

Lo-Carbon

Sentinel® Multivalent

MEV Unit

Features & Benefits

- Reduces your carbon footprint
- SAP Appendix Q Eligible
- Specific fan power 0.16 W/l/s (K+1)
- Suitable for use with external sensors and controllers
- Wireless control option
- Ultra quiet - acoustically lined for low noise levels
- Complies with Building Regulations ADF (System 3)
- Manufactured in the UK from re-cyclable materials

Sentinel Multivalent continuous mechanical extract ventilation, C-MEV is designed for the simultaneous ventilation of separate areas in the home or as a multi-point extraction system for a wide range of commercial applications. The units can be installed at any angle. Where the ambient air has a high humidity content condensate drains are provided.

In support of Sentinel Multivalent, Vent-Axia offers:

- Practical advice on product selection and installation
- Guidance on solutions to meet legislation requirements
- Project management and site deliveries
- After sales support and maintenance information

The need to improve efficiency

Sentinel Multivalent has been designed to meet the exacting demands of developers, installers and users offering advanced control options and easier installation and commissioning.

- Demand Control - enables precise ventilation rate is set in 1% increments based on property size
- Integral LCD display allows installer to select appropriate low, normal and boost speeds to meet demand
- Manual and automatic control options

- Integral adjustable overrun timer and delay on timer
- Plug-n-Play automatic sensor detection
- Switched live and SELV connections
- Dry Out setting - Option set at installation, Sentinel Multivalent will run on boost for 1 week to assist in removing moisture
- Optional Wireless Control - up to 4 controllers on any one system
- Energy efficient EC/DC motors - 1/3 less energy lost to heat than a conventional AC motor
- Low Specific Fan Power (SFP) making it one of the most efficient products on the market

Legislation

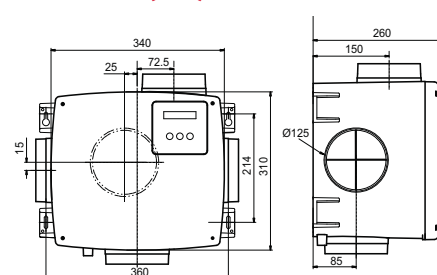
- Meets Building Regulations Approved Document F (System 3)
- SAP Appendix Q listed up to kitchen + 6 wet rooms
- Meets carbon footprint reduction targets
- Lowest SFP figures of any demand control MEV system

The need for better health

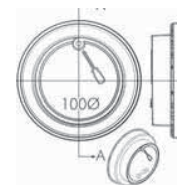
Removal of pollutants, such as moisture, carbon dioxide and external fumes are all important factors in maintaining indoor air quality, helping to create a better living environment.

- The integral humidity sensor (Sentinel Multivalent H) increases fan speed in proportion to relative humidity levels, saving energy and reducing noise
- The sensor also reacts to small but rapid increases in humidity, even if the normal trigger threshold is not reached. This unique feature ensures adequate ventilation, even for the smallest wet-room
- Night time relative humidity increment setback feature suppresses nuisance tripping as humidity gradually increase with falling temperature
- Acoustically lined - low noise levels only 18.1 dB(A) @3m

Dimensions (mm)



Reduction Pieces
Diameter: 100/125mm



Model

Model	Stock Ref.
Sentinel Multivalent	437601
Sentinel Multivalent H	445655

SAP Appendix Q

In order to make the right choice, developers and contractors should refer to Building Regulations ADL1a, SAP 2009 and Appendix Q.

SAP Appendix Q was launched in June 2006 to reward innovative ventilation manufacturers by testing and listing energy efficient products that assist in helping developers meet their Target Emission Rates (TER).

SAP is the underpinning methodology behind the Energy Performance Certificates and is used to demonstrate compliance with Building Regulations for Dwellings - Approved Document L (England and Wales), Section 6 (Scotland) and Approved Document F (Northern Ireland). Appendix Q specifically relates to wholehouse ventilation systems and lists a number of Vent-Axia Mechanical Ventilation solutions which offer an improved SAP rating over and above the default for these product types.



SAP Appendix Q Test Results

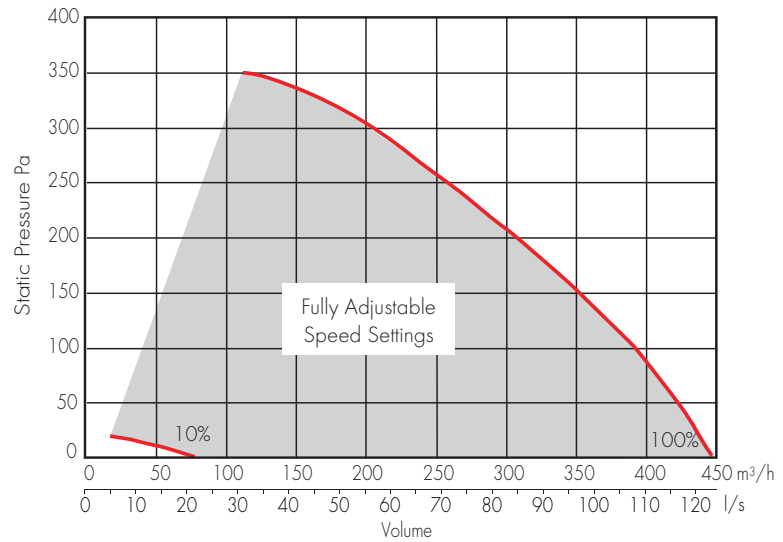
Exhaust Terminal Configuration	Fan speed setting	Total flow rate	Specific Fan Power (W/l/s)
Kitchen + 1 additional wet room	32%	21	0.16
Kitchen + 2 additional wet rooms	39%	29	0.16
Kitchen + 3 additional wet rooms	49%	37	0.17
Kitchen + 4 additional wet rooms	59%	45	0.21
Kitchen + 5 additional wet rooms	68%	53	0.24
Kitchen + 6 additional wet rooms	77%	61	0.29

