CONTROLS & ANCILLARIES 409

ENERGY SAVING CONTROLS

THE MOST FLEXIBLE ENERGY SAVING VENTILATION CONTROL SYSTEM ON THE MARKET WITH FULL BMS INTERFACE.

Touch screen user control.

ES-PIR2 sensor.

ES-CO2RM.

nuaire

BENEFITS

SIMPLE TO INSTALL

All controls are pre-assembled, configured and installed directly into the fan or air handling unit, this includes 3-port motorised valves and actuators, pipework, off coil thermostats and sensors, frost protection, etc. Site time kept to a minimum, quality and efficiency maintained.

SIMPLER SYSTEMS

No need for main VCD, no wasted energy or noise generation because the air volume can be precisely set via the integrated speed control, minimum and maximum speeds easily adjusted via Ecosmart commissioning panel.

SIMPLE, PRECISE COMMISSIONING

As recommended in Part L, Ecosmart enables the system to be accurately commissioned via an integrated speed control, minimum and maximum speeds easily adjusted via commissioning panel integral to the control.

QUIETER SYSTEMS

With Ecosmart your system is only at maximum design duty when absolutely necessary. The noise levels within your systems are lower because the fans or air handling units are rarely at full speed.

IMPROVED LIFECYCLE

Ecosmart enables the fan or air handling unit to be run at lower speeds. This reduces the maximum load and wear and therefore increases the overall working life of the units.

DEMAND VENTILATION

Only ventilates the area when you want it to - why fully ventilate a room when it's not occupied - maximum savings possible achieved.

HEALTHY ATMOSPHERE

Ecosmart has a trickle function as standard which when activated, via a simple switch, enables you to set a background ventilation rate, keeping the rooms fresh when unoccupied, whilst still saving energy. System will boost or ramp to maximum design duty when triggered by an Ecosmart or other external device.

PLUG IN CONTROLS

Simple low voltage sensors complete with pre-plugged cable means that any control function is easily achieved. You decide which conditions to monitor and the system will operate at the optimum speed.

BMS INTERFACE

Integrated BMS features enable any central system to control and monitor the fan or air handling unit via 0-10V signal. This enables full speed control and heating or cooling enable if installed and volt free status indication as standard.
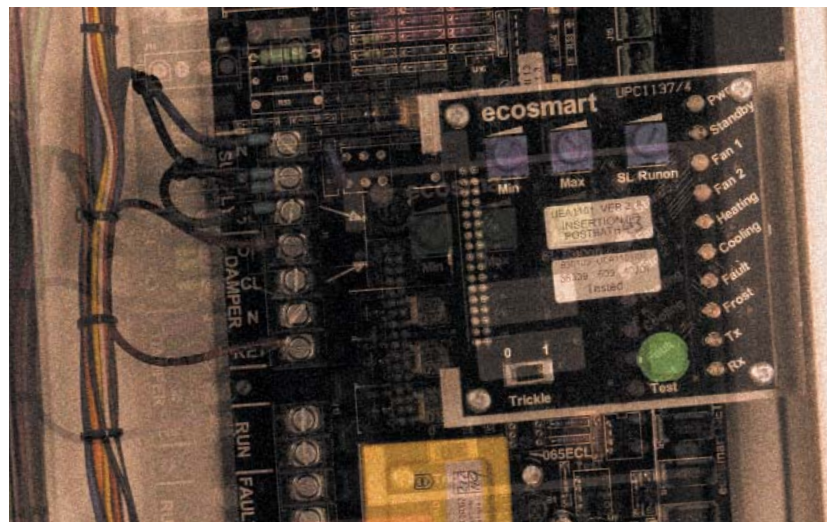
PEACE OF MIND

Ecosmart has a 5 year warranty. 1st year Parts and Labour with remaining years parts only.
For further details contact Nuaire.

PLUG IN SYSTEM
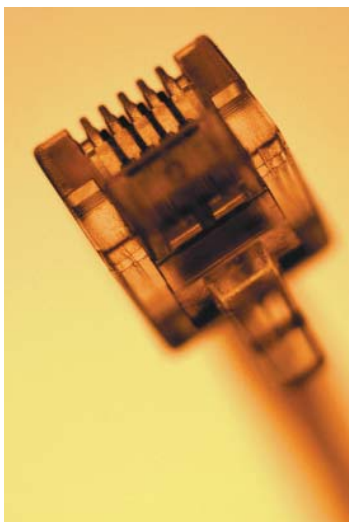
ECOSMART CONTROL EXAMPLE

ECOSMART INCLUDES A WIDE RANGE OF OPTIONS

Simple SELV wired, plug-in 'enablers' start and stop the fan, when activated from either start-up or trickle ventilation mode. These 'enablers' include time clocks, infra-red detectors, switch live contacts, humidistats, thermostats and BMS contacts.

All systems must include at least one enabler. (NB. When used, BMS control and time clocks take over all other enablers).

Integrated speed control (inverter or electronic) is included with all Ecosmart controlled fans and air handlers. ES-ISC are external to some fans and need to be hard wired eg. SQF, Airmover.

Once the fan is activated the sensor takes over. They will maintain comfort/ design conditions by automatically adjusting fan speed up and down and power or flows through elements or heating/ cooling coils. The sensors include temperature, relative humidity, CO2 or as determined by the BMS.

Stylish and simple to operate user control facilitates manual operation where desired.

BMS
0-10V dc signal to activate the system and modulate fan speed. Select/Deselect H&C.
Note: this will override any other devices (eg. ES-UCF) fitted (except in Constant Pressure fans).

ECOSMART ENABLERS & DETECTORS

Simple Plug-in System
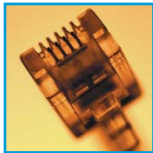
ES-PIR2 (Passive Infra-Red)
Detects movement and activates system. Incorporates a system status LED, overrun timer and timer adjustment.

ES-LCD
Touch screen user control in white incorporating time clock facility. This can control the function of the fan by manual setting or using a set of timed programs.

ES-HUMIDISTAT2
Activates the system when the RH level is above set point. Incorporates two system status LEDs (Green = OK, Red = Failure) and RH set point level adjustment.

ES-THERMOSTAT2
Activates the system when the temperature is above set point. Incorporates two system status LEDs (Green = OK, Red = Failure) and temperature set point level adjustment.

ES-AVI2
When fan failure occurs the AVI will flash a warning. Supplied with pre-plugged 10m length of communication cable.

ES-CO2RM
ES-CO2RMPP
Surface mounted room carbon dioxide (CO_2) sensors which incorporate a temperature sensor. RM = SELV option, RMPP complete with SELV AC powers supply.

ES-HTCSIG
Signal conditioning circuit for humidity, temperature and CO2 sensors.

ECOSMART SPEED CONTROLLING SENSORS

ES-TEMP2 Temperature Sensor
Modulate fan speed based on room temperature. Incorporates two system status LEDs (Green = OK, Red = Failure) and temperature set point level adjustment.

ES-RH2 Relative Humidity Sensor
Modulate fan speed based on RH level. Incorporates two system status LEDs (Green = OK, Red = Failure) and RH set point level adjustment.

ES-UCF Manual user control
Manual 'on' and 'off' system user/speed control. Incorporates two system status LEDs (Green = OK, Red = Failure).

ES-CI Semi-automatic user control
Fan, heating & cooling selected by external volt free switch, speed selected by 0-10V signal.

ES-JB Junction box
Designed to be compatible with Ecosmart System this unit is supplied with a pre-plugged 10 metre length of communications cable and has 8 further ports.

ES-CO2 Sensor
Duct mounted sensor to modulate fan speed based on CO_2 levels. Connect to fan directly. Pre-wired with 2m cable (not adjustable).

Switched Live by others
Any mains voltage signal connected to the switched live terminal (S/L) in the unit. This affects the connected fan only.

ECOSMART, BMS AND COMMISSIONING CONTROL OPTIONS

Nuaire fans and Air Handling Units can be provided with the following pre-selected control options, simply and easily by adding letters to the end of the fan code, there is no need to select or specify the controls individually if one of these options are chosen :

ES Ecosmart controls

The compact Ecosmart control module comes complete with a factory fitted Ecosmart PCB which will control the fan unit within the desired design parameters and provide the interface between all external control devices detailed on these pages.

The Ecosmart control module has the following energy saving components integrally mounted, pre-wired to interface with the purpose made PCB, all components pre-wired, configured and factory fitted by the manufacturer: (Not pre-wired to eg. SQF, Airmover).

