

LABORATORY AIRFLOW MONITORS & CONTROLS

TYPE C LED & DIGITAL - VAV SYSTEM

SPECIFICATIONS



Parc Technologique Delta Sud * 09340 Verniolle * France
Tel + 33 5 61 69 84 43 * fax + 33 5 61 67 86 03
info@seat-ventilation.com * www.seat-ventilation.com

GENERAL DESCRIPTION

Benefits

- Safety: air flow is maintained at required speed at all sash heights
- Energy savings: only the lowest required amount of air is exhausted therefore reducing energy bill
- User comfort: Low air speeds ensure comfortable noise level
- Ease of installation and maintenance
- Stable and accurate analogical sensor reading
- Attractive design: available in choice of 3 colours as well as LED or digital display.

Range

Versions:

- **C LED:** Monitors and controls air speed, LED lights
- **C DIGITAL:** Monitors and controls air speed, digital read out in meter per second or feet per minute

Features

- Audio and visual alarm
- 0 to 10V or 4-20mA VAV system to link to inverter
- 3 Pushbuttons: Fan On/Off, Light On/Off, Mute
- Automatic pre-purge with inverter
- 30s purge following fan switch off
- Alarm disabled when fan switch off
- Sash High indicator
- Auxiliary contact for fan make up, etc.

Options

- **Surface Box mounting:**
Plastic enclosure to mount the face plate to avoid profile cutting the service panel
- **Alarm Relay:**
A remote alarm can be triggered from a relay on the controller pcb
- **Battery Back up:**
Red LED alarm is still functional up to 12 hours when unit loses power
- **Custom resin stickers:**
Customisable resin stickers with logo, address, etc.

Colors

Plastic fascia is available in 3 colours (see below):

- White (standard)
- Dark Grey
- Silver



International Standards Compliance

In accordance with:

- European laboratory standard EN 14175-2
- Electromagnetic standards EN 61326:1997 / A1 : 1998 / A2 : 2001 / A3 : 2003 (*Test report RC-05-42060-1*)
- US FCC Part 15 Class B edition 2005 (*Test report RC-05-42060-2-A*).
- European RoHS directive governing disposal and recycling of electronics
- French laboratory standard XPX 15203 of Sept 1996
- CE

Components

- **Circuit board:**
Panel mounted circuit board to be installed vertically or horizontally onto fume cupboard with 2x Ø 2.8mm screws. IP55 protection ensured by 'O' ring seal. Face plate to be supplied with chemical resistant plastic sticker (horizontal or vertical) with control/push buttons on fascia. Surface box mounting optional.
- **Numerical and Antistatic Sensor:**
To be installed inside fume hood. Sensor measures air speed variations inside fume hood. Supplied with a 3.5m (5m optional) shielded cable with pin connections onto controller circuit board.
- **Power supply:**
230Vac to 12Vdc power transformer directly into controller circuit board. Comes with a Euro 2 pin plug/cord. Adaptor may be required to fit local power sockets.



Packing

- Supplied in cardboard box which includes controller circuit board, face plate, sensor and power transformer. Surface box mounting optional.

