

Gas Safety Products

Merlin Gas Detectors



Read these instructions carefully before operating or servicing.



Installation, operating and maintenance





The unit should be installed by a competent person only.



The expected life time of the detector/sensor element is:
LPG & NG = 10 years. CO = 5 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 us.



Carbon Monoxide (CO). This apparatus is designed to protect individuals from the acute effects of carbon monoxide exposure. It will not fully safeguard individuals with specific medical conditions. If in doubt consult a medical practitioner.

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1 General information

American Gas Safety LLC supply a full range of remote gas detectors to compliment the Merlin range of panels. These consist of carbon monoxide, natural gas, lpg and oxygen detectors.

Our range of gas detectors are designed to work with a Merlin control panel.

It is recommended that the user reads this guide before using the system. Please do NOT attempt to operate the unit until the contents of this document have been read and are thoroughly understood.

2 Installation

2.1 Mounting the Merlin gas detector. The detector is designed for surface mounting using a single gang rough in box. Removing the back plate gives access to the circuit board. Do not attempt to remove the PCB.

2.2 Positioning of specific gas detectors please see below.

Natural Gas Sensor – 12inch from the ceiling.

Carbon Monoxide Sensor – 60inch from ground level.

LPG Sensor – 12inch from the ground level.

Oxygen Sensor – 60inch from ground level.

2.3 Power Supply. A 12vdc electrical supply should be supplied to the detector from the Merlin panel from the “Gas Detector” terminals and should be connected to the terminals marked “+”.

2.4 Alarm Relay. The Merlin range of gas detectors can work with various systems. If you are using the GDP range you will need to use the “C/L” terminal as an alarm relay whereas on most systems gas detectors should be wired to the gas detector terminal on the Merlin panel using the “N/C” & “COM”.

Note: all low voltage connections should be made using a screened cable to avoid electrical interference.

3 Operation Instructions

3.1 How to turn the system on and off

1. To turn on any Merlin gas detector you need to supply power to the detector
2. To turn off any Merlin gas detector you need to remove power to the detector

3.2 Explanation of LED status

3.2.1 Power LED

When the system is connected to the power supply, the Green Power LED will illuminate.

When no power is present, this LED will not light up.

GREEN = OK

OFF = No power to the gas detector or the fuse may not be intact.

3.2.2 Low LED

When the gas detector has reached the low level alarm state this will illuminate Amber. Please see Heading 4 on page 4 for further information.

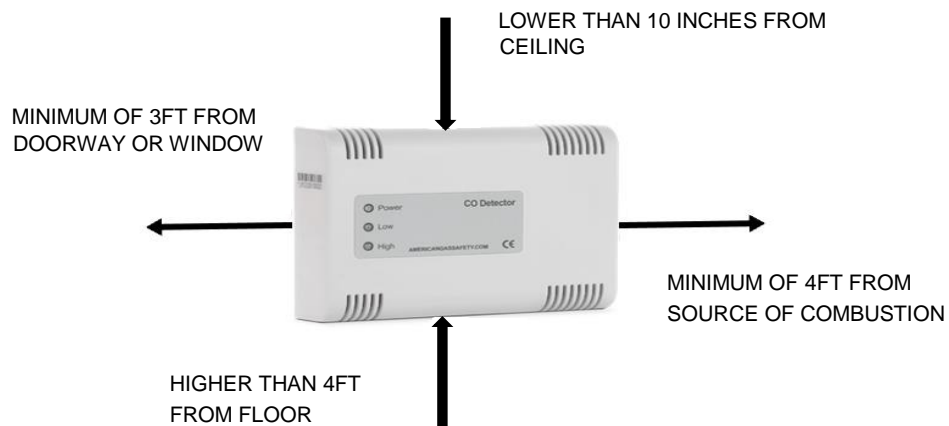
3.2.3 High LED

When the gas detector has reached the High level alarm state this will illuminate red. Please see below for further information.

