

# AX-GS-CM-V-65

Carbon Monoxide Voltage Transmitter IP65

# AXIO



## Product overview

The AX-GS-CM-V-65 Carbon Monoxide Voltage Transmitter provides a linear output signal for CO levels from 0-300ppm. The output voltage is configurable for either 0-5Vdc, 2-10Vdc or 0-10Vdc. An optional relay with set trip points is available. The transmitter electronics are housed in the lid of the IP65 enclosure with the sensor part connected using a plug-in connector - this enables cost-effective easy replacement of the sensor using our three year exchange option.

The unit can be mounted with the cable gland entry pointing up or down.

## Features

- Monitors CO levels over a range of 0 to 100/300ppm
- Electrochemical sensing element
- Relay option with jumper set alarm levels
- Easy installation with plug-in connections
- 3 year warranty
- 0-5, 2-10 or 0-10Vdc selectable voltage output
- Open-collector fault output
- Easy maintenance and 3 year exchange sensor option
- Sensor is UL recognised component UL2034, UL2075, E240671

## Product specifications

Sensor Type:	Electrochemical 3-electrode
Power Supply:	24Vac $\pm$ 10%, 100mA maximum or 24Vdc $\pm$ 10%, 60mA maximum
Output:	0-5Vdc, 2-10Vdc or 0-10Vdc at 5mA maximum load
Output Range:	0-300ppm (0-100ppm as an option)
Output Accuracy:	$\pm$ 10% FSD
Output Stability:	<5% signal drift per year
Relay (option)	SPCO relay, 230Vac 5A (resistive) can be set to trip at 25, 60 or 150ppm
2 Relay (option)	Two SP relays, 50V 1A (resistive) can be set to trip at 25, 60 or 150ppm + offset
Fault output	Open collector. 30Vdc at 100mA maximum
Display (option)	4 digit 9mm high character backlit LCD of reading in ppm
Typical Coverage Area:	700m <sup>2</sup> or 15m radius
Settling Time:	3 minutes after power up
Life Expectancy:	>3 years dependant on environment
Ambient Temp. & Humidity Range:	0-50°C, 15-90% RH non-condensing
Housing:	Flame retardant ABS, IP65, White (optional Black - see order codes)
Dimensions & Weight:	92mm diameter x 52mm, 170gms
Terminals:	Rising clamp for 0.5-2.5mm <sup>2</sup>
Country of Origin:	United Kingdom

## Order codes

AX-GS-CM-V-65	Carbon Monoxide Voltage Transmitter IP65 0-300ppm	
AX-GS-CM-V-100-65	Carbon Monoxide Voltage Transmitter IP65 0-100ppm	Add -B to all
AX-GS-CM-VR-65	Carbon Monoxide Voltage Transmitter IP65 0-300ppm with relay	part numbers
AX-GS-CM-VR-100-65	Carbon Monoxide Voltage Transmitter IP65 0-100ppm with relay	for the optional
AX-GS-CM-VL-65	Carbon Monoxide Voltage Transmitter IP65 0-300ppm with display	black enclosure
AX-GS-CM-VL-100-65	Carbon Monoxide Voltage Transmitter IP65 0-100ppm with display	
AX-GS-CM-VR2-65	Carbon Monoxide Voltage Transmitter IP65 0-300ppm with 2 relays	

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## Installation

The AX-GS-CM-V should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment it is to be connected to and any local regulations. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the module is being connected to.

## Location

The enclosure should be mounted at a height of 1 to 1.5 metres from the floor of the area to be monitored in an area of good airflow. For best operation do not mount the sensor near doors, opening windows, supply air diffusers or other known air disturbances. Avoid areas where the transmitter would be exposed to vibrations or rapid temperature changes.

## Connections

The transmitter should be connected to the controller using 0.5 to 2.5mm<sup>2</sup> cable. The unit requires three wires 24V supply, 0V and CO level output. The use of shielded cable is recommended for the highest noise immunity. Do not route signal wires in the same conduit with power cables as signal degradation may occur. Before applying power, ensure that the AX-GS-CM-V transmitter output is configured correctly for the unit being supplied.

