

AGSMINIMERLIN Dual Gas Detector (CH₄ & CO) or (LPG & CO)

Product Overview:

The AGS Controls 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, the Mini Merlin is code compliant straight out of the box. Meets Texas TDLR – Section 65.2006, Georgia CO interlock rule 120-3-26-07 and Florida Statutes 509.211(4)



Circuit Board Overview:

REMOTE SHUT OFF Open / Close Circuit Connector

Shuts off gas valve if external devices are activated i.e. fire alarm etc.

Alarm Level Button

Selectable pre-set carbon monoxide alarm levels to meet code requirements.

- 1) FLA 35ppm Alarm
- 2) TX 50ppm Alarm
- 3) TWA 20ppm @ 2 hours up to 200ppm @ 5 minutes

BMS Relay CO/LPG/PANIC Relay

0.5A Switching current (resistive load) switches on:

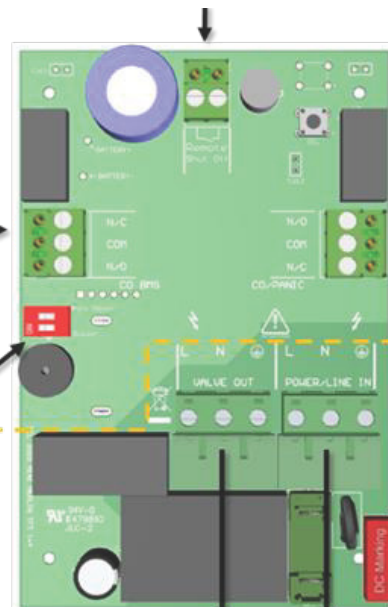
- A: CO Rising Above Alarm Level
- B: LPG/NG Rising Above Alarm Level
- C: Remote Shut Off Input
- D: Upon Power Loss

BMS Relay CO

0.5A Switching current (resistive load) switches on:

- A: CO Rising Above Alarm Level
- B: Upon Power Loss

Auto Reset & Buzzer Switches



VALVE OUT

Gas Valve Power Output: 100-120V~

De-energizes upon:

- A: CO rising above alarm level
- B: LPG/NG rising above alarm level
- C: Remote shut off input
- D: Upon power loss

POWER/LIVE IN

Mains Input: 100-120V ~ 50/60Hz

AGSMINIMERLIN Dual Gas Detector Technical Specifications

General

Model:	Mini Merlin: (Natural Gas) CH ₄ CO / (LPG) LPGCO
Target Gases:	Listed Below
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
Power Consumption:	3W max
AC Power:	100-120V~ 50/60Hz
Internal Fuse:	Anti-Surge 3.15A 250Vac
Power Consumption:	3W max
AC Power:	100-120V~ 50/60Hz
Internal Fuse:	Anti-Surge 3.15A 250Vac
Relay:	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
Electromagnetic Compatibility and Electrical Safety:	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:	1) FLA >20ppm Pre Alarm 2) TX >35ppm Pre Alarm 3) TWA Time Weighted Average	>35ppm Full Alarm >50ppm Full Alarm <20ppm @2 hours <50ppm @ 1 hour <100ppm @ 10 minutes <300ppm @ 1 minute
Pre-Selectable Model:	AGS***CO35 AGS***CO50 AGS***COTWA	

*****ADD CH₄**: Natural Gas (Methane)

*****ADD LPG**: Liquefied Petroleum Gas (LPG)

NG/ LPG >8% LEL Pre Alarm <10% Alarm