

GG2 DETECTOR EC CO & O₂

Electrochemical Carbon Monoxide and Oxygen Gas Sensors

Summary

The Electrochemical (EC) CO and O₂ models of the GG2 Detector are intrinsically safe sensors for monitoring the atmospheric concentration of Carbon Monoxide (CO) or Oxygen (O₂) gas. The stainless steel housing is robust, corrosion resistant and fit for purpose. Power and communications is facilitated through the low profile connector, allowing for quick plug and play connections to compatible models, such as the GG2 Display. When mated, the enclosure and electrical connections achieve an ingress protection rating of IP66. The gas inlet achieves IP54 and is designed with a fast responding, three-dimensional hydrophobic barrier that minimises the potential for blockages.

The sensor operates on the electrochemical principle. Gas diffuses into the sensor and a chemical reaction creates a current flow between the sensing and reference electrodes, proportional to the presence of the target gas in the atmosphere. The sensor conditioning is fully self-contained and stores all necessary compensating and calibration information to provide a linear temperature compensated output.

An optional Remote Cable Assembly is available for mounting GG2 Detectors up to 10 metres from the GG2 Display.



Features

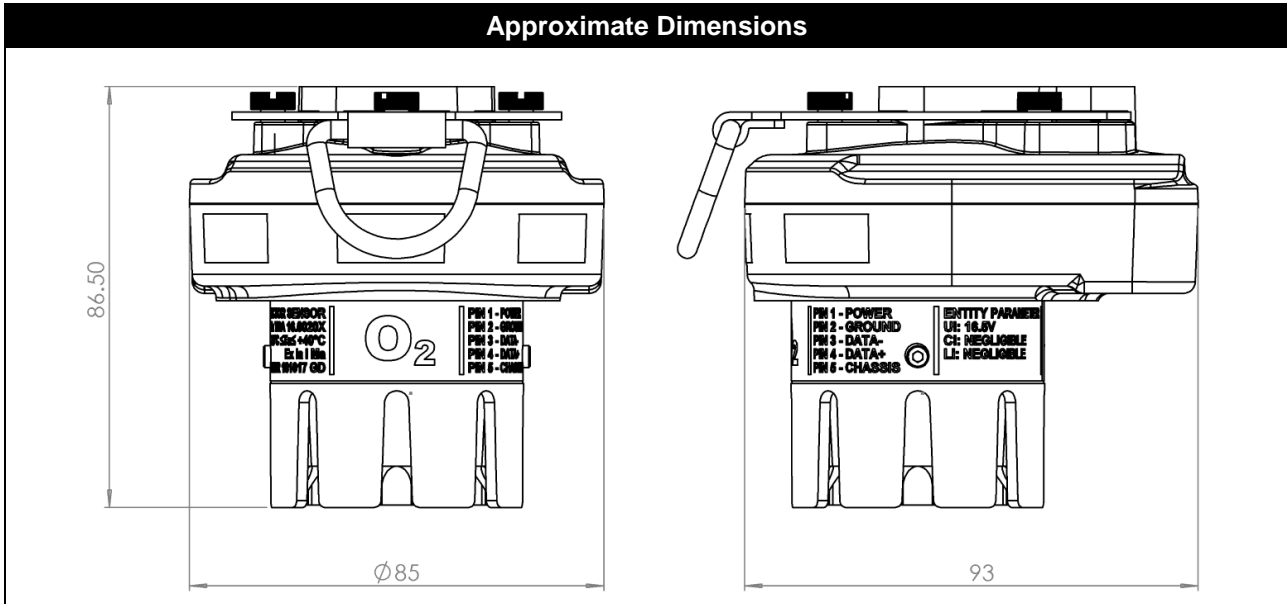
- Intrinsically Safe Ex ia I Ma
- Tested to the performance requirements of AS 4641 and AS/NZS 60079.29.1
- Robust stainless steel construction for group 1 mining applications
- Failsafe architecture and digital interface with extensive self-diagnostic routines
- Temperature compensated
- Economical
- Interfaces directly to the GG2 Display Module providing a LCD display and support for 4-20mA, iMAC and RS485 communication
- Detachable for quick replacement minimising downtime for routine maintenance

Example System Overview (iMAC Communication)



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Approximate Dimensions



Specifications

	O ₂	CO
Electrical		
Supply Voltage	10 - 16.5VDC	
Power Consumption (max)	0.1W	
Mechanical and Environmental		
Dimensions (H x W x D)	86.5mm x 85mm x 93mm	
Weight	1kg	
IP Rating	IP54	
Operating Temperature	-20°C to +40°C	
Humidity Range	15% to 90% r.h. non-condensing	
Pressure Range	±20kPa	
Response Time (t90) via diffusion	<60s	
Warm-Up Time	30mins	<5mins (60 seconds typical)
Sensor Unit		
Detection Method	Electrochemical	
Calibrated Range	0-25%	0-50ppm 0-100ppm
Accuracy	±0.3% v/v over the range 10-25% v/v ±0.5% v/v over the range 0-9.9% v/v	±3 ppm over the range 0-29 ppm ±6 ppm over the range 30-100 ppm
Drift	<1% per 3 months	10% per 6 months
Repeatability	±1% of reading	
Sensing Element Life	>48 months	>24 months
Resolution	<0.1% v/v	0.01 ppm
Certification		
IECEX	IECEX TRA 16.0020X	
DPI	MDR 0001030 GD	
Find Out More		
For more information on this product, contact Ampcontrol Customer Service on +61 1300 267 373 or customerservice@ampcontrolgroup.com or visit the Ampcontrol website: www.ampcontrolgroup.com		

Equipment List

Customised gas panels and systems are also available as well as sample draw panels. These can be designed specifically to your gas sensing needs.

Refer to **GG2B026 GG2 Monitoring Solution Technical Datasheet** for a detailed equipment list.

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