- Integral Frequency inverter/speed controller.
- Integral maximum and minimum speed adjustment for commissioning.
- Integral adjustable run on timer.
- Integral BMS interfaces - 0- 10V speed adjustment.
- Integral BMS interfaces - Volt free failure and status indication.
- Integral background ventilation switch (trickle switch).
- Multiple IDC sockets for interconnection of sensors or fans using pre-plugged 4-core low voltage cable.
- Pre-programmed with soft start function

Ecosmart Control Device

*Sensor

240V 1 ph 50Hz

Switch live signal 100-230V
Damper Open 230V 1A
Close 230V 1A
Neutral
Return 230V signal

Contacts Volt Free
Run & Fail

N
L
SL
OP
CL
N
RET

Link wire

Fan 2 Fan 1

F3   F4

NET
0V
0-10V

Run
Run
Fault
Fault

0-10V BMS Signal

0V   = No BMS
0.25V = Off or Trickle
0.5V   = Speed 1
0.75V = Speed 1 & Cooling
1V   = Speed 1 & Heating
Heat & cool signal via NET to ES-VF

Important: The Fan will not control external Heating/cooling equipment, will only provide ON/OFF Signal

*Not included as standard.

SET UP/COMMISSIONING BOX

LED indicators

MIN   = Minimum speed adjustment
MAX   = Maximum speed adjustment
SL Run on = Switched Live Run-On Timer adjustment
TRICKLE   = Selects trickle running: 0 = off, 1 = selected
TEST   = Test button

Min   Max   SL run on

0   1

Trickle   Test

Pwr
Standby
Fan 1
Fan 2
Heating
Cooling
Fault
Frost
Tx
Rx

The Ecosmart control module has the following two options fitted as standard.
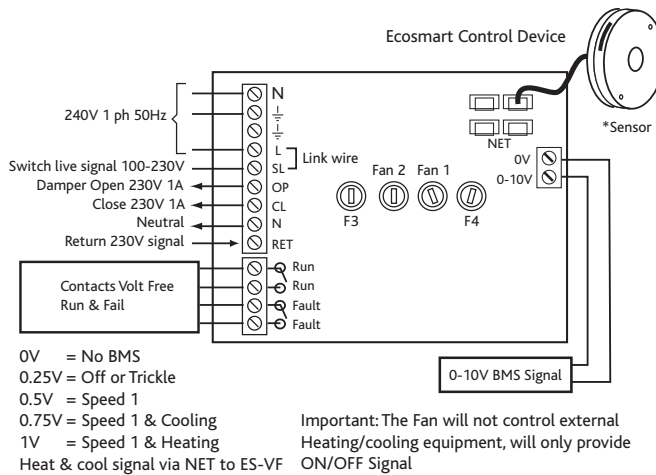
BMS interfaces

The Ecosmart control module can be pre-configured to provide the following integrated BMS interfaces.

- 0 - 10 volt input to provide a full BMS interface. This will enable the following functions:-
  Switch the unit ON/OFF.
  Switch heating or cooling ON/OFF (AHUS with relevant coils).
  Switch from low speed to high speed - variable.
  Switch from low speed to high speed - trickle and boost principle.
  Full speed control facility.

- 2 No. Volt free contacts to provide fan run and failure indication to provide system status.

- An integrated commissioning/speed control to accurately commission the system, with minimum and maximum speeds easily adjusted via a miniature dial, as recommended in Part L. This will enable the unit to be configured to run between set parameters thus saving motor power and limiting noise.
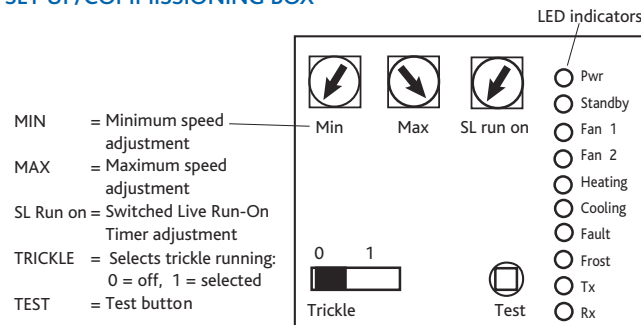
- Pre-programmed with soft start function.

COMMISSIONING SET UP

The Ecosmart control module can be pre-configured to provide the following integrated commissioning features only.

- Integrated commissioning/speed control to accurately commission the system, as recommended in Part L, This will enable the unit to be configured to run between set parameters thus saving motor power and limiting noise.

- Minimum and max speeds easily adjusted via miniature dial. The commissioning set up facility directly controls the integrated speed control/frequency inverter.

- Pre-programmed with soft start function

ENABLING SENSOR

ES-PIR2 Sensor

The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable. The ES-PIR sensor will activate the system when movement is detected. An adjustable 1-60 minute timer is incorporated to provide a run on facility. Up to 10m directly in front of lens and up to 2m at 40º to the lens axis.

When adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 1 green flash and 5 red flashes show you that the PIR timer is set to fifteen minutes.

ES-Thermostat2

The ES-Thermostat will enable the fan when the ambient temperature is 1ºC above the set point and will stop the fan when the temperature is at or below set point. The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable. Adjusting the sensor set points. Adjustable temperature setting 10 - 35ºC.

After adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 2 green flashes and 3 red flashes show a temperature set point of 23ºC.

ES-Humidistat2

The ES-Humidistat will enable the Ecosmart fan when the measured humidity level is 2% above the set point and will stop the fan when the humidity is at or below set point. The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable. Adjusting the sensor set points - Adjustable RH setting 65 - 85%.

After adjustments are made to the sensor, the LED light on the sensor will flash indicating via a small aperture on the side of the sensor the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 7 green flashes and 3 red flashes show a RH set point of 73%.

SPEED CONTROLLING DEVICES

ES-RH2 Humidity Sensor

The ES-RH Sensor will vary the ventilation rate automatically according to the measured humidity. Voltage (SELV) with power supplied from the fan unit via the communications cable. The sensor has an adjustable 65-85% RH set point.

After adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 7 green flashes and 5 red flashes show a set point of 75% RH. **Note: fan speed = 0 (i.e. off) at or below the set point.**

ES-TEMP2

This will modulate fan speed based on room temperature. The sensor operates with Safe Extra Low Voltage (SELV) with power supplied from the fan unit via the communications cable.

After adjustments are made to the sensor, the LED light on the sensor front will flash on and off to show the set point. First, green flashes will indicate the set point in TENS, then red flashes will indicate UNITS. For example 2 green flashes and 3 red flashes show a temperature set point of 23°C. **Note: fan speed = 0 (i.e. off) at or below the set point.**

Example: ——19 Set point set to 19°C Deadband
Room temperature (degree C)
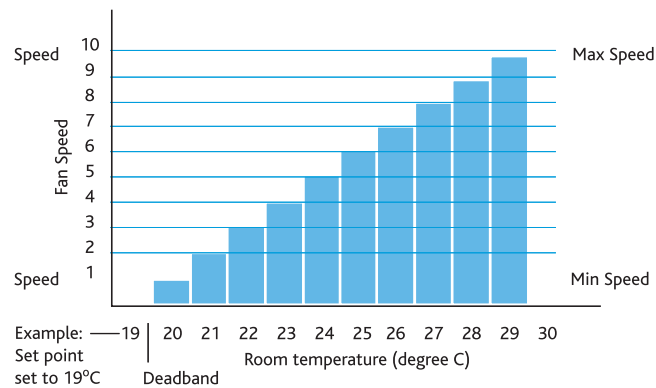
Sensor Response - Normal operation (Proportional band over ten 10°C steps)

When temperature RISES, the fans will increase speed. **(See above)** which shows a set point at 19°C. For single phase fans, the speed steps are approximate and actual running speeds will be dictated by the operating pressure of the system and the type of impeller used in the blower. Fan is switched off at set point unless the trickle switch is selected.

ES-CO2 Carbon Dioxide Sensor - Operation

The CO_2 Sensor will adjust the fan speed in response to the CO_2 concentration in the airflow. The fan speed is divided into 10 steps from minimum (step 1) to maximum (step 10). See table below for response details.

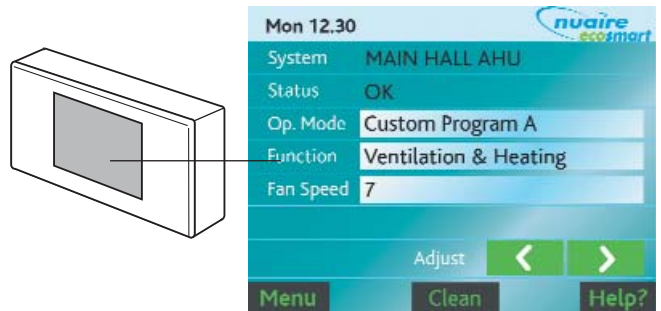| Speed	1	2	3	4	5	6	7	8	9	10
CO_2 PPM	502	580	659	737	834	902	980	1059	1137	1215

ES-LCD (Time clock included)

The ES-LCD Time clock will switch the system on and off at pre-determined times set by the user. This digital time clock will override the user control for effective on/off operation or any other enabling device eg. PIR. The time clock operates on Safe Extra Low Voltage and is powered from the fan control module. The connection is made into any 'NET' socket on the fans integral control module. See I&M for further details.
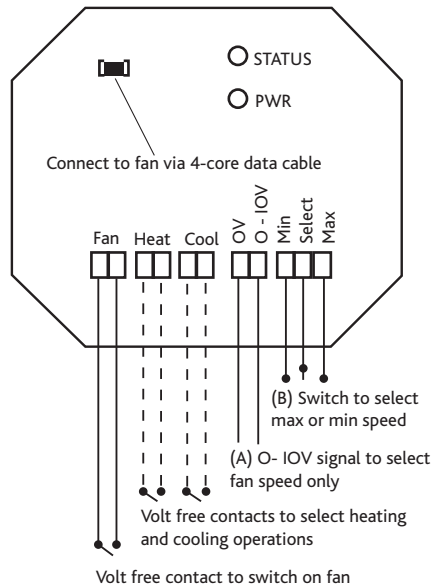

ES-LCD includes:

Ventilation, Automatic Heating & Cooling Enable/Disable. Temperature is set at main control of unit.

