

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	±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

Space air quality transmitter

International Tel: +44 1732 861225 UK Sales Tel: 0845 345 7253 International Fax: +44 1732 861226 UK Sales Fax: 0845 345 7353

Whilst every effort has been made to ensure the accuracy of this specification, Sontay cannot accept responsibility for damage, injury, loss or expense resulting from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.



GS-AQ911

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#### Installation

- 1. Undo the tamperproof screw at the bottom of the housing and gently pull the front panel from the base.
- 2. 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.

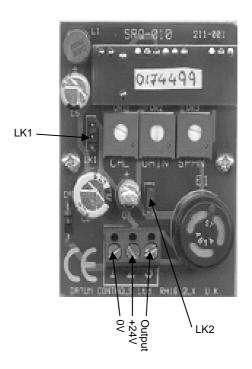
The normal operation of the **GS-AQ911** is to set the dampers to minimum fresh air at below 2Vdc. As the signal increases, dampers should be modulated to fully open at 8-10Vdc.

## 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.

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