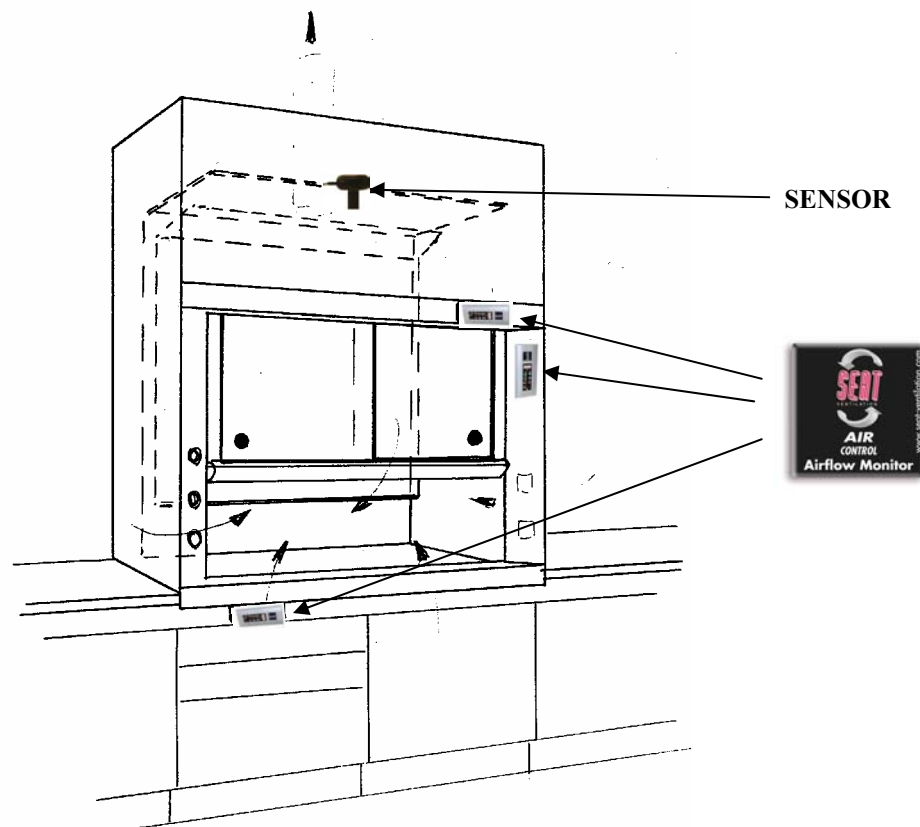
OPERATING PRINCIPLE

When the fume extraction fan is running, it causes negative pressure inside the fume cupboard. If the sash is lowered, the negative pressure become more intense causing air to be drawn through the sash opening at an increased velocity. Conversely, if the sash is raised the negative pressure becomes less intense and air velocity reduces.

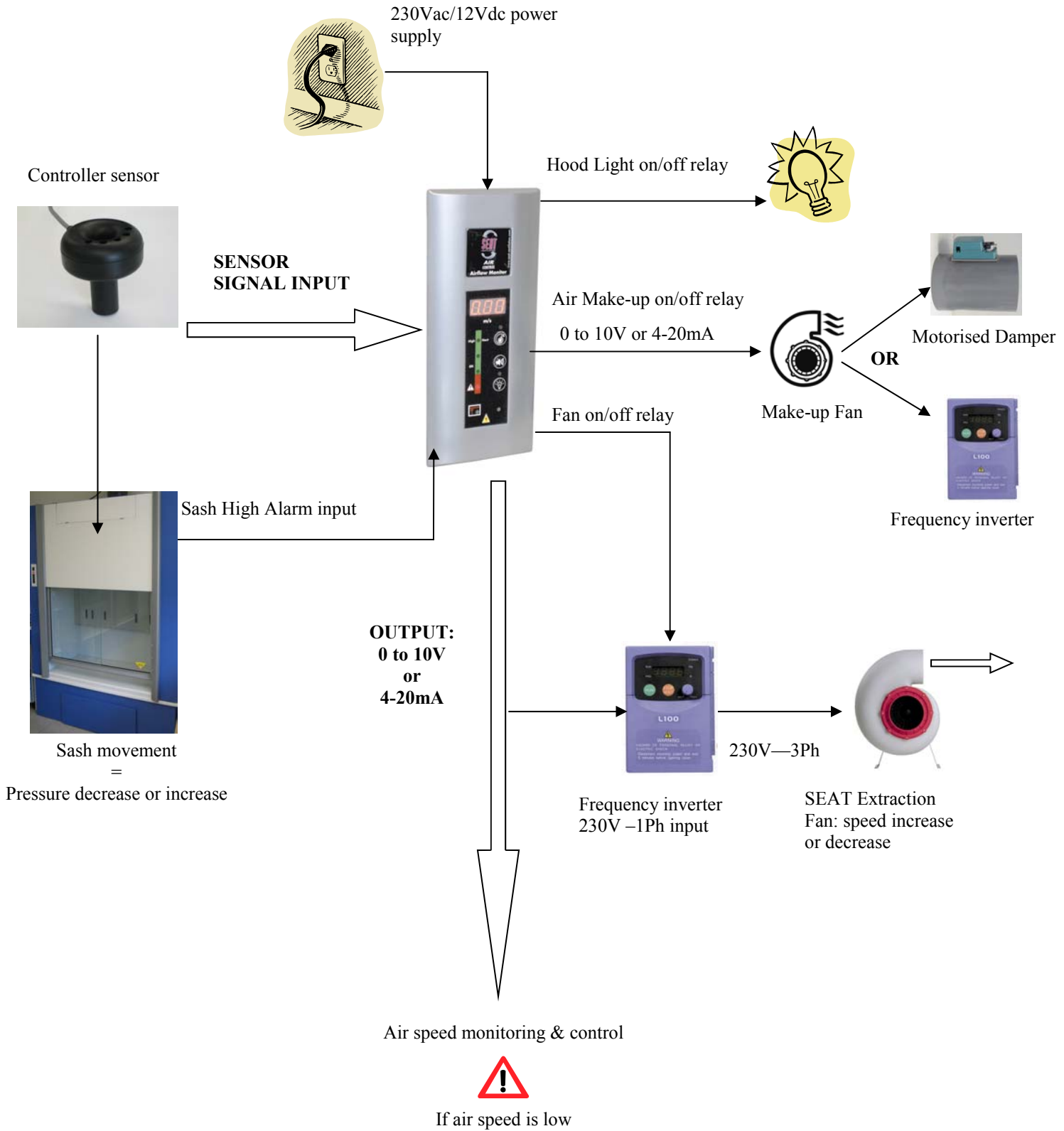
If an opening is made in the wall of the fume cupboard, air will enter it at a velocity determined by the same negative pressure that is drawing air into the sash opening. By sensing the air velocity through an opening, we can determine its level at the sash opening.