## Voltage range selection

Place the VRANGE jumper in position 0-5 for 0-5Vdc output, 2-10 for 2-10Vdc output or 0-10 for 0-10Vdc output. When the 2-10V range is selected, and the unit detects a fault, the output will be set to 1V. Also if wiring becomes open-circuit, the measured voltage will drop to 0V.

## Fault output

This is an open collector output. The output will be switched on when no faults are detected, and off when a fault is detected or no power is applied.

## Relay trip point

If the unit has the optional relay fitted the trip point can be set by the TP jumper. The available trip points are 25, 60 or 150ppm.

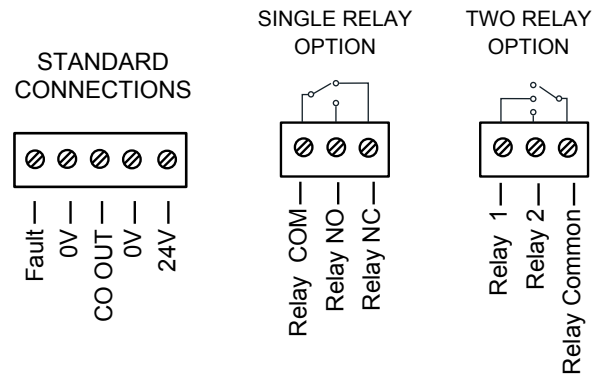
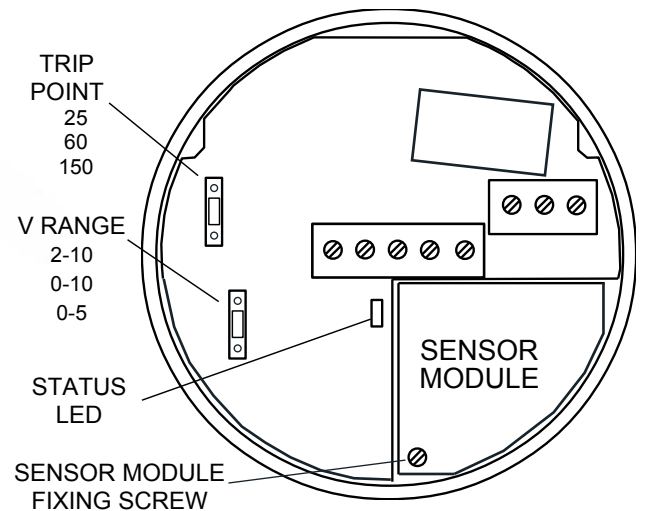
## Status LED

This flashes 6 times every 8 seconds. A brighter flash in the sequence indicates a fault, ordered as:

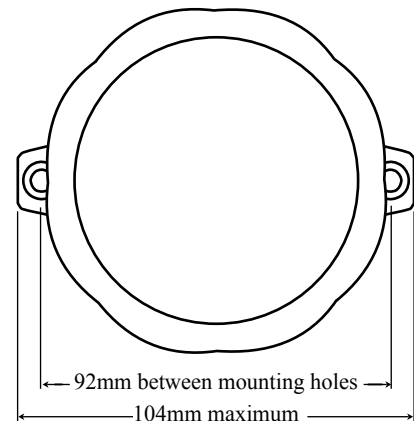
- 1 - Program memory
- 2 - Internal
- 3 - Calibration
- 4 - CO sensor selection
- 5 - Temperature sensor
- 6 - CO sensor

## Sensor module replacement

To replace the sensor module remove the fixing screw and slide module to the right. After replacing the module, check the status LED indications give 6 equal flashes (no bright flash).



## Fixing



## Usage

Suitable for monitoring and ventilation applications. Do NOT use in safety critical or hazardous applications. Axio recommend using the 2-10V range and/or the Fault output to maintain confirmation of correct operation of the unit.

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