor has a TFT display to show the user a clear and precise reading of the  $CO_2$  level in the room and average  $CO_2$  level over 24 & 8 hours. The monitor also provides statistics for the highest reading over a 24 hour period along with a colour system indicating the air quality in the area.

## 2 Installation & Connection

## 2.1 Mounting the CO2 Sensor

The control panel is designed for surface mounting using 2 mounting screws. Removing the back plate gives access to the circuit board. Do not attempt to remove the PCB.

## 2.2 CO2 AVG Circuit Board



## 2.3 Mains Supply (1) [L N POWER]

A 240-volt electrical supply should be supplied to the panel. This should be externally fused at 3 Amps.

## 2.4 Alarm Relay (2) [ALARM]

This will switch over should the level of CO<sub>2</sub> rise above 1300ppm and automatically switch back once the levels have dropped below 1250ppm.

## 2.5 Pre Alarm Relay (3) [PRE-ALARM]

This will switch over should the level of  $CO_2$  rise above 1000ppm and automatically switch back once the levels have dropped below 950ppm.

#### Operation 3

#### 3.1 How to turn the system on and off

- 1. To turn on the Merlin CO2 AVG monitor you need to supply 240V into the [L N POWER] terminal.
- 2. When initialising is complete, the screen will show CO2 levels in the room.
- 3. To turn off the Merlin CO2 AVG monitor you need to turn the power supply to the panel off or disconnect the fuse spur.

#### **Screen Colour Indicator** 3.2

#### GREEN 3.2.1

Good air quality, <1000ppm CO<sub>2</sub>

#### 3.2.2 AMBER/ORANGE

Moderate air quality, 1000 - 1300ppm CO<sub>2</sub>

#### 3.2.3 RED

Poor air quality, >1300ppm CO<sub>2</sub>

#### 3.3 **Brightness Mode**

By touching and holding the centre of the S&S logo (fig1) on the case for approx. 3 seconds. After this time the user is able to select through five different brightness modes.



Fig1

To switch between modes, press and release logo.

To select the desired mode (fig2), release logo, after 5 seconds the mode will be set.





AUTOMATIC ADJUSTMENT According to the light level in the room.





## 4 End of life

10 years after first installation, the unit will display an "end of life" message. This is the expected life time of the  $co_2$  sensor element.

Relays and brightness modes will still operate as normal but CO2 values will not be displayed. Please contact your supplier.

# INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT

When this product has reached the end of its life it must be treated as Waste Electrical & Electronics Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used. Please contact your supplier or local authority for details of recycling schemes in your area.

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