

Data Sheet Ref: 90500997 Issue: 5.1

GS-AQ911

Space air quality transmitter

## **Technical Overview**

The **GS-AQ911** is wall-mounting air quality transmitter designed for use for the control of fresh air for ventilation purposes. The **GS-AQ911** measures the level of contaminant gases in an air sample, and is sensitive to most heavy odours, smoke, solvent gases etc., providing an output proportional to the mixed gas concentration. This signal can be used to control fresh air fans and dampers according to the ventilation load. Where the primary contaminant load is human respiration, it is recommended that a Carbon Dioxide transmitter is used.



### **Features**

- Low cost air quality measurement
- Detects particulates such as cigarette smoke

# **Specification**

Sensor reference Tin Dioxide film Cal. accuracy  $\pm 5\%$  of reading Re-calibration 2 years

Housing material Flame retardant ABS
Dimensions 85mm x 85mm x 27mm

Ambient:

Temperature 15°C to 30°C RH 45 to 65% RH

Power supply 24Vac/dc (±10%) @ 45mA

Output 0-10Vdc

(0v = Lo contamination) (10Vdc = Hi contamination)

Country of origin UK

## **Product Codes**

#### **GS-AQ911**

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## Installation

- Undo the tamperproof screw at the bottom of the housing and gently pull the front panel from the base.
- Using the base as a template mark the hole centres and fix to the wall with suitable screws. Alternatively the base plate can be mounted on to a conduit box or a standard recessed back box.
- Feed cable through the 22mm knockout in the base of the housing and terminate the cores at the terminal block. Leaving some slack inside the unit.
- 4. Replace the housing to the base plate.
- 5. Fit the tamperproof screw (if required) through the lug at the bottom of the base plate.
- Power the unit with 24Vac/dc and after a stabilising period of 2-3 minutes functionality checks can be made.
- Pre-commissioning checks are made after approximately 30 minutes. Final commissioning should only be carried out after the unit has been running for a minimum of seven days.

### Operation

The **GS-AQ911** space air quality transmitter is most suited to areas such as common rooms, canteens, office spaces and other areas where pollutants given off by occupants are of concern.

The typical pollutants of which the **GS-AQ911** would monitor are body odours, methane, solvent gases, cigarette smoke, carbon monoxide, alcohol, perfume and most other heavy odours related to high occupancy.

The normal operation of the **GS-AQ911** is to set the dampers to minimum fresh air at below 2Vdc. As the signal increases, dampers should be modulated to fully open at 8-10Vdc.

### Trend Scaling

Typically, the output could be scaled for 0 to 100% contamination.

 Brange
 -100

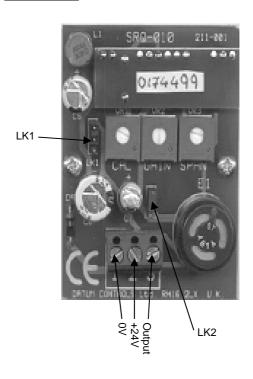
 Trange
 100

 Upper
 100

 Lower
 0

 Exponent
 3

## Connections



LK2 can be ON for response damping or OFF for no damping.

NB Jumper LK1 should not be changed.