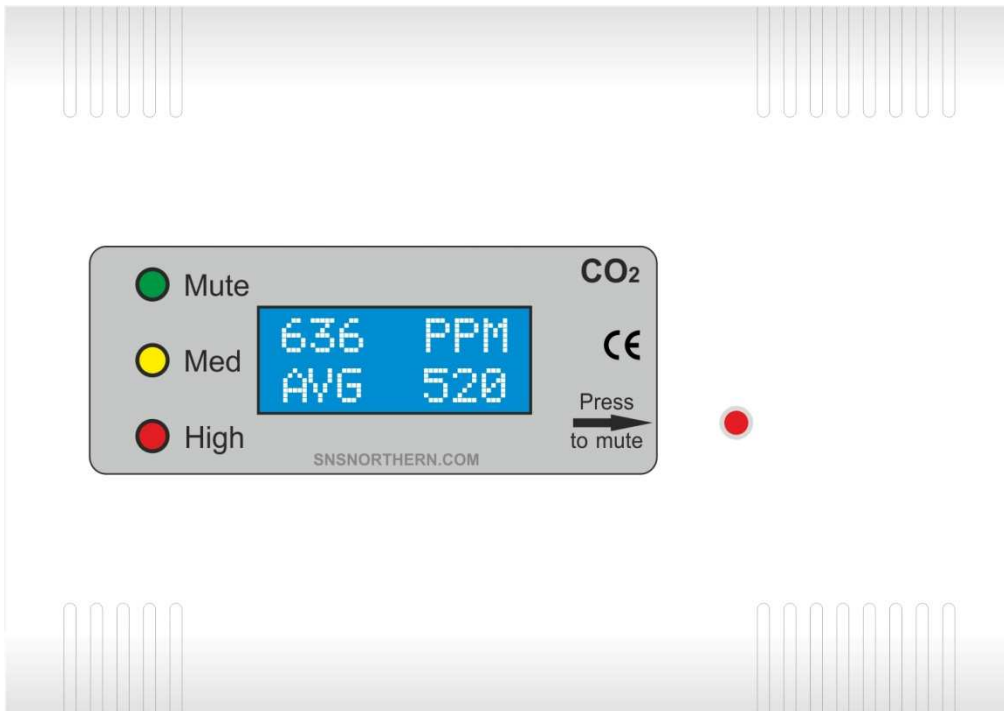


Gas Safety Products

Merlin CO₂ Monitor Avg



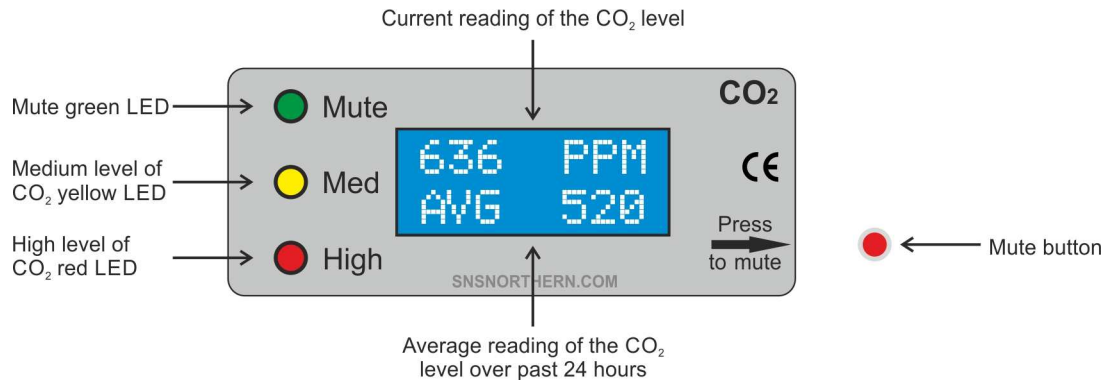
Installation, operating and maintenance

24/07/2017

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CO₂ Monitor Front Panel View



1 General information

The Merlin CO₂ Monitor has a LCD display to show the user a clear and precise reading of the CO₂ level in the room (refreshes every 3 seconds) and the average CO₂ level over past 24 hours (refreshes every 10 minutes). Also, the traffic light colour system indicates the air quality in the area.

2 Installation

- 2.1.1 Mounting the CO₂ Monitor.** 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.
- 2.1.2 Mains Supply.** A 110-240 volt electrical supply should be supplied to the panel. This should be externally fused at 3 Amps using a fused spur and should be connected to the terminals marked "LN Power"
- 2.1.3 Audible Alarm.** There is a dip switch on the circuit board to activate or de-activate the in-built audible alarm. (On = on & 1 = Off). This will sound at 1500ppm if enabled.
- 2.1.4 Mute button.** There is a push button located on front of panel to activate or de-activate the audible alarm. Once de-activated the audible alarm will not sound for 12 hours. The audible alarm will not sound up to 1500 ppm whether or not the Mute button is activated or de-activated.

