Space Air Quality Transmitter

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	0°C to 50°C
RH	0 to 100% 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

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.

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.

3. 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.

6. Power the unit with 24Vac/dc and after a stabilising period of 2-3 minutes functionality checks can be made.

7. 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

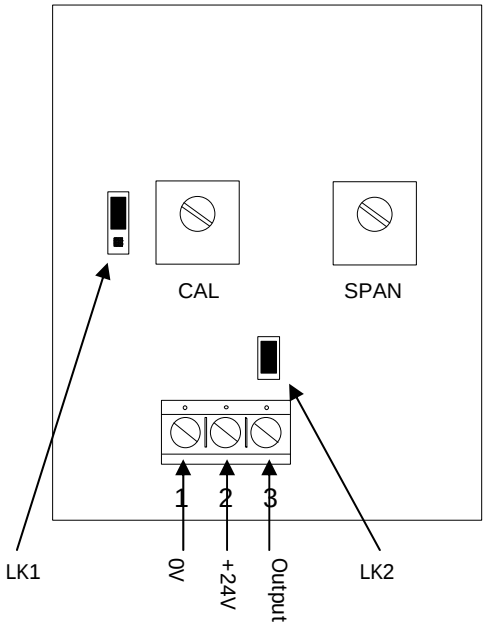
The GS-AQ911 space air quality transmitter is most suited to areas such as common rooms, canteens, office spaces and other areas where pollutants given off by occupants are of concern.

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.

Operation (continued)

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.

Connections



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

⚠ Jumper LK1 should not be changed, and do not adjust the CAL & SPAN potentiometers.

Trend Scaling

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

Brange	-100
Trange	100
Upper	100
Lower	0
Exponent	3