Mon 12.30	nuaire ecosmart
System	MAIN HALL AHU
Status	OK
Op. Mode	Custom Program A
Function	Ventilation & Heating
Fan Speed	7

Adjust 〈 〉

Menu Clean Help?

ES-CI (Ecosmart control interface)

Enables any Ecosmart unit to be controlled via any remote non Ecosmart switching device or item of plant.

○ STATUS

○ PWR

Connect to fan via 4-core data cable

Fan Heat Cool 0V 0 - IOV Min Select Max

(B) Switch to select max or min speed

(A) 0- IOV signal to select fan speed only

Volt free contacts to select heating and cooling operations

Volt free contact to switch on fan

ES-CO2RM AND ES-CO2RMPP CO2 SENSOR

ES-CO2RM

CO_2 and temperature sensor requires SELV power supply by other.

ES-CO2RMPP

CO_2 and temperature sensor supplied with SELV AC power supply.

The sensor will monitor the carbon dioxide (CO_2) and temperature (see note 1) within the room. If either reading reaches the low threshold values (i.e. C1 & T1) see opposite, then a signal will be sent to start running the fan at minimum speed.

As the room CO_2 and temperature rises, the fan speed will progressively increase in steps until the upper threshold values are reached. When both CO_2 and temperature readings are in operation, whichever reading that results in higher fan speed will be used by the fan unit.

The threshold values and other operations can be adjusted by setting DIL switches on the PCB to different positions.

Note 1: As supplied; the default operation of the sensor will be based on carbon dioxide reading. If operation with both carbon dioxide and temperature is desirable then change position of switch 7 to 'ON'.

Note 2: use switch 8 to change the off state (see table opposite).

The lower and upper threshold values can be adjusted as shown in the following tables below and overleaf.
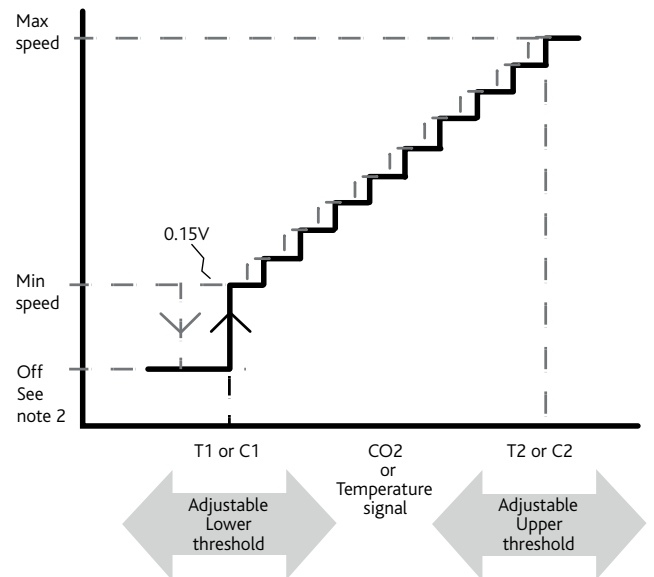
Note: Default operation is CO_2 only. To select temperature option as well please refer to I&M.

TEMPERATURE THRESHOLD SWITCHES 1-9

Switch settings	3	2	1	Threshold temperatures	
				T1 (°C)	T2 (°C)
	Off	Off	Off	25	28
	Off	Off	On	24	28
	Off	On	Off	23	28
	Off	On	On	22	28
	On	Off	Off	25	30
	On	Off	On	24	30
	On	On	Off	23	30
	On	On	On	22	30

CONTROL CHECKLIST - WHAT'S INCLUDED

The controls indicated in the checklist are incorporated in the units as standard, enabling you to co-ordinate your controls to avoid duplication and reduce costs.

Please refer to this when checking the controls specification.

www.nuairegroup.com/specifications

ecosmart

Fan Code	Fan Type	BMS compatible	Commissioning control	Run/Fail signal (volt free)	Inverter control (3 phase)	Speed control (single phase)	Pre-piped coil (c/w DRV)	Motorised control valve (c/w actuator)	Air off Temp stat	Frost protection	Heat dissipation run on	Plug in sensors (see overleaf)	Trickle and Boost switch	Automatic Bypass
Ecosmart Boxer LPHW	Air Handling	●	●	●	●	●			●	●	●	●	●	
Ecosmart Boxer Electric	Air Handling	●	●	●	●	●			●			●	●	
Ecosmart Squrbo	Supply Unit	●	●	●		●	●	●	●	●	●	●	●	
Ecosmart Squrbo Extract	Inline Single fan	●	●	●		●						●	●	
Quietscroll EST	Twin Fan	●	●	●	●	●						●	●	
Constant Pressure	Twin/Single Fan	●	●	●	●							●	●	
Extractor ESX	Inline Single fan	●	●	●								●	●	
Ecosmart Airmover ESAM*	Inline Single fan	●	●	●	●	●						●	●	
Ecosmart Squif*	Inline Single fan**	●	●	●	●	●						●	●	
Ecosmart Twin Squif*	Inline Twin fan**	●	●	●	●	●						●	●	
Ecosmart Axus*	Inline Single fan	●	●	●	●	●						●	●	
XBOXER Plate heat exchanger	Heat Recovery	●	●	●	●		●	●	●	●	●	●	●	●
XBOXER Thermal wheel (size 4 to 6)	Heat Recovery	●	●	●	●		****	****	●	●	●	●	●	●
XBOXER Thermal wheel (size 1 to 3)	Heat Recovery	●	●	●	●		●	●	●	●	●	●	●	●
XBOXER Run around coil	Heat Recovery	●	●	●	●		●	●	●	●	●	●	●	●
ES-OPUS (Not compatible with ES-LCD)	Inline/surface/recessed	●	●	●		●						●	●	

*   ESAM, Squif, Twin Squif and Axus have a separate Ecosmart control pack that needs to be hard wired.
**   Motor out of airstream.
***   Does not apply to 'NC' (no control) XBOXER units.
**** Supplied by others.

Ecosmart fans and Air Handling Units are pre-programmed and use simple plug and go control interfaces reducing the need for complicated controls.

Ecosmart enables multiple fans to be interconnected & controlled by the same sensors.

Fully BMS compatible using 0-10V interfaces and volt free contacts, simplifying all your control requirements.

Ecosmart ES-OPUS. For units with heating/cooling coils provided with Ecosmart control. An enable signal needs to be provided for heating/cooling to operate ie. ES-LCD, BMS 0-10V and ES-CI.

ES-ISC ECOSMART INVERTER SPEED CONTROL

DIMENSIONS
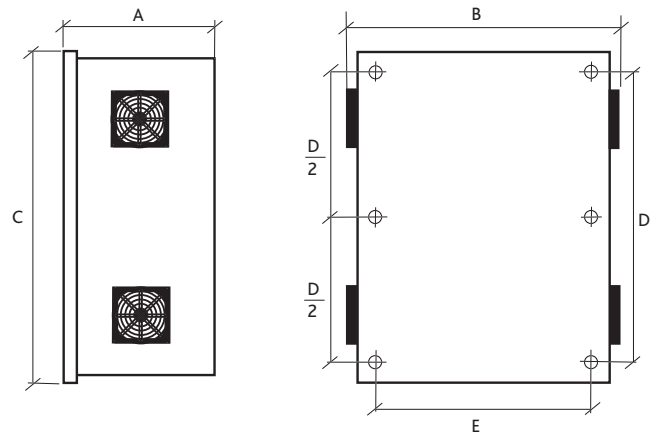
The Ecosmart Energy Saving Speed Control is designed to control selected Nuaire fans and to match the range of integrated Ecosmart control systems. The control is only available for three phase electrical supply.

The case material is of Aluzinc corrosion resistant steel, incorporates a frequency inverter, Ecosmart control board and is directly compatible with the Ecosmart range of user controls, time clocks, 'stats and sensors.

Internal mounting

Please note:

• Select a control by matching the unit full load current with the control code i.e. control code ES-ISC3.3A is suitable for a fan with a maximum full load current of 3.3A. The Inverter overload is pre-set at the rating plate value, if a lower setting is required fit an appropriately sized overload relay or adjust inverter settings.

