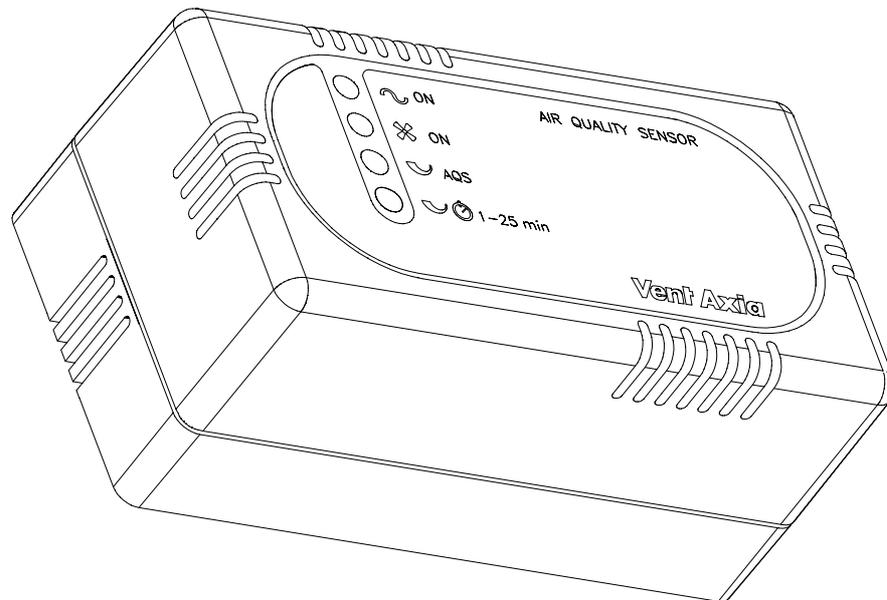


# Vent-Axia®

## SELV24 SENTINEL AIR QUALITY SENSOR

Fitting & Wiring Instructions



**Stock Ref:- 432953**

READ INSTRUCTIONS IN CONJUNCTION WITH ILLUSTRATIONS  
READ AND SAVE THESE INSTRUCTIONS



# VENT-AXIA SENTINEL SELV24 AQS FITTING AND WIRING INSTRUCTIONS

**PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLATION**

## **OPERATION**

The Air Quality Sensor has been designed specifically to monitor the air quality. It has a single pole change-over relay. When the air quality declines as a result of cigarette smoke, human perspiration and odour, kitchen vapours and other airborne contaminants the sensor will turn on/boost the unit .

When the air quality has returned to an acceptable level, the sensor will stay on for a preset timed period, adjustable between 1-25 minutes, and then switch off the unit/revert back to trickle mode.

## **INSTALLATION**

Do not use for the detection of combustible gases. The sensor is not designed for use as a smoke detector or as an alarm system.

Site this appliance away from any source of water spray, and out of reach of a person using a fixed bath or shower.

Ensure that the sensor is sited away from excessive heat, moisture and grease, e.g. cookers, heaters.

The ambient temperature working range of the Air Quality Sensor is 0 to 40°C.

## **MOUNTING**

To remove the sensor from the mounting box, push in at each end the two retaining catches located behind the slots, (using a small tool) at the same time pulling the sensor forward. This will release the sensor.

Facilities are provided for mini-conduit and M20 wiring access (UK).

Mount approximately 2 metres from the floor in a position exposed to the free circulation of air in the room. Positioning near doors, windows, chimneys, corners and recesses should be avoided. The sensor can be surface mounted or fitted to a 1 or 2 gang flush box.

The AQS can be used to directly control a duct damper when used with a 24V dc SELV power supply (VA Part No. 433193), Fig. 1, or wired directly to the Sentinel controller. The AQS may be used to switch the fan unit from MIN. speed (trickle) to MAX speed (boost), Fig. 2.

If the AQS is used for damper control in conjunction with the 24Vdc power supply (VA Part No. 433193), it is possible to connect up to 5 damper actuators.

## **WIRING**

The AQS must not be earthed. It is a Class III Safety Extra Low Voltage (SELV) product.

All electrical connections should be made by a properly qualified electrician. The siting and installation MUST comply with the current I.E.E. Regulations (BS7671 UK) or the appropriate standards in your country.

**All regulations and requirements MUST be strictly followed to prevent hazards to life and property both during and after installation, and during any subsequent servicing and maintenance.**

The SELV wiring MUST be with mains voltage rated non-metallic sheathed cable. The SELV wiring should be physically separated and insulated from any mains supply or other cabling.

When using surface wiring that is not contained in conduit, the cables must be securely clipped to the mounting surface, close to the controller.

Double check the wiring making sure all connections are secure. Fit the AQS to the mounting box with the two screws provided. Do not over-tighten the screw. Do not trap any wires when fitting the two pieces together. Switch the mains supply on and check operation.

