



Features

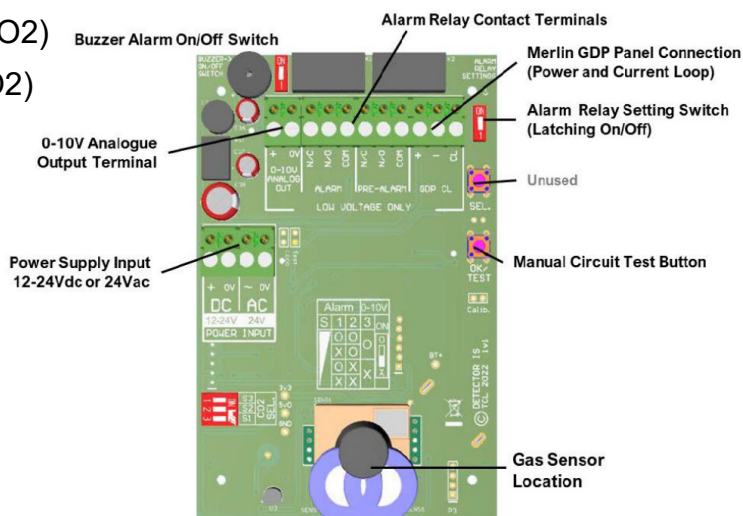
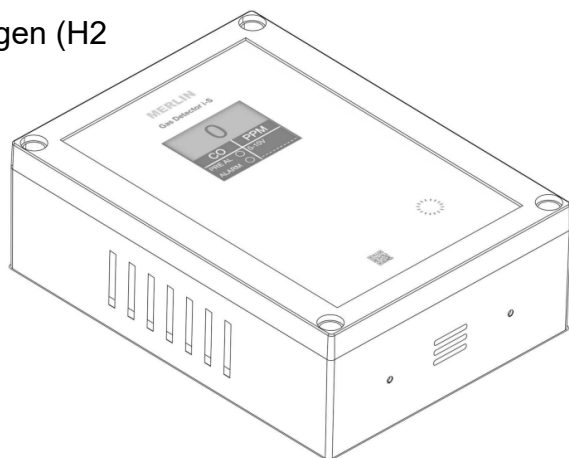
- 24VAC or DC Power Input
- Traffic Light Indicator Display Changes Color Dependent On Gas Levels
- Modern & Compact Design
- Plug & Play Installation
- Standalone Detector or Used With An CGS Controller
- Alarm Relay Dry Contact
- In-Built Audible Alarm
- Duct Mount Kit Available (Refer to AGSiS Duct Mount Sheet)

Product Overview

The CGS Merlin iS Detector is a standalone gas detector that operates on 24VAC or DC power input. Featuring a traffic light indicator display that changes color based on gas levels, it provides clear visual alerts. Its modern and compact design, along with plug & play installation, ensures easy setup and use. The iS Detector supports BMS/BAS communications, includes an in-built audible alarm, and has an alarm relay dry contact for added safety. It detects various gases, including natural gas, carbon monoxide, LPG, hydrogen, nitrogen dioxide, and carbon dioxide.

Available Gasses

- Natural Gas (CH₄)
- Carbon Monoxide (CO)
- LPG (C₃H₈)
- Hydrogen (H₂)
- Hydrogen Sulphide (H₂S)
- Nitrogen Dioxide (NO₂)
- Carbon Dioxide (CO₂)



Technical Specifications

General

Model:	CGS Merlin iS Detector
Target Gasses:	CH ₄ , CO, C ₃ H ₈ , H ₂ , H ₂ S, NO ₂ , CO ₂
Size (H x W x D):	5.95 x 4.37 x 1.97"
Housing Material:	ABS PolyIac – PA765
Mounting:	IFT A.F.F. – Indoor Use – Wall Mounted
Weight:	Max. 1.77oz

User Interface

Display:	1.8" TFT
Screen Brightness:	Non-Adjustable
Visual Indicators:	TFT visual. Green: Normal; Yellow: Pre-Alarm; Red: Alarm
Audible Alarm:	>95dB @ 3.28ft conditions
Buttons:	None
Language:	English

Power Supply

Power Consumption:	90mA Max @ 24vdc
DC Power:	12–32 VDC – Nominal 24 VDC
Internal Fuse:	None

Equipment

Overvoltage Category	III
Pollution Degree	3

I/O

Relay	Volt Free (Normally Closed / Common / Normally Open) 1x 30vdc 2A (Non-Latching)
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Environmental

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)
Atmospheric Pressure	70–110kPa
Altitude Rating	<9500ft

Wiring

Typical	#18–24AWG Power Pair; #18–24AWG Data Pair–Tinned copper.
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Approvals

Electromagnetic Compatibility	BS/IEC/EN
Electrical Safety	61010–1 EMC EN 50270

Other

Communication	RS485 MODBUS RTU
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Sensor Specifications

	NGi	LPGi	Hi	H2Si	NO2i	CO2i	COi
Indicating Range	0–20% LEL	0–20% LEL	0–20% LEL	0–20ppm	0–20ppm	0–5000ppm	0–999ppm
Alarm 1 (Pre Alarm)	<8% LEL	<8% LEL	<8% LEL	<5ppm	<0.7ppm	<800ppm	<20ppm
Alarm 2 (Alarm)	<10% LEL	<10% LEL	<10% LEL	<10ppm	<2ppm	<1000ppm	<See Below
End Of Life	10 Years	10 Years	10 Years	3 Years	3 Years	10 Years	5 Years