AX-GS-CM-M-SQ
Carbon Monoxide Transmitter- MODBUS RTU– Square Enclosure

AXIO

Product Overview

The AX-GS-CM-M-SQ is an optimal solution for detecting hazardous emissions in parking garages, loading docks, warehouses, and other similar environments. It employs an electrochemical sensor to monitor carbon monoxide (CO) concentration levels ranging from 0 to 300 parts per million (ppm). The device transmits data over the RS-485 network using the Modbus RTU protocol. By continuously monitoring CO levels, the ventilation system can be adjusted accordingly to maintain air quality within safe limits.

The sensor module utilizes a plug-in connector, facilitating effortless replacement in the field.

Products Features

- Monitors CO levels over a range of 0 to 300ppm
- Electrochemical sensing element
- Isolated RS-485 Output
- Comes with Square Enclosure
- Easy maintenance and 3 year exchange sensor option
- Sensor is UL recognised component UL2034, UL2075, E240671
- 3 Year Warranty

Product Specifications

Sensor Type:	CO : Electrochemical 3-electrode
	Temperature (option) : 10K3A1 NTC Thermistor
Power Supply:	24Vac ±10%, 100mA maximum or 24Vdc ± 10%, 60mA maximum
Output:	Isolated RS-485 Modbus RTU
	Supported baud rates: 9600,19200,38400,57600,115200bps. More info in installation manual.
Output Accuracy:	CO : ±5ppm or ±5% of reading (whichever is greater) between 0-50˚C
	Temperature (option) : ±0.3 °C Typical
Output Stability:	<5% signal drift per year
Typical Coverage Area:	700m² or 15m radius
Settling Time:	3 minutes after power up
Response Time(t_{90}):	<35 Seconds
Life Expectancy:	>7 years dependant on environment
Ambient Range:	0-50˚C, 15-90% RH non-condensing
Housing:	Polypropylene, IP66, White (optional Black - see order codes)
Dimensions & Weight:	140grams, 85 (W) x 85 (L) x 50 (D) mm
Terminals:	Rising clamp for 0.5-1.5mm²
Country of origin	UK

Product Order Codes

Order Code	Description
AX-GS-CM-M-SQ	Carbon Monoxide Transmitter 0-300 ppm, MODBUS RTU, Square Enclosure.
	* Add "RE" for Rear Entry option (Example AX-GS-CM-M-SQRE).
	* Add "B" for optional Black Enclosure (Example AX-GS-CM-M-SQREB).
	* Add "W" for optional White Enclosure (Example AX-GS-CM-M-SQREW).

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Installation

The AX-GS-CM-MSQ should be installed by a suitably qualified technician in accordance with any guidelines for the device and the equipment which is to be connected to. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the unit is being connected to using screened cable where necessary.

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.

Status LED

This flashes 4 times every 6 seconds. A brighter flash in the sequence indicates a fault, ordered as:

1 - EEPROM

2 - CO Sensor

3 - Ext. Temperature sensor

4 - CO Gain Error

## Communication status LED

OFF - No valid communication

Short flash - Valid packets received. NOT for this unit.

Long flash - Valid packets received. Replied to the request.

Datasheet Contents

Every effort has been taken in the production of this data sheet to ensure accuracy. Annicom do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Annicom has a policy of continuous improvement and reserves the right to change this specification without notice.

Connections
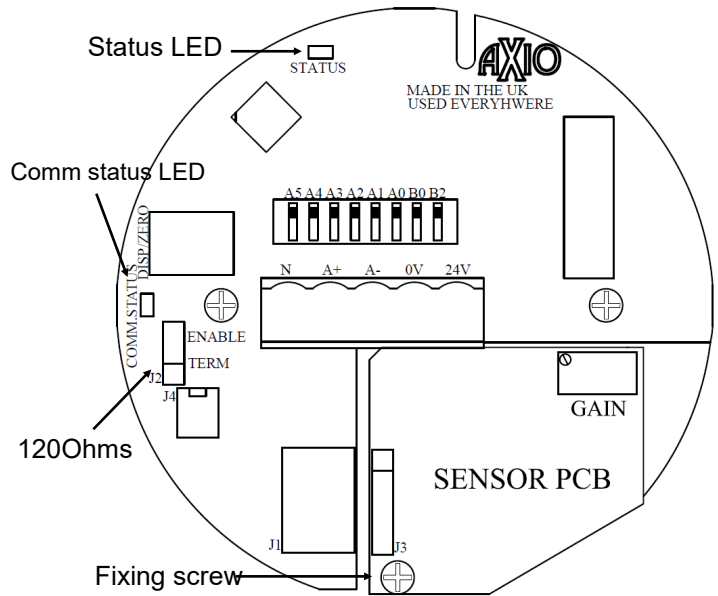
1. NET COMMON

2. DATA+

3. DATA -

4. 0V

5. 24V AC/DC

Termination Impedance

If the slave device is at the end of the network, enable 120Ohms termination resistor by placing TERM in ENABLE Position. This ensures the proper termination of signals travelling in both directions on the bus. Do NOT use more than two termination impedances in a network.

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 4 equal flashes (no bright flash).

Usage

Suitable for monitoring and ventilation applications. Do NOT use in safety critical or hazardous applications.