• The mains power supply to the controller must be appropriately sized and installed via a local isolation switch (by others).
The isolator must also accommodate the 230V switched live (if used). The mains supply from the Ecosmart controller to the fan must be appropriately sized, not exceeding 30 metres and must be a screened power cable, earthed at both ends.
A four point glanding plate is formed from the base of the control and in order to main EMC compliance, EMC glanding kit is supplied.

• Not suitable for contra rotating/run and standby axial units. (Requires 2 inverters - 1 for each fan).

• All integrated sensors plug directly into the control panel.

• Refer to product datasheet No. 671432 for further information.

DIMENSIONS (mm) & WEIGHTS

Fan code	A	B	C	Weight Kg	Drill D mm	Pattern E mm
ES-ISC1.2A	230	325	410	6	340	298
ES-ISC2.4A	230	325	410	6	340	298
ES-ISC3.3A	230	325	410	6	340	298
ES-ISC4.1A	230	325	410	6	340	298
ES-ISC5.6A	290	390	455	14	470	373
ES-ISC7.3A	290	390	455	14	470	373
ES-ISC8.8A	290	390	455	14	470	373
ES-ISC12.5A	290	390	455	20	470	373
ES-ISC15.6A	290	390	455	20	470	373
ES-ISC23.1A	290	390	455	20	470	373
ES-ISC38.0A	355	525	805	40	710	510

Code descriptions

ES - ISC 2.4A

```
 |      |     |
 1      2     3
```

1. ES = Ecosmart
2. Inverter Speed Control
3. Output Current Rating

Download specification from www.nuaire.co.uk/specifications
nuaire.co.uk
417

INVERTER SPEED CONTROL
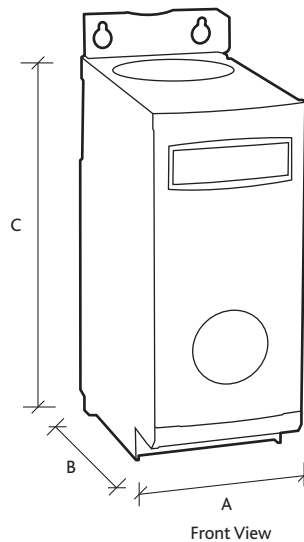
These are a range of frequency inverters for controlling the speed of 3 phase AC motors. Standard range are 400V 3 phase input units covering motor rating from 0.75kW to kW. Higher ratings and single phase input models are available upon request.

The inverters are microprocessor controlled and use state of the art Insulated Gate Bipolar Transistor (IGBT) technology. This makes them reliable and versatile. A special pulse-width modulation method with selectable pulse frequency permits quiet motor operation.

Comprehensive protective functions provide excellent inverter and motor protection.

The inverters default factory settings, is ideal for a large range of simple motor control applications. The inverters can also be used for more advanced motor control applications via its comprehensive parameter lists. The inverters can be used in both 'stand alone' applications as well as being integrated into 'Automation systems'.

DIMENSIONS (MM)

Front View

Fan code	Motor Kw	A	B	C	Weight Kg
3ISC1.2A	0.37	70	142	280	1.5
3ISC1.9A	0.35	70	142	280	1.5
3ISC2.4A	0.75	70	142	280	1.7
3ISC3.3A	1.1	70	142	280	1.7
3ISC4.1A	1.5	70	142	280	1.7
3ISC5.6A	2.2	70	142	280	1.7
3ISC7.3A	3	70	142	280	1.7
3ISC8.8A	4	70	142	280	1.7
3ISC12.5A	5.5	169	177	299	3.5
3ISC15.6A	7.5	169	177	299	3.5
3ISC23.1A	11	169	177	299	3.5
3ISC31.0A	15	260	177	320	5
3ISC38.0A	18.5	260	177	320	5
3ISC44.0A	22	260	177	320	5
3ISC59.0A	30	260	177	320	24
3ISC72.0A	37	260	177	320	24
3ISC87.0A	45	260	177	320	24

Code descriptions

3 ISC 1.2A
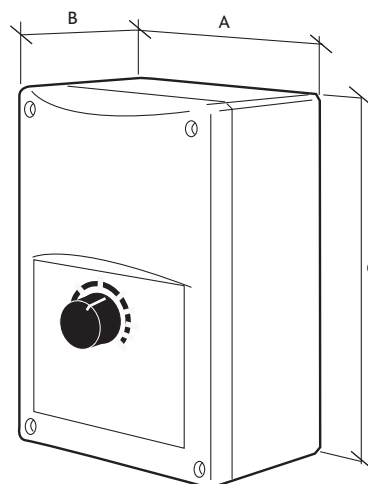
1	2	3

1. 3 Phase supply
2. Inverter Speed Control
3. Output Current Rating

nuaire

ELECTRONIC SPEED CONTROL

DIMENSIONS

The electronic speed controllers provide infinitely variable speed control from preset minimum to maximum. All models feature a boost start function, which applies maximum power to the motor for 10 seconds to prevent motor stalling before returning to selected speed.

Wiring to the motor can be either 2-wires or 3-wires control depending on the motor design.

The enclosures for NSC1-3A and NSC1-6A are rated to IP45 with the NSC1-10A rated at IP54. All controllers meet LVD and EMC directives for safety and electromagnetic compatibility.

DIMENSIONS (mm) & WEIGHTS

Dimensions (mm)

Unit Code	A	B	C	Weight kg
NSC1-3A	83	88	180	0.5
NSC1-6A	115	95	195	0.7
NSC1-10A	115	95	195	0.7

Note: Dimension B includes the dial on the front of the unit.
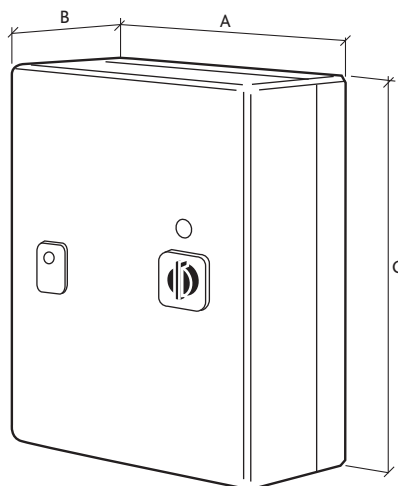
Code descriptions

NSC1 - 3A

| | |
| 1 | 2 |

1. Electronic Control Range Code, Single phase
2. Current Rating

SPCON AUTO TRANSFORMER SPEED CONTROL

DIMENSIONS

The SPCON transformer speed controllers provide either 3-step or 5-step speed control depending on the model.

Auto-transformers having class 'F' insulation are used to provide discrete voltage steps.

The 3-step models feature a power indicator, an on/off switch and a separate 3-position rocker switch as speed selector. On the 5-step models, a single rotary switch provides the on/off and speed selection function.

All models are fitted with suitable fuses for short circuit protection. The controller casing is manufactured from plastic pre-coated stell or impact resistant polycarbonate.

All models are suitable for indoor installation only. All controllers meet LVD and EMC directives for safety and electromagnetic compatibility.

Transformer speed controls produce a pure sine wave output resulting in quiet motor operation. Transformer controls are therefore preferred for noise sensitive applications.

DIMENSIONS (mm) & WEIGHTS

Fan code Single Phase	A	B	C	Weight kg
SPCON1.5	115	85	180	1.7
SPCON3.5	200	140	280	3.6
SPCON7.5	200	140	280	6.0

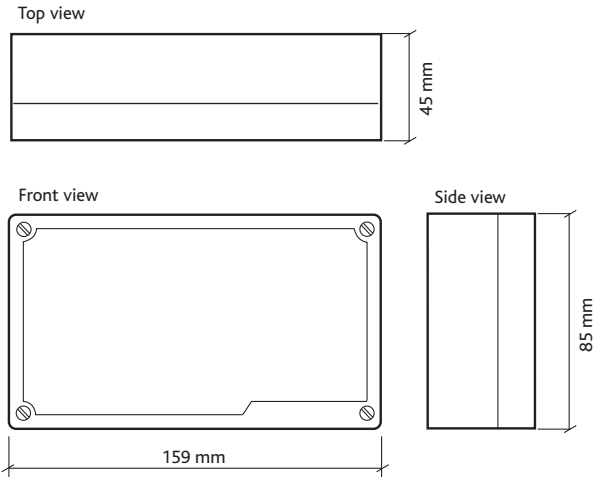### Code descriptions

SP CON 3.5

1	2	3

1. Single Phase
2. Transformer Speed Control
3. Current Rating

AIREMISER - TEMPERATURE/CURRENT SENSING CONTROL

Nuaire AIREMISER-CM automatic fan controller comprise of a main controller with the optional choice of either or both current and temperature sensors which detects when a cooker or shower is in use. This enables the AIREMISER-CM to automatically turn on an extract fan or boost a central ventilation system.