## **TRANSFORMER**

If the mains transformer is used with the installation, Fig. 1, the transformer must be sited out of reach of a person using a fixed bath or shower. It provides a 24V dc Safety Extra Low Voltage (SELV) to the AQS, which in turn supplies voltage to a 24V dc damper control. Under these conditions, the AQS therefore may be installed within reach of a person using a fixed bath or shower.

Wiring to the mains transformer controller should be via a switched spur with a 3A fuse (UK). The installation **MUST** be provided with a double pole isolator switch with a contact separation of at least 3mm. The switch should be located outside the room if it contains a fixed bath or shower, or in accordance with mandatory wiring and safety regulations.

## **AQS SET-POINT ADJUSTMENT**

The sensor is delivered unenergised. It will stabilise at its normal operating condition within two days of power being applied.

When the power is applied the green light will illuminate.

The sensor is set as follows using a small screwdriver.

 AQS – used to set the air quality switch-on threshold level. This level will be dependent on the use of the room and the level of sensitivity required. Clockwise rotation increases sensitivity.

Adjust the  AQS until the red light illuminates. The sensor is now set to the current air quality level. Further adjustments can be made to suit room use.

  1-25 min over-run timer adjustment. Clockwise rotation increases timed over-run.

FIG 1: CONNECTION CIRCUIT FOR USE WITH BELIMO DAMPER

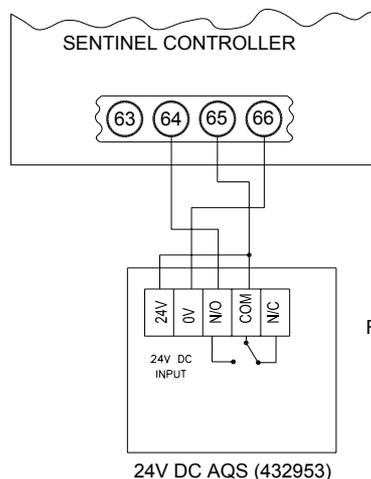
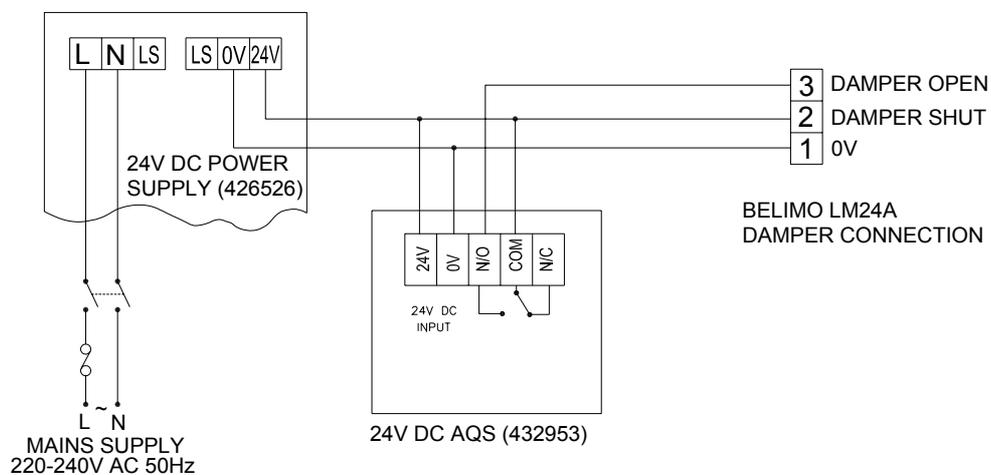


FIG 2: SYSTEM BOOST CONNECTION FOR MIN TO MAX SETTING

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**The Vent-Axia Guarantee**

Applicable only to products installed and used in the United Kingdom. For details of the Guarantee outside of the United Kingdom contact your local supplier.

Vent-Axia guarantees this product for two years from the date of purchase against faulty material or workmanship. In the event of any part being found to be defective, the product will be repaired, or at the Company's discretion the product will be replaced without charge, provided that the product:

- 1). Has been installed and used in accordance with the instruction given with each unit.
- 2). The electricity supply complies with the rating label.
- 3). Has not been misused, neglected or damaged.
- 4). Has not been modified or repaired by any person not authorized to do so by Vent-Axia.

**IF CLAIMING UNDER THE TERMS OF THE GUARANTEE**

Please return the complete product, carriage paid to your original supplier by post or in person. Please ensure that it is adequately packed and accompanied by a letter clearly marked 'Guarantee Claim' stating the nature of the fault and providing proof of the date and source of purchase.

As part of the policy of continuous product improvement  
Vent-Axia reserve the right to alter specifications without notice

***Vent-Axia***®