3 Operation Instructions

3.1 How to turn the system on and off

- To turn on the Merlin CO₂ monitor you need to supply 110-240V into the "L & N POWER" terminal, this will then illuminate the blue LCD screen and initiate a 60 second countdown. When the countdown is complete the LCD screen will show CO₂ levels in the room.
- To turn off the Merlin CO₂ monitor you need to turn the power supply to the panel off or disconnect the fuse spur.

3.2 Explanation of LED status

3.2.1 Mute (Green) LED

Green – mute of audible alarm, $1500 \text{ ppm} < \text{CO}_2 < 9999 \text{ ppm}$

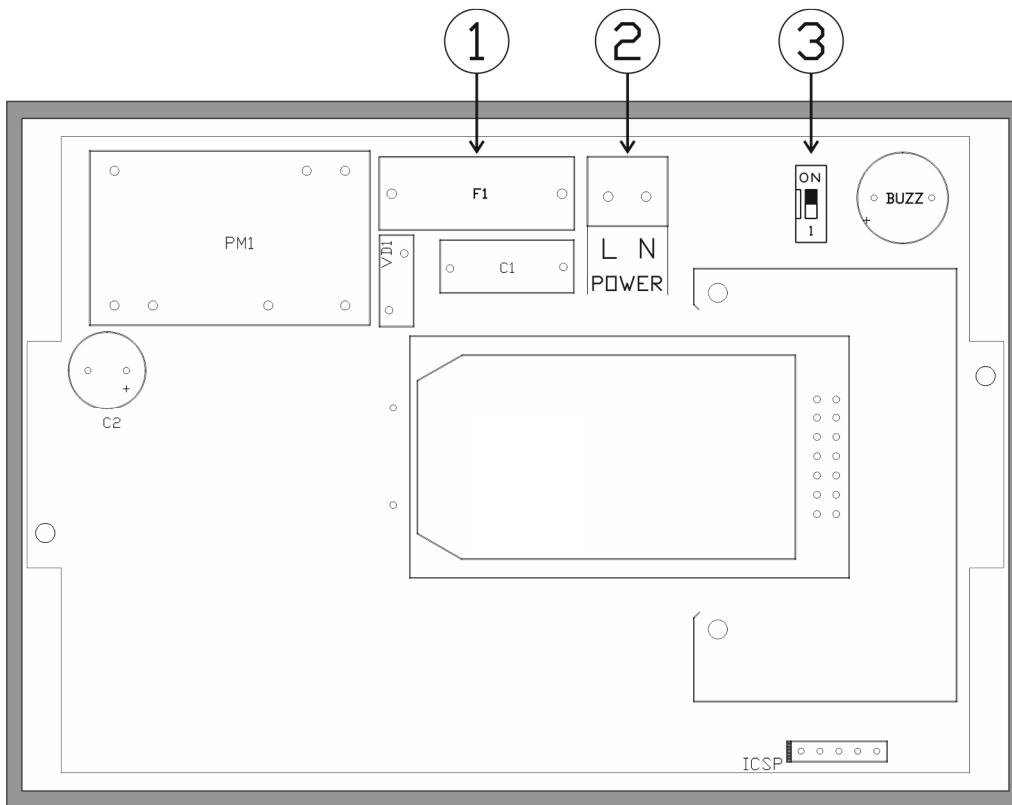
3.2.2 Medium (Amber) LED

Amber - Medium level, $1500 \text{ ppm} < \text{CO}_2 < 2800 \text{ ppm}$

3.2.3 High (Red) LED

Red – High level, $2800 \text{ ppm} < \text{CO}_2 < 9999 \text{ ppm}$

CO₂ Monitor Wiring Diagram



1. Fuse 5x20, 500mA/250V AC
2. Input 110-240V AC/50-60Hz, L & N
3. Audible alarm switch, ON = ON / 1 = OFF

4 Specifications

Power supply	100-240VAC, 50-60Hz (Max 1.9VA without load)
Gas Sensor Type	Carbon dioxide NDIR Infrared gas module
Typical measuring range	0 ~ 9999 ppm (resolution 1ppm)
Accuracy	± 50ppm ± 5%
Warm up time for each turning-on	1 minute
Medium level of CO ₂ (yellow LED)	1500 ppm – 2800 ppm
High level of CO ₂ (red LED)	2800 ppm – 9999 ppm
Audible alarm	1500 ppm – 9999 ppm
Storage Conditions	-40 - 70 °C (-40- 158 F); 0 - 95%RH, Non Condensing
Operation Conditions	0 - 50 °C (32- 122 F); 0 - 95%RH, Non Condensing
Net weight	221g
Dimensions	135(W)x95(H)x38(D)mm 5.3(W)x3.7(H)x1.5(D)inch
Standard Approval	CE
Installation standard	Wall mountable
Version	CO2 Monitor AVR v1.0

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