For electric showers and cookers a current sensor is used to detect the flow of current. For conventional showers (fed from a hot water system) a temperature sensor is used to detect the presence of hot water in the hot water pipe to the shower mixer. Sensors are supplied with a 12 metre cable length as standard.

DIMENSIONS (MM)

Top view

45 mm

Front view

Side view

85 mm

159 mm

Product	Product code	Installation area
Main fan control	Airemiser-CM	Kitchen
Current sensor	Airemiser-CS12	Kitchen/bathroom
Temperature sensor	Airemiser-TS12	Bathroom

Code descriptions

AIREMISER - CM

1	2

1. Range Name
2. Control Mains Box

230 - RTIM RUN ON TIMER

DIMENSIONS (MM)

7 X 25mm dia. cable entry grommets

110

110

25
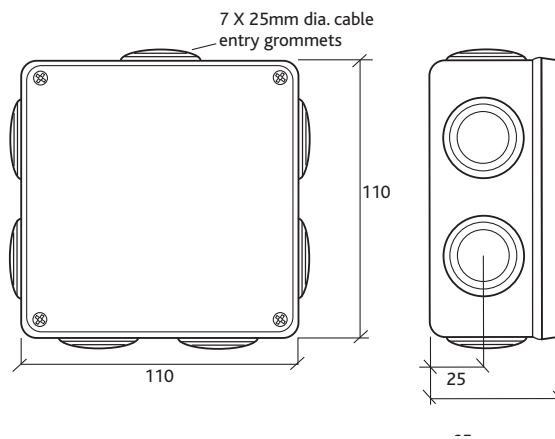
The 230-RTIM run on timer is a low cost unit designed for installation anywhere, and it's simple to install, and use.

The box is manufactured in high impact light grey polypropylene with seven side entry grommets and a base suitable for screw fixing to any flat surface. The timer is easily adjusted to provide between 5 and 30 minutes run on. To adjust the timer, remove the lid (held by four slotted screws) and turn the spindle to suit your run-on requirement.

The 230-RTIM run on timer is easy to wire. Simply pass a permanent 230V 1 phase 'live' and 'neutral' through the SUPPLY MOTOR timer to the fan unit and provide a switched live to operate the timer circuit. Switched live can be from any source eg. light switch, movement sensor etc. When the switched live is 'ON' the timer circuit is energised and the fan runs.
When 'OFF' it provides power to the fan unit for the predetermined 'run on' period and then switches off the fan.

Code descriptions

230 - RTIM

| | |
1   2

1. Voltage Rating
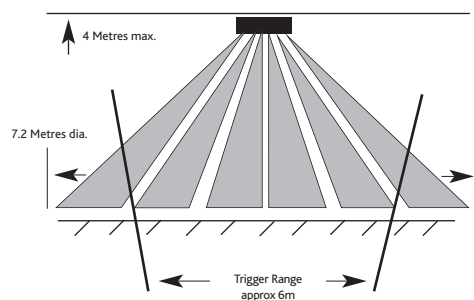2. Electronic Control Range Code

230 - P.I.R. MOVEMENT DETECTOR

The Passive Infra Red (P.I.R.) movement detector works by detecting the warmth of moving bodies walking through the area.

When the P.I.R. is triggered it will signal the fan or light to run. The 'timer' will run on for the time set. The focusing of the unit is made up of a number of smaller lenses known as facets or zones. Each zone is focussed on a different spot to give a wide area of coverage.

The P.I.R. is triggered when walking from one zone to the next, therefore for optimum detection sensitivity it will operate best when walking across the zone patterns.

360 Degree P.I.R Performance

DIMENSIONS (MM)

16mm

86mm square
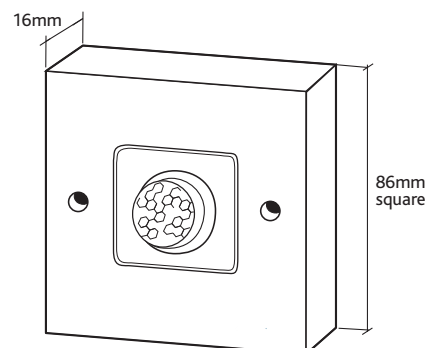
Code descriptions

230 - PIR - NT

| | | |
| 1 | 2 | 3 |

1. Voltage Rating
2. Electronic Control Range Code
3. No timer version (without NT would be with timer)

CARBON DIOXIDE SENSORS (C0$_2$)

Specifications

Current consumption	Typically 10mA plus pulses of 0.3A for) .3s (every 15s)
Warm up time	5 minutes
Sensing range	0-2000ppm CO_2 and 0-50°C
Output	0-10V dc proportional output maximum load
Installed environment	0-50°C and up to 90% RH non-condensing adjacent to fan
Maintenance	Does not require routine 6 monthly intervals
Availability	Next day
Warranty	3 years

DIMENSIONS (MM)

26mm

100mm

85mm
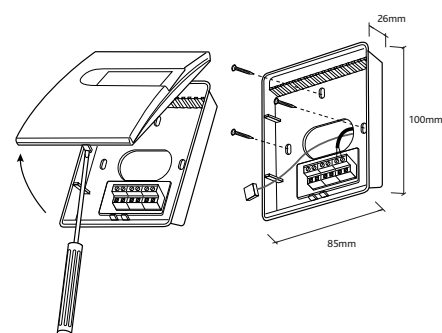
Code descriptions

CO2RM

SELV power supply (by others) must have output of 24V ac (+/-20%) or 15-35V dc.

CO2RMPP

Mains supply to power must be 230V 1-50Hz.

ANCILLARIES

ALL YOUR REQUIREMENTS FROM A SINGLE SUPPLIER.

ecosmart
OPTIONS AVAILABLE

BENEFITS

EXTRACT GRILLES
DIFFUSERS
LOUVRES
VOLUME & CONTROL DAMPERS
ACCESS DOORS
AV MOUNTS
COWLS & SHUTTERS

WIDE RANGE OF SYSTEM BALANCING DAMPERS AND BACK DRAFT SHUTTERS
Have been designed to offer long life and effective control.

A SELECTION OF ROOF TERMINALS
Provide the answer to weathering most roof penetration quickly and easily, manufactured in hard wearing GRP, Galvanised steel & Aluzinc.

NEW LAY FLAT PVC DUCTING
Designed for restricted access application and ideal for 'flat' stocking on site.

For full range of ducting please refer to Residential catalogue.

COMPREHENSIVE RANGE OF DUCTING, DUCT FITTINGS AND ACCESSORIES
Providing solutions for domestic and commercial installations.

HUGE STOCKS HELD IN A PURPOSE BUILT WAREHOUSE
Ensure many items are available next day*, contact Nuaire for details
* subject to terms and conditions

PURPOSE BUILT WAREHOUSE FACILITIES

GRILLES AND DIFFUSERS

INLET FILTERED GRILLE

Code	Description	Code	Description
100IG	100mm inlet grille c/w filter	50IG	50mm inlet grille c/w filter
100IG(WHITE)	100mm inlet grille c/w white filter		

DOUBLE DEFLECTION GRILLE (WHITE FINISH)

Code	Description	Code	Description
DD100WH/OBD	White grille 100 x 100mm	DD150WH	White grille 150 x 150mm
DD150WH/OBD	White grille 150 x 150mm, with opposed blade damper	DD200WH	White grille 200 x 200mm
DD200WH/OBD	White grille 200 x 200mm, with opposed blade damper	DD250WH	White grille 250 x 250mm
DD250WH/OBD	White grille 250 x 250mm, with opposed blade damper	DD300WH	White grille 300 x 300mm
DD300WH/OBD	White grille 300 x 300mm, with opposed blade damper	DD450WH	White grille 450 x 450 mm

SINGLE DEFLECTION GRILLE

Code	Description	Code	Description
SDG150	Satin anodised grille 150 x 150mm	SDG300	Satin anodised grille 300 x 300mm
SDG200	Satin anodised grille 200 x 200mm	SDG350	Satin anodised grille 350 x 350mm
SDG250	Satin anodised grille 250 x 250mm		

EGGCRATE GRILLE (WHITE FINISH)

Code	Description	Code	Description
EC100WH	White grille 100 x 100mm	EC100WH/OBD	White grille 100 x 100mm, with opposed blade damper
EC150WH	White grille 150 x 150mm	EC150WH/OBD	White grille 150 x 150, with opposed blade damper
EC200WH	White grille 200 x 200mm	EC200WH/OBD	White grille 200 x 200. with opposed blade damper
EC250WH	White grille 250 x 250mm	EC250WH/OBD	White grille 250 x 250, with opposed blade damper
EC300WH	White grille 300 x 300mm	EC300WH/OBD	White grille 300 x 300, with opposed blade damper
EC350WH	White grille 350 x 350mm	EC400WH/OBD	White grille 400 x 400mm, with opposed blade damper
EC400WH	White grille 400 x 400mm	EC450WH/OBD	White grille 450 x 450mm, with opposed blade damper
EC450WH	White grille 450 x 450mm	EC595WH/OBD	White grille 595 x 595mm, with opposed blade damper
EC595WH	White grille 595 x 595mm		

