

Carbon Monoxide Voltage Transmitter IP65, with optional display



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. Options include relay(s) with set trip points and an LCD display. The unit is available in either space or duct mount variant. The sensor module uses a plug-in connector, making for easy in-the-field replacement.

The unit can be mounted with the cable gland entry pointing up or down. Alternatively, the gland entry can be mounted to the rear.

Refer to the AX-GS-CM-I data sheet for 4-20mA options.



- 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

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:	± 5 ppm or $\pm 5\%$ of reading (whichever is greater) between 0-50°C
Output Stability:	<5% signal drift per year
Sampling:	Diffusion or flow-through probe in duct mount variant
Relay (option):	SPCO relay, 230Vac 5A (resistive) can be set to trip at 25, 60 or 150 ppm
2 Relay (option):	Two SP relays, 50V 1A (resistive) can be set to trip at 25/50, 60/100 or 150/200ppm
Sounder (option):	85dB @ 10cm can be set to trip at 25, 60 or 150 ppm
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 ² or 15m radius

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No Display	With Display	Description	
AX-GS-CM-V-65	AX-GS-CM-VL-65	0-300ppm	Add -B to all part numbers for optional black enclosure
AX-GS-CM-V-100-65	AX-GS-CM-VL-100-65	0-100ppm	
AX-GS-CM-VR-65	AX-GS-CM-VRL-65	0-300ppm with relay	Add -D to all part numbers for duct probe variant
AX-GS-CM-VR-100-65	AX-GS-CM-VRL-100-65	0-100ppm with relay	
AX-GS-CM-VR2-65	AX-GS-CM-VR2L-65	0-300ppm with 2 relays	Add -R to all part numbers for rear cable entry
AX-GS-CM-VR2-100-65	AX-GS-CM-VR2L-100-65	0-100ppm with 2 relays	
AX-GS-CM-VS-65	AX-GS-CM-VSL-65	0-300ppm with sounder	

Response time(t_{90}):	<65 seconds
Settling Time:	3 minutes after power up
Life Expectancy:	>3 years dependant on environment
Ambient Temperature & Humidity:	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 0.5-1.5mm ²
Country of origin:	United Kingdom

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.

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.

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.

The duct mount variant is installed through the side of the duct and fastened with the mounting holes provided on the enclosure.

The transmitter should be connected to the controller using 0.5 to 1.5mm² 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-GSCM-V transmitter output is configured correctly for the unit being supplied.

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.

