AX-GS-ND-V

Nitrogen Dioxide Voltage Transmitter IP65, with optional display

Product overview

The AX-GS-ND-V Nitrogen Dioxide Voltage Transmitter provides a linear output signal for NO2 levels from 0-10ppm. 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 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

Products Features

- Monitors NO2 levels over a range of 0 to 10 ppm
- Electrochemical sensing element
- Relay option with jumper set alarm levels
- Easy installation with plug-in connections
- 0-5, 2-10 or 0-10Vdc selectable voltage output
- Open-collector fault output
- Easy maintenance and 2 year exchange sensor option
- 2 year warranty

Product Specifications

Power Supply:	24Vac ±10%, 100mA maximum or 24Vdc ± 10%, 60mA maximum
Sensor Type:	Electrochemical 3-electrode
Output:	0-5Vdc, 2-10Vdc or 0-10Vdc at 5mA maximum load
Output Range:	0-10ppm
Output Accuracy:	±0.2ppm or 5% of reading (whichever is greater) between 0-50˚C
Response time(t_{90}):	<35 Seconds
Long term sensitivity drift:	<12% signal drift per year
Relay (option)	SPCO relay, 230Vac 5A (resistive) can be set to trip at 1, 3 or 5 ppm
2 Relay (option)	Two SP relays, 50V 1A (resistive) can be set to trip at 1/2, 3/5 or 5/7ppm
Display (option)	4 digit 9mm high character backlit LCD of reading in ppm
Fault output	Open collector. 30Vdc at 100mA maximum
Typical Coverage Area:	700m² or 15m radius
Settling Time:	3 minutes after power up
Life Expectancy:	>2 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 0.5-1.5mm²
Country of origin:	UK

Product Order codes

No Display	With Display	Description
AX-GS-ND-V	AX-GS-ND-VL	0-10ppm
AX-GS-ND-VR	AX-GS-ND-VRL	0-10ppm with relay
AX-GS-ND-VR2	AX-GS-ND-VR2L	0-10ppm with 2 relays

Add –B to all part numbers for optional black enclosure

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Installation

The AX-GS-ND-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 1.5mm² cable. The unit requires three wires 24V supply, 0V and NO2 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-ND-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 (option) ppm

TRIP	Single Relay	Dual Relay	
		Relay 1	Relay 2
1	1	1	2
3	3	3	5
5	5	5	7

Status LED

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

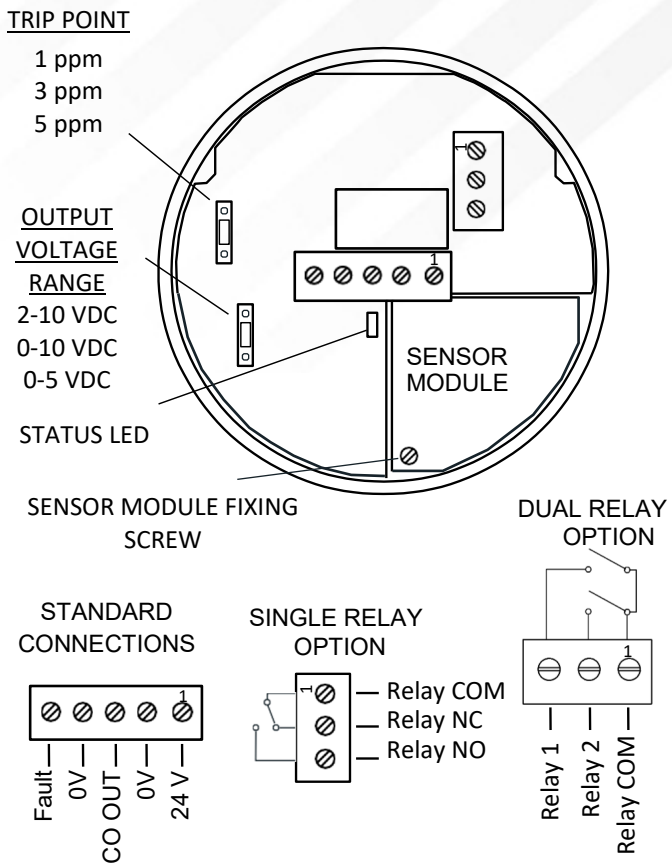
1 - Program memory 2 - Internal

3 - Calibration 4 - NO2 sensor selection

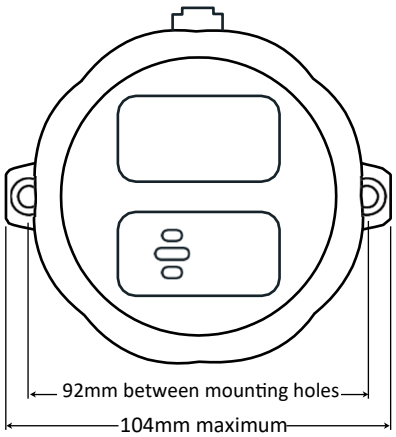
5 - Temperature sensor 6 - NO2 sensor

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 .



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.

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.