

# CGSLPGCO Mini Merlin Datasheet

# Combined LPG & Carbon Monoxide Monitor





### **Product Overview**



The CGS Mini Merlin LPGCO is a dual gas sensor designed and tested to UL standards for the purpose of monitoring levels of Liquefied Petroleum Gas (LPG) and Carbon Monoxide (CO) in the air.

If there is a dangerous build-up of gas or unsafe levels of carbon monoxide at the sensor, this device can shut off fuel supplies or power supplies via gas valves and/or electrical contactors. On board relays can interrupt appliances built in safety circuits such as fan proving switch or louver proving switch.

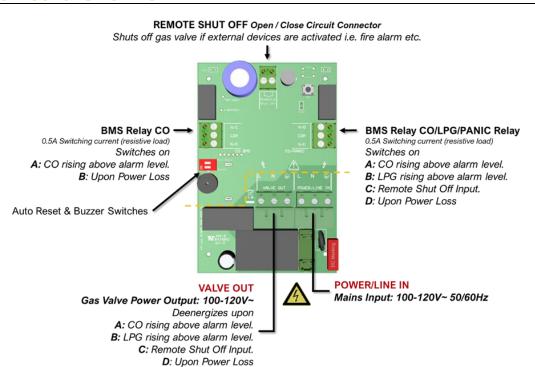
This device has a manual reset button, as well as audible and visual alarm - it can also be integrated with a Building Management Systems and fire alarm control panels.

General							
Model:		Mini Merlin LPGCO					
Target Gases:		LPG Gas & Carbon Monoxide					
Size: (H x W x D)		5.95 x 4.37 x 1.97" (151 x 111 x 50mm)					
Housing Material:		ABS PA765 (Flame Rating UL94 V-1)					
Mounting:		Safe Zone - Indoor use - Wall Mounted					
Weight:		12.24oz (0.347kg)					
Display:		1.8" TFT					
Visual Indicators:		TFT visual. Green: Normal; Yellow: Pre-Alarm; Red: Alarm					
Audible Alarm:		>70dB @ 3.28ft (1m). Quiet conditions.					
Buttons:		Multi-Function – Initial Start / Reset / Circuit Test					
Power Consumption:		3W max					
AC Power:		100-120V~ 50/60Hz					
Internal Fuse:		Anti-Surge 3.15A 250Vac					
Overvoltage Category:		II					
Volt Free BMS relay output:		0.5A switching current (resistive load)					
Ingress Protection:		Not Formally Evaluated					
Operating:		-10 ~ 50°C / 14 ~ 122°F 30 ~ 80% RH (non-condensing)					
Storage:		-25 ~ 50°C / -13~122F° up to 95% RH (non-condensing)					
Wiring		Min. 18-22AWG					
Electrical Safety and		UL61010-1/2012/R:2019-07. UL2075 R:2013-02 Gas and Vapor Detectors and Sensors.					
Electromagnetic Comp	CAN CSA C22.2 No. 61010-1-12/A1:2018-11 / EMC EN 61326-1:2013						
Sensor Specification   ▲ Rising Alarm ▼Falling alarm *EOL – Expected Operational Life							
Gas Sensor	Indicating Range	Steps	Response (t90)	Recovery (t10)	Alarm: 1 (Pre alarm warning)	Alarm: 2	*EOL (Years)
Electrochemical Sensors							
Carbon Monoxide (CO)	0-999ppm	1	<60s	<60s	▲20ppm	▲20ppm @ 2 hours / 50ppm @ 1 hour / 100ppm @ 10 minutes / 300ppm @ 1 min.	7
Semiconductor Sensors							
Liquefied Petroleum Gas (LPG)	0-20% LEL	0.1	<30s	<30s	▲8% LEL	▲ 10% LEL	10





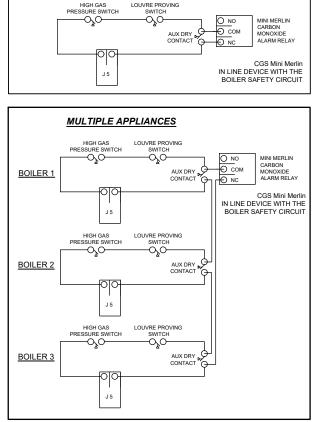
#### **Circuit Board Overview**

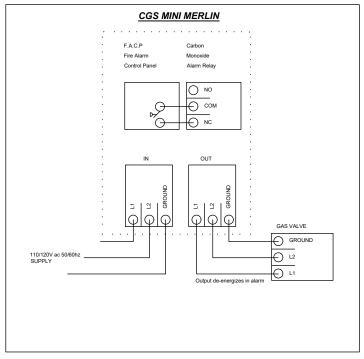


## Wiring Examples

TYPICAL APPLIANCE

LOUVRE PROVING





Find out more

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