4 WAY DIFFUSERS WITH OPTIONAL OPPOSED BLADE DAMPERS (WHITE & ANODISED)

Code	Description	Code	Description
FW150	4 wd painted white, 150 x 150mm	FW150WH/OBD	4 wd painted white, 150 x 150 c/w opposed blade damper
FW225	4 wd painted white, 225 x 225mm	FW225WH/OBD	4 wd painted white, 225 x 225 c/w opposed blade damper
FW300	4 wd painted white, 300 x 300mm	FW300WH/OBD	4 wd painted white, 300 x 300 c/w opposed blade damper
FW375	4 wd painted white, 375 x 375mm	FW375WH/OBD	4 wd painted white, 375 x 375 c/w opposed blade damper
FW450	4 wd painted white, 450 x 450mm	FW595WH/OBD	4 wd painted white, 595 x 595 c/w opposed blade damper
FW595	4 wd painted white, 595 x 595mm		

NON VISION DOOR GRILLE

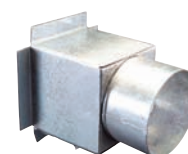| Code	Description	Code	Description
NV200X200	NVDG to suit 200sq opening, c/w frame	NV300X150	NVDG to suit 300 x 150mm opening, c/w frame
NV300X300	NVDG to suit 300 x 300mm opening, c/w frame		

GRILLE BOXES AND LOUVRES

FIXED BLADE LOUVRES

Code	Description	Code	Description
FB150	150 x 150mm, satin anodised finish	FB200	200 x 200mm, satin anodised finish
FB250	250 x 250mm, satin anodised finish	FB400	400 x 400mm, satin anodised finish
FB300	300 x 300mm, satin anodised finish	FB500	500 x 500mm, satin anodised finish
FB350	350 x 350mm, satin anodised finish	FB600	600 x 600mm, satin anodised finish
FB450	450 x 450mm, satin anodised finish		
FB550	550 x 550mm, satin anodised finish		

GRILLE BOXES

Code	Description	Code	Description
GB100-T100	100 x 100mm top spigot, outlet 100mm	GB150-S100	150 x 150mm side entry, spigot 100mm
GB150-S150	150 x 150mm side outlet 150mm	GB150-T100	150 x 150mm top spigot, outlet 100mm
GB150/4-6"	150 x 150mm multi box tappored spigot in plastic, 95mm/145mm Dia		
GB150-S125	150 x 150mm side spigot outlet 125mm	GB200-S125	200 x 200mm with 125mm side entry spigot
GB200-S150	200 x 200mm with 150mm side entry spigot	GB200-T100	200 x 200mm with 100mm top entry spigot
GB200-T125	200 x 200mm with 125mm top entry spigot	GB200-T150	200 x 200mm with 150mm top entry spigot
GB225-T150	225 x 225mm with 150mm top entry spigot	GB225-T200	225 x 225mm with 200mm top outlet
GB250-T150	250 x 250mm with 150mm top entry spigot	GB250-T200	250 x 250mm with 200mm top entry spigot
GB300-S250	300 x 300mm with 250mm side entry spigot	GB300-T150	300 x 300mm with 150mm top entry spigot
GB300-T200	300 x 300mm with 200mm top entry spigot	GB300-T250	300 x 300mm with 250mm top entry spigot
GB350-T315	350 x 350mm with 315mm top entry spigot		
GB350/6-12"	350 x 350mm with tapered spigot 145mm/245mm/295mm Dia		
GB375/6-12"	375 x 375mm with tapered spigot 145mm/195mm/295mm Dia		
GB400-T250	400 x 400mm with 250mm top spigot entry	GB400-T315	400 x 400mm with 315mm top spigot entry
GB450-T250	450 x 450mm with 250mm top spigot entry	GB450-T300	450 x 450mm with 300mm top spigot entry
GB450-T350	450 x 450mm with 350mm top spigot entry		
GB450/8-14"	450 x 450mm with tapered spigot 195mm/295mm/350mm Dia		
GB450-T400	450 opening, 400mm top spigot outlet		
GB460/8-12"	465 x 465mm with tapered spigot 200mm/250mm/300mm Dia		
GB500/8-14"	500 x 500mm with tapered spigot 195mm/295mm/350mm Dia		
GB550-T315	550 x 550mm with 315mm top spigot outlet		
GB550/8-12"	550 x 550mm with tapered spigot 200mm/250mm/300mm Dia		
GB595-S200	595 x 595mm with 200mm side spigot	GB595-T300	595 x 595mm with 300mm top spigot

GRILLES AND DIFFUSERS

EXTRACT GRILLES FOR BATHROOMS & KITCHENS

Code	Description
CPKH	Extract grille for kitchens with humidity control

CEILING DIFFUSER (COMPLETE WITH DAMPER)

Code	Description	Code	Description
DF150DA	150mm dia. Ceiling diffuser, anodised	DF300DA	300mm dia. Ceiling diffuser, anodised
DF150DW	150mm dia. Ceiling diffuser, white	DF300DW	300mm dia. Ceiling diffuser, white
DF200DA	200mm dia. Ceiling diffuser, anodised	DF350DA	350mm dia. Ceiling diffuser, anodised
DF200DW	200mm dia. Ceiling diffuser, white	DF350DW	350mm dia. Ceiling diffuser, white
DF250DA	250mm dia. Ceiling diffuser, anodised		
DF250DW	250mm dia. Ceiling diffuser, white		

TEE-PIECE (MALE FITTING)

Code	Description	Code	Description
TP100X100	Male fitting, 100 x 100 x 100mm	TP125 x 125	Male fitting, 125 x 125 x 125mm
TP150X100	Male fitting, 150 x 150 x 100mm	TP150 x 150	Male fitting, 150 x 150 x 150mm
TP200X200	Male fitting, 200 x 200 x 250mm	TP150 x 150 x 100	Male fitting, 150 x 150 x 100mm
TP200X150	Male fitting, 200 x 150 x 200mm	TP315 x 150	Male fitting 315 x 315 x 150mm

AIR VALVES (STEEL)

Code	Description	Code	Description
V100S	100mm steel	V100S*	100mm steel
V125S	125mm steel	V125S*	125mm steel
V150S	150mm steel	V200S	200mm steel

EGGCRATE GRILLE SATIN ANODISED

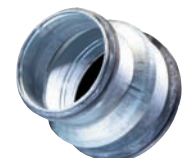| Code	Description	Code	Description
EC1120	Square duct (1070mm sq neck, 1135mm sq outside)	EC645	Square duct (600mm sq neck, 660mm sq outside)
EC720	Square duct (677mm sq neck, 737mm sq outside)	EC820	Square duct (773mm sq neck 633mm sq outside)

AIR VALVE (PLASTIC)

Code	Description	Code	Description
V100	100mm, c/w retaining ring	V125	125mm, c/w retaining ring
V150	150mm, c/w retaining ring	V200	200mm, c/w retaining ring

REDUCERS (MALE FITTING)

Code	Description	Code	Description
RED125X100	Male fitting 125 x 100mm	RED150 x 100	Male fitting 150 x 100mm
RED150X125	Male fitting 150 x 125mm	RED200 x 100	Male fitting 200 x 100mm
RED200X125	Male fitting 200 x 125mm	RED200 x 150	Male fitting 200 x 150mm
RED250X200	Male fitting 250 x 200mm	RED400 x 315	Male fitting 400 x 315mm
RED200X180	Male fitting 200 x 180mm		

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DAMPERS

AIRE VALVE & FIRE DAMPER

Code	Description	Code	Description
V-FD100	Valve & damper 100mm dia	V-FD125	Valve & damper 125mm dia

CIRCULAR VOLUME CONTROL DAMPER

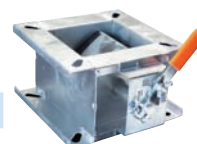| Code	Description	Code	Description
CD100D	Volume control damper c/w 100mm circular spigot	CD200D	Volume control damper c/w 200mm circular spigot
CD125D	Volume control damper c/w 125mm circular spigot	CD250D	Volume control damper c/w 250mm circular spigot
CD150D	Volume control damper c/w 150mm circular spigot		

CIRCULAR FIRE DAMPER

Code	Description	Code	Description
CFD-100	100mm dia fire damper	CFD-125	125mm dia fire damper

RECTANGULAR VOLUME CONTROL DAMPER

Code	Description	Code	Description
CD200 x 200	Flanged for duct size 200 x 200mm	CD400 x 400	Flanged for duct size 400 x 400mm

GENERAL PURPOSE SQUARE FIRE DAMPER (LESS FRAME)

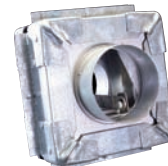| Code	Description	Code	Description
FDBG200	Duct size 200 x 200mm	FDBG250	Duct size 250 x 250mm
FDBG300	Duct size 300 x 300mm	FDBG350	Duct size 350 x 350mm
FDBG450	Duct size 450 x 450mm		

