



Product Overview

The CGS Mini Merlin dual gas detector provides protection over combustible gas leaks and high concentrations of carbon monoxide. An affordable and adaptable solution to carbon monoxide interlocks and emergency gas shut-down.

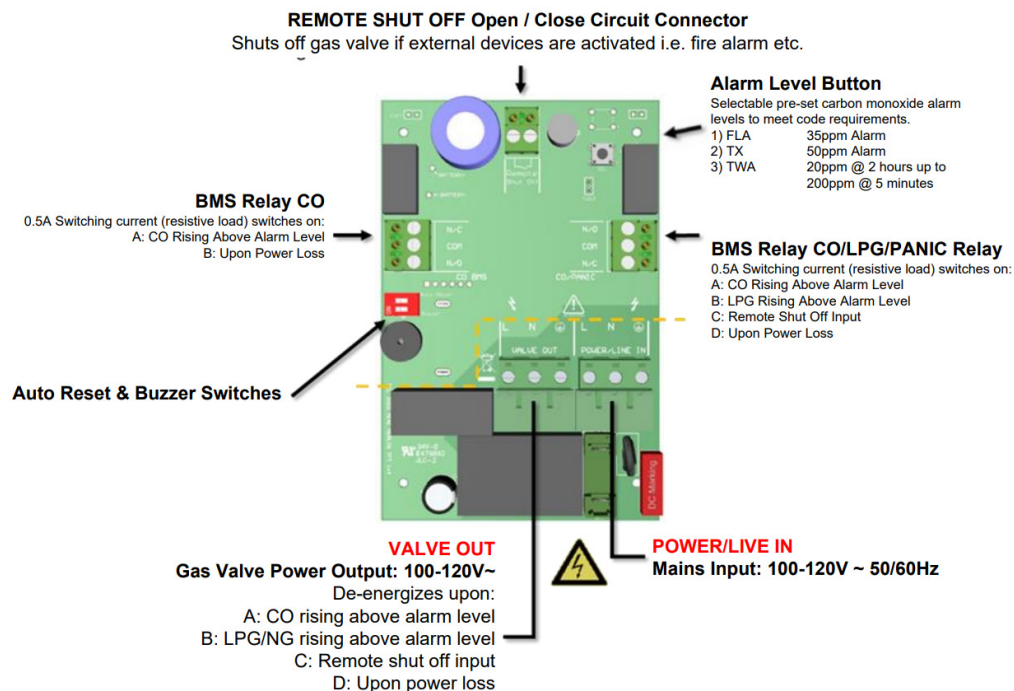
The Mini Merlin provides adaptable outputs to govern the supply of fuel or power to gas fired appliances and pre programmed relays to break limit circuits or signal building management systems or fire alarm. Simple inputs for remote panic buttons or fire alarms make the Mini a convenient wiring center in the mechanical room.

Design and listed to UL standards for the purpose of monitoring gas levels, with built in audible and visual alarm signals and a manual re-set button.

Technical Specifications

General		
Model:	Mini Merlin: (Natural Gas) CH4CO / (LPG) LPGCO	
Target Gases:	(CH4) Methane/Natural Gas & Carbon Monoxide / (LPG) LPG & 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 5-6ft AFF	
Weight:	12.24oz (0.347kg)	
Display:	1.8" TFT	
Visual Indicators:	TFT visual. Clear Status of %LEL or CO PPM and Alarm Condition	
Audible Alarm:	85db @ 6ft	
Buttons:	Multi-Function – Initial Start / Manual Reset / Circuit Test	
Power Consumption:	3W max	
AC Power:	100-120V~ 50/60Hz	
Internal Fuse:	Anti-Surge 3.15A 250Vac	
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 / -13~122°F up to 95% RH (non-condensing)	
Wiring:	Hard Wired 2# 18-22AWG Plus Ground Power	
Electrical Safety and Electromagnetic Compatibility:	UL61010-1/2012/R:2019-07. UL2075 R:2013-02 Gas and Vapor Detectors and Sensors. CAN CSA C22.2 No. 61010-1-12/A1:2018-11 / EMC EN 61326-1:2013	
Sensor Specification		
Sensor Type:	Carbon Monoxide (CO) - Semi-Conductor Natural Gas (NG) & Liquefied Petroleum Gas (LPG) - Electrochemical	
EOL - Expected Operational Life:	7-10 Years	
Models Available		
Button Selectable CO Alarm Levels:	Pre Selected Model: ***ADD CH4 for Nat. Gas (Methane) ***ADD LPG for LPG Gas	
1) FLA >20ppm Pre Alarm	CGS***CO35	NG / LPG >8% LEL Pre Alarm <10% LEL Alarm
2) TX >35ppm Pre Alarm	CGS***CO50	
3) TWA Time Weighted Average	CGS***COTWA	
	>35ppm Full Alarm	
	>50ppm Full Alarm	
	20ppm @ 2 hours up to	
	200ppm @ 5 minutes	

Circuit Board Overview



Wiring Examples

