

# GAS-CO-150-X

## Sensor Transmitter Cartridge for Carbon Monoxide, with Analog Output

0-150ppm 4-20mA, with enhanced gas radical sensing for Very Early Fire Detection

### Product Summary

The exchangeable sensor transmitter cartridge is used for continuous monitoring of the ambient air to detect the presence of Carbon Monoxide (CO) concentrations in the range of 0-150ppm along with CO gas radicals for Very Early Fire Detection, in accordance with the defined specifications.

The product's standard linear 4-20mA analog output may be connected to the Gas Alarm range of standalone and multi-channel gas controllers, or to any PLC, SCADA or DCS system for live monitoring, alarm generation, HVAC control or process parameter control.



### Key Product Features

- Fully sealed sensor cell with gas-specific gel electrolyte and hydrophobic filter.
- High accuracy, selectivity and reliability with low calibration drift over time.
- Long operational lifespan compared to solid state semiconductor sensors.
- Simplified maintenance via exchange of pre-calibrated sensor cartridges or easy on-site calibration.
- Power supply input is diode-protected against reverse voltage
- Fast tool-free wire termination via the supplied terminal block.
- Supplied with shipping cap to protect sensor during transport
- Various housing options available (IP43 / IP44, IP65 / NEMA 4X), duct mounting kit also available

### Typical Industries and Applications

Carbon Monoxide is a colourless, odourless and highly toxic gas which is known as “the silent killer”. As such, the GAS-CO-150-X offers major benefits for personnel safety and asset protection in such applications as:

- Mining, materials handling and processing plants (e.g. spontaneous combustion and Very Early Fire Detection monitoring in coal mines and related facilities).
- Parking garages, tunnels, emergency shelters, loading docks and engine maintenance/test stations (e.g. CO monitoring for safety, ventilation fan control for energy and greenhouse emission savings).
- Heavy industry e.g. power generation, petrochemical processing, production facilities, laboratories.
- Many other applications where Carbon Monoxide concentration must be monitored within strict limits.

**PRODUCT DATA SHEET**

Version 2.0 – Release Date: 14/06/2019

Technical Specifications

<b>Electrical</b>	
Power supply	+16 - 29 VDC with reverse polarity diode protection
Power consumption	22mA max. (0.5VA @ +24VDC)
Analog signal output	Linear proportional 4-20mA current loop
Output load	≤ 500 ohm for current signal
<b>Sensor Performance</b>	
Sensor element type	Electrochemical
Detected gas	Carbon Monoxide (CO)
Measurement range	0-150 ppm
Accuracy	±3 ppm
Resolution	0.5 ppm
Repeatability	< ±5% full scale signal
t90 Time	≤ 50 seconds
Zero-point variation	±4 ppm
Zero/Gain calibration drift	< ±0.4% full scale signal per month
Recommended calibration interval	12 months

Environmental & Physical Specifications

Operating temperature range	-15 to +50 °C
Humidity	10-95% relative humidity (non-condensing)
Pressure range	Atmospheric ±20%
Storage lifetime	6 months @ 5 - 30 °C
Dimensions (sensor cartridge only)	38mm (L) x M25 mounting diameter
Material – Sensor Cartridge	ABS with epoxy encapsulated sensor cell
Material – Optional Housings	ABS (IP44), Polycarbonate (IP65)

Standards & Approvals Compliance

EN 50545  
 EN 50271  
 EN 61010-1  
 ANSI/UL 61010-1  
 CAN/CSA-C22.2 No 61010-1  
 EMC Directives 2014/30/EU

EN 50545  
 EN 50271  
 EN 61010-1  
 ANSI/UL 61010-1  
 CAN/CSA-C22.2 No 61010-1  
 EMC Directives 2014/30/EU

GAS-CO-150-D (IP65 Housing)

GAS-CO-150-F (IP44 Housing)

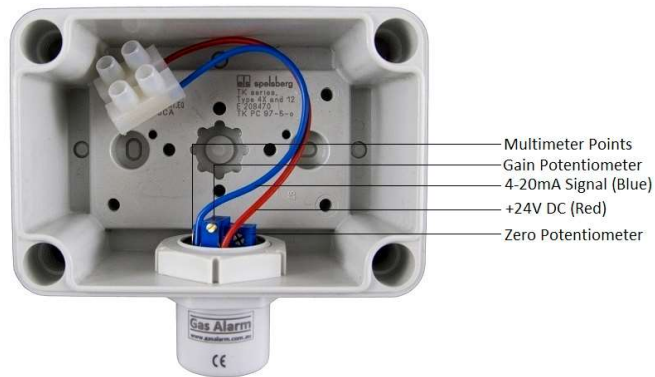
GAS-CO-150-K (Duct Kit)



**PRODUCT DATA SHEET**

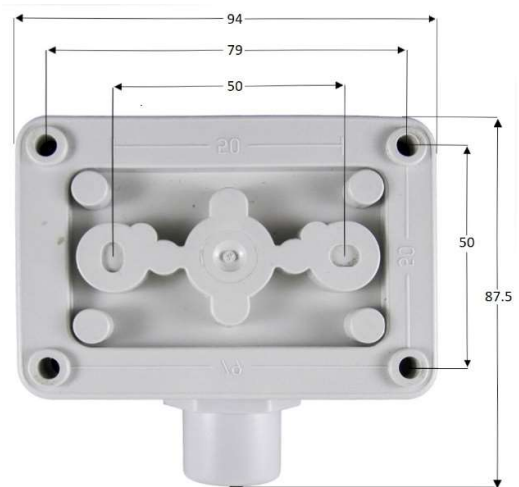
Version 2.0 – Release Date: 14/06/2019

**Wiring Schematic**



**Product Dimensions (in mm)**

- GAS-CO-150-D (IP65 Housing)



- GAS-CO-150-F (IP44 Housing)