GENERAL PURPOSE SQUARE FIRE DAMPER WITH FRAME

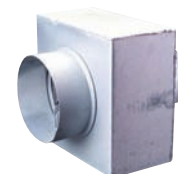| Code	Description	Code	Description
FDBG200W	C/w wall frame, duct size 200 x 200mm	FDBG350W	C/w wall frame, duct size 350 x 350mm
FDBG400W	C/w wall frame, duct size 400 x 400mm		

GENERAL PURPOSE CIRCULAR FIRE DAMPERS WITH FRAME

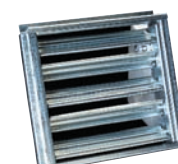| Code	Description	Code	Description
FDCG150W	C/w wall frame, 150mm dia	FDCG200W	C/w wall frame, 200mm dia
FDCG250W	C/w wall frame, 250mm dia	FDCG300W	C/w wall frame, 300mm dia
FDCG315W	C/w wall frame, 315mm dia	FDCG400W	C/w wall frame, 400mm dia

GENERAL PURPOSE CIRCULAR FIRE DAMPERS WITHOUT FRAME

Code	Description	Code	Description
FDCG100	BSB damper type 100mm dia	FDCG150	BSB damper type 150mm dia
FDCG200	BSB damper type 200mm dia		

OPPOSED BLADE DAMPER

Code	Description	Code	Description
OB150	OB damper 150 x 150mm	OB200	OB damper 200 x 200mm

SILENCERS AND CONNECTORS

FLEXIBLE CONNECTOR WITH RECTANGULAR SPIGOT

Code	Description	Code	Description
FXRC1	Spigot 152 x 76mm	FXRC2	Spigot 150 x 100mm
FXRC3	Spigot 200 x 150mm	FXRC4	Spigot 229 x 127mm
FXRC5	Spigot 305 x 152mm	FXRC6	Spigot 400 x 150mm
FXRC7	Spigot 457 x 229mm	FXRC8	Spigot 500 x 300mm
FXRC9	Spigot 762 x 304mm	FXRC10	Spigot 889 x 381mm
FXRC11	Spigot 1200 x 700mm		
FXSQ509	Spigot 509 x 509mm	FXSQ573	Spigot 573 x 573mm

FAST CLAMPS

Code	Description	Code	Description
FC-100	To suit 100m dia spigot	FC-125	To suit 125m dia spigot
FC-150	To suit 150m dia spigot	FC-200	To suit 200m dia spigot
FC-250	To suit 250m dia spigot	FC-315	To suit 315m dia spigot
FC-400	To suit 400m dia spigot	FC-500	To suit 500m dia spigot

INLINE SILENCERS

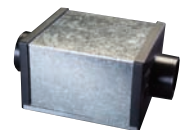| Code	Description	Code	Description
SIL-100	600mm long c/w 100mm duct connection	SIL-125	600mm long c/w 125mm duct connection
SIL-150	600mm long c/w 150 duct connection	SIL-200	600mm long c/w 200mm duct connection
SIL-250	600mm long c/w 250mm duct connection	SIL-315	600mm long c/w 315mm duct connection
SIL-400	900mm long c/w 400mm duct connection		
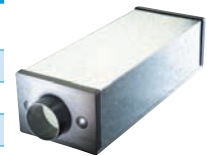
CIRCULAR FLEXIBLE CONNECTOR

Code	Description	Code	Description
CFC12	Width 125mm x 127mm dia x 159mm	CFC31	Width 315mm x 317mm dia x 284mm
CFC16	Width 150mm x 152mm dia x 159mm	CFC40	Width 400mm x 402mm dia x 349mm
CFC20	Width 200mm x 202mm dia x 184mm	CFC50	Width 500mm x 502mm dia x 475mm
CFC25	Width 250mm x 252mm dia x 234mm		

FILTER CASSETTE

Code	Description	Code	Description
SF-100	100m dia Spigot	SF-200	200m dia Spigot
SF-125	125m dia Spigot	SF-250	250m dia Spigot
SF-150	150m dia Spigot	SF-315	315m dia Spigot

DUCT HEATERS & HEAT EXCHANGERS

ELECTRIC DUCT HEATER

Code	Description	Code	Description
SH-125	(1.0KW), 125mm dia, c/w external reset	SH-150	(1.5KW), 150mm dia, c/w external reset
SH-200	(2.0KW), 200mm dia, c/w external reset	SH-250	(3.0KW), 250mm dia, c/w external reset
SH-315	(4.5KW) 315mm dia, c/w external reset	SH-400	(9KW), 400mm dia, c/w external reset

HEAT EXCHANGERS

Code	Description	Code	Description
HX125	125mm dia spigot	HX150	150mm dia spigot
HX200	200mm dia spigot	HX250	250mm dia spigot
HX315	315mm dia spigot		

COWLS AND SHUTTERS

TERMINATOR GRP ROOF COWL (BACK/DRAFT SHUTTER, BIRD AND HAND GUARDS)

Code	Description	Code	Description
TRTS-A	Roof cowl 900 x 620 x 340mm, weight 16.3kg	TRTS-B	Roof cowl 1080 x 740 x 375mm, weight 20.7kg
TRTS-C	Roof cowl 1320 x 964 x 475mm, weight 34.4kg	TRTS-D	Roof cowl 1470 x 1076 x 490mm, weight 39.2kg
TRTS-E	Roof cowl 1780 x 1170 x 485mm, weight 68.8kg	TRTS-F	Roof cowl 2260 x 1476 x 600mm, weight 114kg

GRP ROOF COWL (WITH SUPPLY/EXTRACT CHAMBER WITH BIRD GUARD)

| Code	Description	Code	Description
TRSE1	Supply/extract cowl 900 x 620 x 340mm, weight 21.3kg	TRSE2	Supply/extract cowl 900 x 620 x 340mm, weight 21.3kg
TRSE3	Supply/extract cowl 900 x 620 x 340mm, weight 31.3kg	TRSE4	Supply/extract cowl 1320 x 964 x 475mm, weight 41.4kg
TRSE5	Supply/extract cowl 1320 x 964 x 475mm, weight 41.4kg	TRSE6	Supply/extract cowl 1320 x 964 x 475mm, weight 41.4kg
TRSE7	Supply/extract cowl 1780 x 1170 x 489mm, weight 76.8kg		

SUPPLY TERMINALS

Low profile terminals are to be supplied by Nuaire. The terminal is to be rectangular, constructed in aluminium alloy and with non-rusting fixings. Twin inlets fitted with inlet/bird guards and an integral weather skirt. Filtered units are to be fitted with filter frames for removal and replacement of BS2831 and BS2963 filters.

Typical code: 630LPDT/1 - Disposable Filter. 630LPWT/1 - Washable Filter.

Code	Size	A	B	C	D	Weight with filter	Disposable	Washable
630LP*T/1	630	1350	700	280	690	15.1	67	106
800LP*T/1	800	1390	800	350	790	25.2	51	88
1000LP*T/1	1000	1820	1050	420	1040	32.5	18	28
1120LP*T/1	1120	2070	1150	500	1140	41.1	17	35
1400LP*T/1	1400	2620	1800	600	1440	91.0	3.3	6.5

Note:* D = Disposable * W= Washable
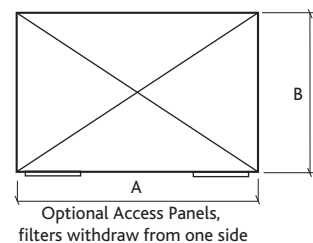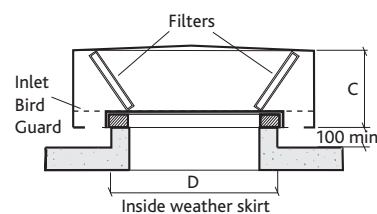
SUPPLY & EXTRACT TERMINALS

Low profile terminals are to be supplied by Nuaire. The terminal is to be rectangular, constructed in aluminium alloy and with non-rusting fixings. Twin inlets fitted with inlet/bird guards and an integral weather skirt.
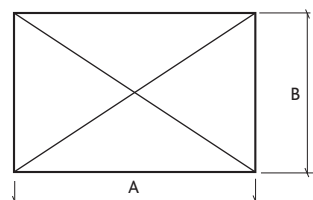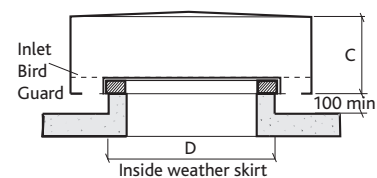
Typical code: 315LPT/1

Note: Air Pressure Drop of Attenuator (Pa) = $Z \times Q^2$

where: Z = Factor listed in table below Q = Air Volume Flow Rate (m^3/s)