SEAT AirControl type C exploits this by the placing of a numerical sensor, or thermal anemometer into a hole in the cupboard and sending the air velocity measurement obtained to a display on the fascia panel. Based on air velocity measured, SEAT AirControl C will send a signal to an inverter to either increase or decrease fan speed.

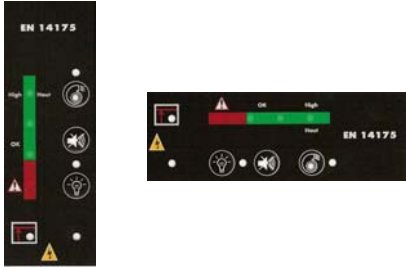







The air velocity level is displayed on the fascia either by LED illumination or digital read-out. An audible alarm will also sound if the air velocity is too low.



SCHEMATIC AIRCONTROL C LED & DIGITAL INVERTER SYSTEM

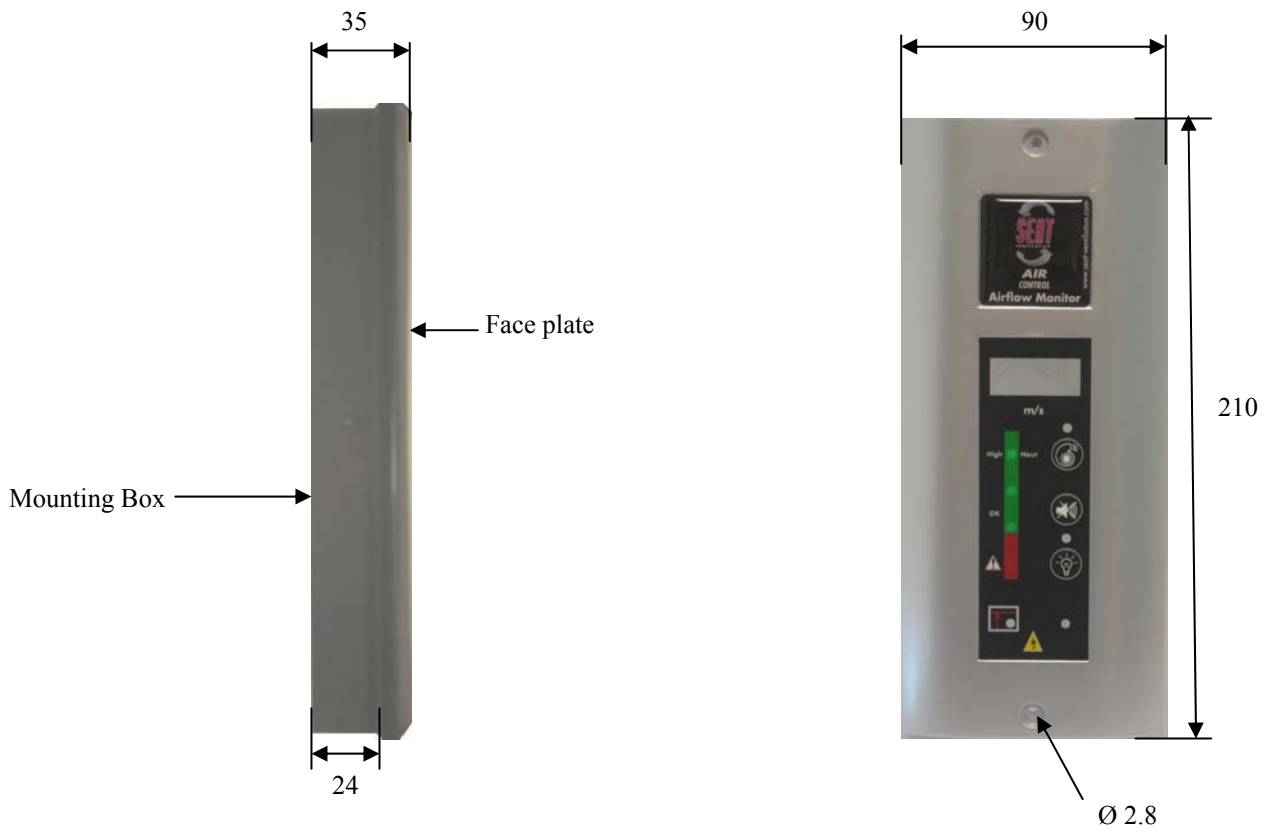


SPECIFICATIONS

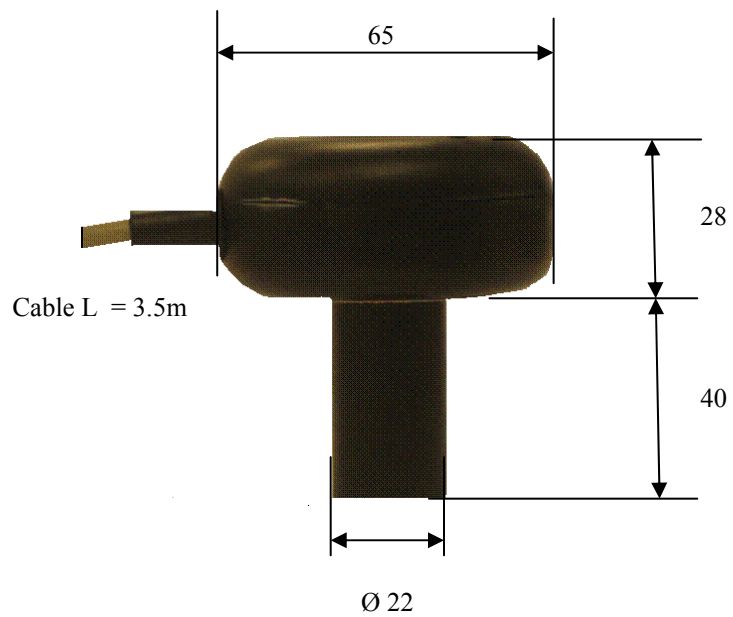
	AirControl C Standard	AirControl C Digital
		
Part Number	819703	819704
Display-Visual	2 Green LED for normal air speed 3 Green LED for high air speed 1 Red LED flashing for alarm No digital display	2 Green LED for normal air speed 3 Green LED for high air speed 1 Red LED flashing for alarm 3 digit display with velocity reading
Units	N/A	meter per second (m/s)
Display Range	N/A	0 - 2.00 m/s
Alarm Setpoint	Standard : below 0.39m/s	Standard: below 0.39m/s