To assist developers and contractors Vent-Axia can provide detailed scheme designs together with installation guidance and training.

Your Carbon Footprint

The Carbon Footprint is a measure of the amount of carbon dioxide (CO₂) emitted through the burning of fossil fuels. From a residential and commercial building perspective, it is the amount of carbon generated when you produce a kilowatt of electricity. Reducing a building's carbon footprint will ultimately reduce electricity bills and save money for every individual household or business. It will also help meet the UK target for the reduction of emissions, as well as allowing you to help the environment.

Performance Curve



■ Infinitely variable performance

Performance Guide

Stock Ref		Casing Breakout dB(A) @ 3m	Inlet Duct dB(A)	Min Speed (pwm)	FID l/s	Power Watts
437601	Min	18.1	170	10%	17	4
445655	Max	36.8	35	100%	125	45

Sound Data

Speed (PWM)		Induct sound power levels dB								dB(A) @ 3m
		63	125	250	500	1K	2K	4K	8K	
10%	Breakout	43.6	37	36.9	30.6	26.2	22.8	23.6	30.4	18.1
10%	Extract	43.8	39.9	36.1	30.4	24.6	21.8	22.	30.3	17.8
28%	Breakout	44	44.4	43.3	39	31.1	26.1	24.3	30.1	22
28%	Extract	42.2	40.1	42.2	40.5	32	23.3	23.4	30.5	22
46%	Breakout	45	42.8	46.7	44.1	38.8	35.6	26.7	30.6	25.8
46%	Extract	40.8	42.5	46.4	44.4	41	31.1	25.3	30.3	26
82%	Breakout	46.3	48.3	50	52.1	48.4	47.7	37.8	32.4	33.7
82%	Extract	46.7	49.6	48.9	54.3	51.8	42.7	38.1	34.2	36.1

Lo-Carbon Sentinel® Multivent

Controllers and Sensors

Sentinel Multivent can be used with a wide range of Vent-Axia controllers and sensors. Ranging from integral humidistats, through wireless controllers to wired remote sensors.



Integral Humidistat

- Simple Plug-n-Play installation
- Eliminates the need for additional controllers or sensors
- Reacts to any rapid increases in relative humidity or relative humidity above 60%
- Future proof - can be fitted after installation
- Self programming

Stock Ref.
437598



Ambient Response Humidity Sensor

- Pullcord override and indication light
- Changeover relay switch
- Operating range: 30% - 90%RH
- Ambient operating temp. 5°C to 40°C
- 220-240V AC
- Will fit single gang box for surface mounting

Stock Ref.
563550



Visonex PIR Sensor

- Fits any UK single gang mounting box
- Adjustable timer overrun (5-25 mins)
- Range of detection up to 10 metres
- Designed to meet IP43
- Ambient operating temp. range 0°C to 50°C

Stock Ref.
459623



Wireless Transmitter Controller Receiver Kit

- Manual boost
- Adjustable overrun timer
- Easy wire-less installation
- Reduces installation time
- Future proof - add more controllers at any time

Stock Ref.
439352



Ecotronic Humidity Sensor

- Set Point adjustable
- Maximum switching load 1 amp inductive
- Pullcord override indicator
- Ambient operating temp. 0°C to 40°C
- Supply voltage 220-240V

Stock Ref.
563532



CO₂ + Temp Room Sensor

- 240V DC
- 0 - 2000ppm CO₂ working range.
- 0 - 50°C working range
- Auto-calibrating NDIR CO₂ absorption sensor
- Thin film platinum temperature sensor for high accuracy

Stock Ref.
433257



Wireless Transmitter Controller

- Additional controller for 439352
- A maximum of 4 controllers can be used per system
- Can be connected to other accessories (eg Humidistat) to send a boost signal wirelessly

Stock Ref.
437827



Air Quality Sensor

- Ambient operating temp. 0°C to 50°
- Min - Max mode or direct damper control
- Surface mounted
- 1 - 25 min O/R timer
- Supply voltage 220-240V

Stock Ref.
563506



Ventwise

- Automatically boosts fan when temperature of the supply pipe to a shower or bath increases
- Automatically boosts fan when electric hob is switched on
- Can be used in conjunction with manual override input
- Adjustable overrun timer
- Two sensor options available.

Stock Ref.
435960