Code	Size	A	B	C	D	Weight	Z Extract	Z Intake
315LPT/1	315	615	400	150	390	3.5	553	614
400LPT/1	400	745	500	165	490	5.8	222	296
500LPT/1	500	915	600	200	590	8.1	105	117
630LPT/1	630	1350	700	280	690	12.6	48	29
800LPT/1	800	1390	800	350	790	23.5	32	21
1000LPT/1	1000	1820	1050	420	1040	29.8	13	10
1120LPT/1	1120	2070	1150	500	1140	35.0	6.5	4.6
1250LPT/1	1250	2204	1250	540	1240	41.0	5	4
1400LPT/1	1400	2620	1800	600	1440	65.0	1	1

Note:* D = Disposable * W= Washable

Filters

Inlet Bird Guard

C

100 min

D

Inside weather skirt

B

A

Optional Access Panels, filters withdraw from one side

Inlet Bird Guard

C

100 min

D

Inside weather skirt

B

A

COWLS AND SHUTTERS

ROOF & WALL COWLS

Code	Description	Code	Description
4RC	Grey roof cowl 100mm	4WC	Grey wall cowl 100mm

BACKDRAFT SHUTTERS (STEEL)

Code	Description	Code	Description
BD100D	100mm dia steel shutter	BD125D	125mm dia steel shutter
BD150D	150mm dia steel shutter	BD200D	200mm dia steel shutter
BD250D	250mm dia steel shutter	BD315D	315mm dia steel shutter

ROOF CURBS (GALVANISED STEEL PURLIN BOX)

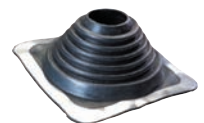| Code	Description
PBC-A	C/w curb/purlin box and sealing strip to upper face 550 x 550 x 250mm
PBC-B	C/w curb/purlin box and sealing strip to upper face 650 x 650 x 250mm
PBC-C	C/w curb/purlin box and sealing strip to upper face 900 x 900 x 250mm
PBC-D	C/w curb/purlin box and sealing strip to upper face 1000 x 1000 x 250mm
PBC-E	C/w curb/purlin box and sealing strip to upper face 1100 x 1100 x 250mm
PBC-F	C/w curb/purlin box and sealing strip to upper face 1400 x 1400 x 250mm

ROOF PIPE COWLS

Code	Description	Code	Description
RPC-4	Roof pipe cowl, 100mm dia	RPC-5	Roof pipe cowl, 125mm dia
RPC-6	Roof pipe cowl, 150mm dia	RPC-7	Roof pipe cowl, 160mm dia
RPC-8	Roof pipe cowl, 200mm dia	RPC-9	Roof pipe cowl, 224mm dia
RPC-10	Roof pipe cowl, 250mm dia	RPC-11	Roof pipe cowl, 280mm dia
RPC-12	Roof pipe cowl, 315mm dia	RPC-13	Roof pipe cowl, 300mm dia
RPC-14	Roof pipe cowl, 355mm dia	RPC-16	Roof pipe cowl, 400mm dia

ROOF PIPE FLASHING

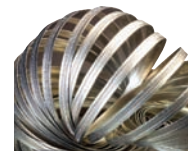| Code	Description	Code	Description
RPF10-18	Roof pipe flashing 200-450mm	RPF3-6	Roof pipe flashing 75-150mm
RPF4-7	Roof pipe flashing 100-175mm	RPF6-11	Roof pipe flashing 150-275mm
RPFK	Roof pipe flashing fixing kit		

AV MOUNTS

ANTI-VIBRATION MOUNTINGS (SET OF FOUR)

Code	Description	Code	Description
NAV1	Rubber mounting, max weight 20kg	NAV2	Rubber mounting, max weight 80kg
NAV3	Rubber mounting, max weight 180kg	NAV4	Rubber mounting, max weight 260kg
NAV5	Rubber mounting, max weight 130kg	NAV6	Rubber mounting, max weight 320kg
NAV49	Spring mounting, max weight 400kg	NAV50	Spring mounting, max weight 480kg
NAV51	Spring mounting, max weight 520kg	NAV52	Spring mounting, max weight 600kg
NAV53	Spring mounting, max weight 700kg	NAV54	Spring mounting, max weight 800kg
NAV55	Spring mounting, max weight 950kg	NAV56	Spring mounting, max weight 1110kg
NAV57	Spring mounting, max weight 1270kg	NAV58	Spring mounting, max weight 1430kg

DUCTING & ACCESS DOORS

STRANGLE BAND FIXINGS

Code	Description	Code	Description
SB1	Strip 11mm x 30m	SB2	Fittings, 100 per box

SEMI RIGID DUCTING

Code	Description	Code	Description
SRD100	100mm dia, 3m length	SRD125	125mm dia, 3m length
SRD150	150mm dia, 3m length	SRD160	160mm dia, 3m length
SRD200	200mm dia, 3m length	SRD250	250mm dia, 3m length
SRD315	315mm dia, 3m length	SRD350	350mm dia, 3m length
SRD400	400mm dia, 3m length	SRD450	450mm dia, 4m length
SRD500	500mm dia, 4m length		

RIGID DUCT CONNECTOR

Code	Description	Code	Description
RDC100	100mm dia galvanised finish	RDC125	125mm dia galvanised finish
RDC150	150mm dia galvanised finish	RDC200	200mm dia galvanised finish

ZIP TIE

Code	Description
DT33	Dynote 200mm dia (Sold Individually)

FLEXIBLE DUCTING

Code	Description	Code	Description
FLD100	100mm dia x 5m	FLD125	125mm dia x 5m
FLD150	150mm dia x 5m	FLD200	200mm dia x 5m
FLD250	250mm dia x 5m	FLD300	300mm dia x 5m
FLD315	315mm dia x 5m	FLD350	350mm dia x 5m
FLD400	400mm dia x 5m	PVC481WH	Flexible duct connector 121 x 60mm
PVC433WH	Flexible ducting 121mm x 60mm x 3m length		

FLEXIBLE DUCTING (INSULATED)

Code	Description	Code	Description
FLDI100	100mm dia, x 5m length	FLDI125	125mm dia, x 5m length
FLDI150	150mm dia, x 5m length	FLDI200	200mm dia, x 5m length
FLDI250	250mm dia, x 5m length		

DUCTING

BACKDRAFT SHUTTER

Code	Description	Code	Description
PVC494WH	100mm ID pipe, in white	PVC694WH	150mm ID pipe, in white
PVC594WH	125mm ID pipe, in white		

WALL OUTLET WITH GRAVITY FLAPS 125MM DIA CONNECTION

Code	Description	Code	Description
PVC506BR	RAL 8017 in brown	PVC506WH	RAL 9010 in white

TELESCOPIC OUTLET

Code	Description	Code	Description
PVC508BR	In brown duct dia 125mm	PVC508COT	In beige duct dia 125mm
PVC508WH	RAL 9010, in white duct dia 125mm		

FLAT DUCTING CHANNEL

Code	Description	Code	Description
PVC510WH	1m, in white 204 x 60mm	PVC515WH	1.5m, in white 204 x 60mm
PVC010WH	1m in white 110 x 54mm	PVC015WH	1.5m, in white 110 x 54mm on item enquiry
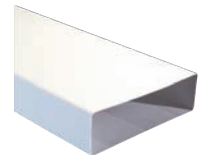
FLAT CHANNEL CONNECTOR

Code	Description	Code	Description
PVC520WH	Flat channel connector in white		

LOURVED GRILLES

Code	Description	Code	Description
PVC604BR	With flyscreen, in brown	PVC604COT	With flyscreen, in beige
PVC604WH	With flyscreen, in white	PVC5904WH	RAL9010, in white with flyscreen

DOUBLE AIRBRICK (204MM X 60MM CONNECTIONS)

Code	Description	Code	Description
PVC904WH	White	PVC904BR	Brown
PVC904COT	Beige	PVC904TC	Terracotta
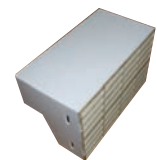
WALL KIT

Code	Description	Code	Description
PVCWALL/1	Pipe, shutter and outlet in white	PVCWALL/1BR	Pipe, shutter and outlet in brown

For other colours contact Nuaire.

DUCTING

WALL KIT

Code	Description	Code	Description
PVCWALL/3	Telescopic pipe, shutter, cowled outlet and damper in white	PVCWALL/3BR	Telescopic pipe, shutter, cowled outlet and damper in brown

For other colours contact Nuaire.

WALL KIT

Code	Description
PVCWALL/4	Telescopic pipe, cowled outlet and fittings

WALL KIT

Code	Description
PVCWALL/5	Wall installation kit, airbrick, adaptor, channel and 100mm dia spigot

For other colours contact Nuaire.

WALL KIT (100MM DIA)

Code	Description	Code	Description
PVCWALL/6	Telescopic pipe, lovured outlet (low resistance) in white	PVCWALL/6BR	Telescopic pipe, lovured outlet (low resistance) in brown
PVCWALL/6COT	Telescopic pipe, lovured outlet (low resistance) in cotswold		
PVCWALL/6TC	Telescopic pipe, lovured outlet (low resistance) in terracotta		