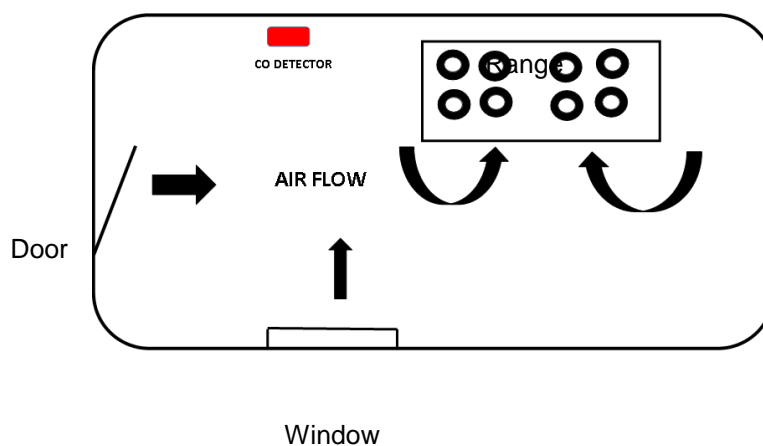
4 Technical Specification

Power supply	7-30VDC, 80mA max
Gas Sensor	Semiconductor type sensor
Measuring Range	300-10000 ppm Methane
	300-10000 ppm LPG
	10-10000 ppm CO
Warm up time for each turning-on	1 minute
Low Level Alarm (Pre Alarm)	Methane 0.4% by volume
	LPG 0.16% by volume
	Carbon monoxide 30ppm
High Level Alarm	Methane 0.5% by volume
	LPG 0.2% by volume
	Carbon monoxide 30 ppm for 2 hours 50 ppm for 1 hour 100 ppm for 10 minutes 300 ppm for 1 minute
Volt free relay output	240VAC 500mA, 30VDC 2A switching current (resistive load)
Net weight/Dimensions	180g/135mm(W)x95mm(H)x38mm(D)
Installation standard	Wall mountable
	CE, UL

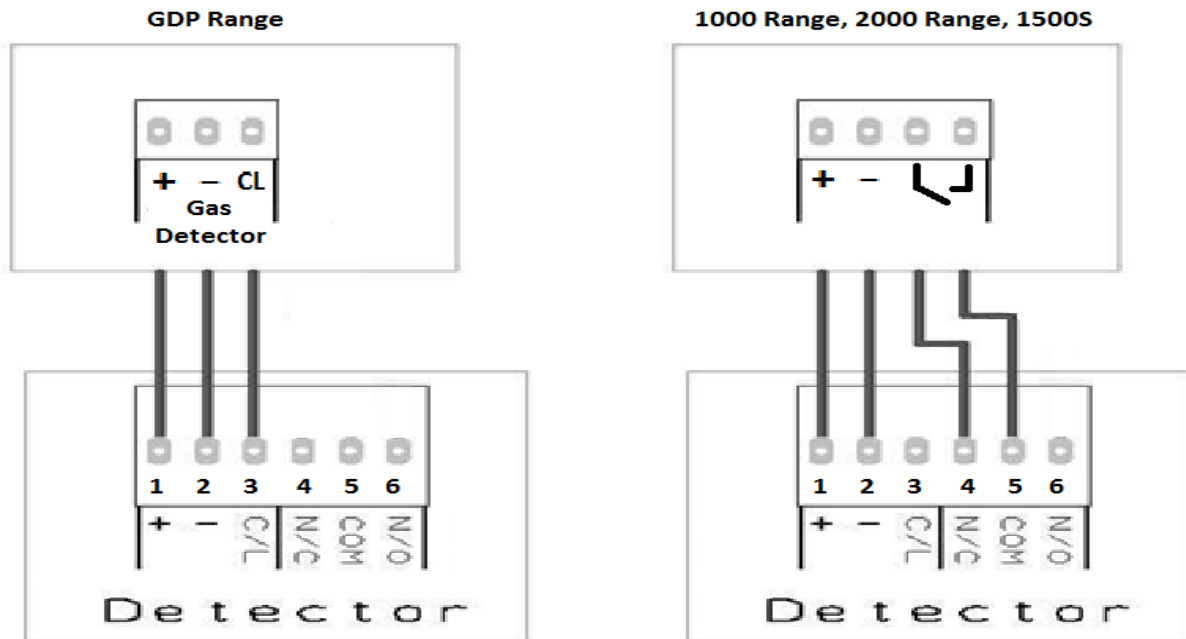
5 Carbon Monoxide positioning in a kitchen



When positioning CO detectors, take in to account the design of the air flow within the space. Positioning CO detectors near draft will greatly diminish their reliability. Multiple detectors may be required to adequately protect the space.



Wiring Diagram



1. Power supply, positive connection from Merlin panel.
2. Power supply, negative connection from Merlin panel.
3. Alarm relay, alarm signal to GDP panel.
4. Alarm relay, volt free connection. Normally closed.
5. Alarm relay, volt free connection. Common.
6. Alarm relay, volt free connection. Normally open.

Product Dimensions

Height 3.7 inch
 Width 5.2 inch
 Depth 1.3 inch

Please note, Mains wires and low voltage wires should not be run in the same conduit as per the **LOW VOLTAGE DIRECTIVE**

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