

# Merlin CO2X-MOD Datasheet

Carbon Dioxide Detector  
With MODBUS  
Communications



24VDC Power Input



Detector should be used with an S&S Merlin Controller



Traffic Light Indicator Display Changes Color Dependent On Gas Levels



BMS & MODBUS Communications



Modern & Compact Design



Alarm Relay Dry Contact



Plug & Play Installation



In-Built Audible Alarm

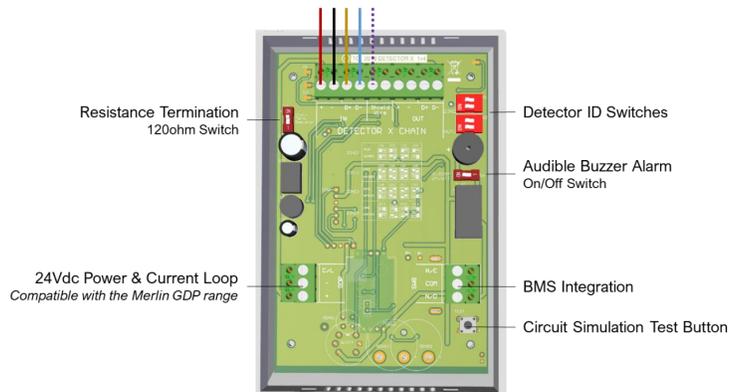
## Product Overview

The TFT range of S&S detectors work in combination with the S&S Merlin range of Gas Detection panels and Utility Controllers. The Merlin CO2X-MOD features an NDIR sensor for industrial and commercial indoor applications. Compact, modern, digital design makes the units aesthetically pleasing and easy to install.

## Popular Applications

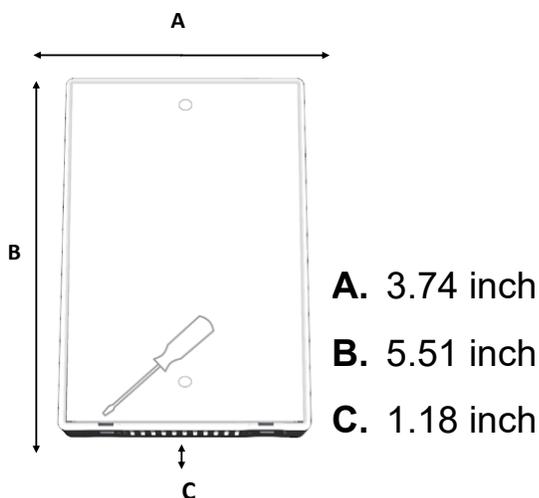


24Vdc Power Input/Output & Data  
Compatible with the Merlin GDP-X range.



# Technical Specification

General							
Model:	Merlin Gas Detector X						
Target Gases:	CO2						
Size: (H x W x D)	5.51 x 3.74 x 1.18" (140 x 95 x 30mm)						
Housing Material:	ABS Polylac - PA765						
Mounting:	Safe Zone - Indoor use - Wall Mounted						
Weight:	Max. 1.77oz (0.05kg)						
User Interface							
Display:	1.8" TFT						
Screen Brightness:	Non-Adjustable						
Visual Indicators:	TFT visual. Green: Normal; Yellow: Pre-Alarm; Red: Alarm						
Audible Alarm:	>70dB @ 3.28ft (1m). Quiet 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)						
Environmental							
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)						
Altitude Rating:	2000m						
Wiring							
Typical	#15AWG Power Pair; #18AWG Data Pair-Tinned copper.						
Approvals							
Electromagnetic Compatibility and Electrical Safety	BS/IEC/EN 61010-1 EMC EN 50270						
Other							
Communication	RS485 MODBUS RTU						
Gas Sensor	Indicating Range	Steps	Response (t90)	Recovery (t10)	Alarm: 1 (Pre alarm warning)	Alarm: 2	*EOL (Years)
Carbon Dioxide (CO2)	400-5000ppm	1	<30s	<30s	▼2800ppm	▼4500ppm	10



## Area of coverage

Consider the coverage required and function of the area. Emphasis should be placed on airflow patterns and correct placement, not perceived detecting ranges. The target gas will only be identified when contact is made with the sensing element itself.

The MERLIN CO2X-MOD monitor should be installed approximately 5ft 6" from ground level.

Find out more

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