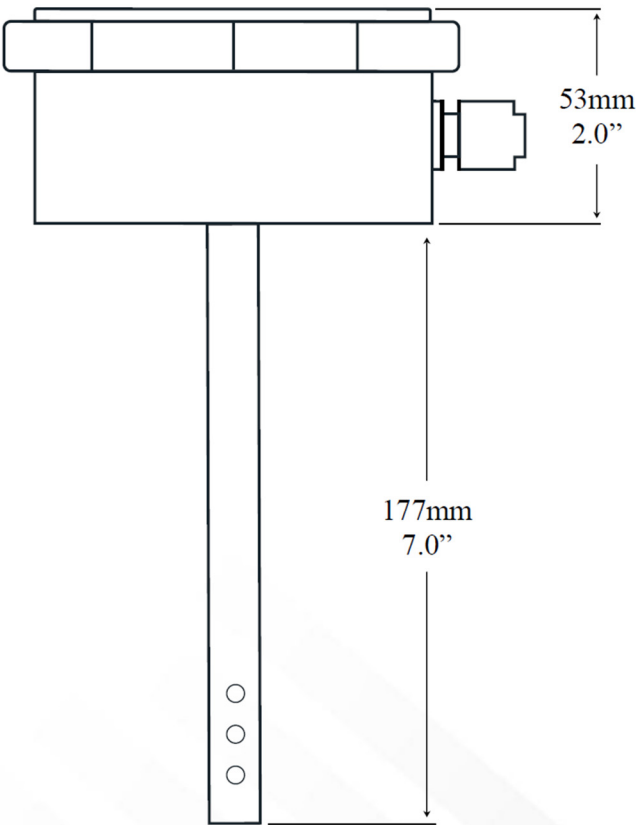
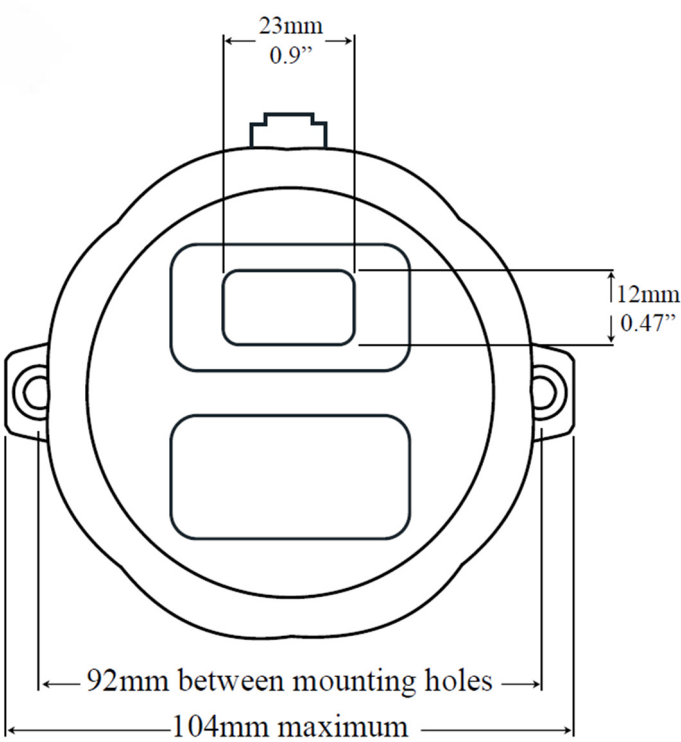
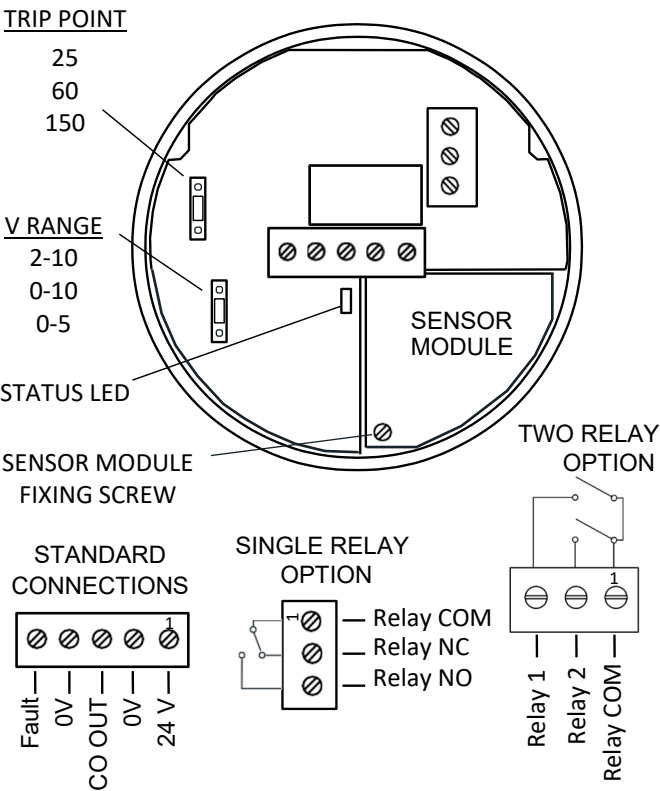
TP	Single Relay	Dual Relay	
		Relay 1	Relay 2
25	25	25	50
60	60	60	100
150	150	150	200

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

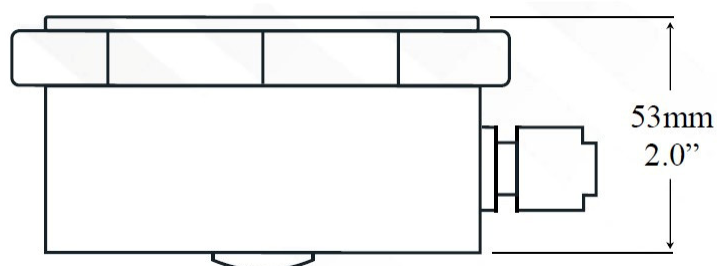
1 - Program memory	2 - Internal
3 - Calibration	4 - CO sensor selection
5 - Temperature sensor	6 - CO sensor

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).

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.



0-300ppm with duct probe



The AX-GS-CM-V-65 provides a side-entry M20 cable gland as standard, whilst the -R version offers the option of rear cable entry allowing the unit to be mounted to a wall with its cables hidden from view. The -R version is supplied with a M20 gland plug and gasket that can be repositioned to the side or the rear.

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