Alarm Delay	Selectable: 0s, 10s or 30s	Selectable: 0s, 10s or 30s
Analog Output	0-10V or 4-20mA	0-10V or 4-20mA
Alarm Indication	1 red LED flashing and audible buzzer	1 red LED flashing and audible buzzer
Purge	Selectable: for 30s after fan is off	Selectable: for 30s after fan fan is off
Alarm Mute		
Light On/Off		
Fan On/Off		
Alarm Relay	Yes, optional	Yes, optional
Battery Back up	Yes, optional	Yes, optional
Sash High Input	Audible and orange flashing LED indicate sash position switch has been tripped	Audible and orange flashing LED indicate sash position switch has been tripped
Mounting	Flush or surface box (option)	Flush or surface box (option)
Calibration	Factory pre-calibrated @ 0.5m/s . Recalibration possible	Factory pre-calibrated @ 0.5m/s . Recalibration possible
Power Requirement	12Vdc (power supply included)	12Vdc (power supply included)
Orientation	Vertical / Horizontal	Vertical
Monitor Dimensions	Front fascia: 210L x 90W x 10D mm Surface box: 205L x 85W x 14D mm	Front fascia: 210L x 90W x 10D mm Surface box: 205L x 85W x 14D mm

SPECIFICATIONS

Monitor + Mounting Box



Sensor



NOTE: All dimensions in mm

OVERALL VIEW

