

### Temperature and CO<sub>2</sub> control of ventilation

The SVC Simple Ventilation Controller offers a simple way of controlling natural ventilation using three components -

RTS/CO<sub>2</sub> Temperature and CO<sub>2</sub> Room Sensor

SVC Control and Override Unit

G6 24v dc Power Supply Unit



The SVC receives signals from the Temp/CO<sub>2</sub> sensor and produces a 0-10v dc control output to modulate motorised ventilation units. The output is displayed on the LEDs on the fascia of the unit.

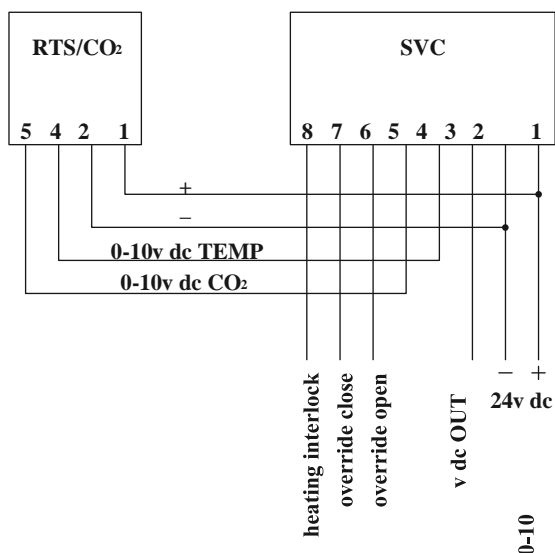
The control values are programmed into the unit at the factory and can be changed using the DIL switches on the rear of the unit (see details shown overleaf).

### Manual Override

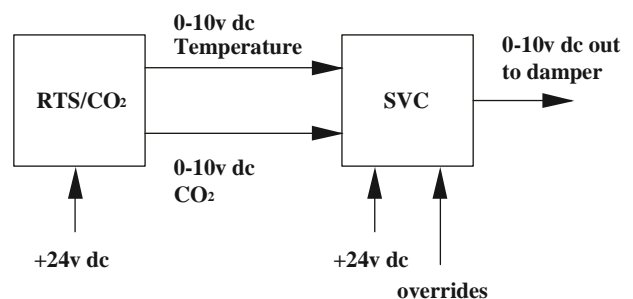
The SVC has a manual override facility to manually override the dampers to fixed positions as follows - 0%, 25%, 50%, 75% and 100% and the LEDs flash to indicate manual mode has been selected.

The override will automatically cancel after a fixed time period (optionally 30, 60, 120, 240 minutes) and revert back to automatic control. To cancel the override at any time the pushbutton should be held pressed for 2 seconds.

WIRING DIAGRAM



SCHEMATIC



### Technical Data

Output value 2 – 10v dc as described below.

The override pushbutton operates sequentially and produces a voltage output signal as follows -

	dc output
Normal – auto mode	2 - 10v dc
Press once – override dampers open 0%	2v
Press again – override dampers open 25%	4v
Press again – override dampers 50%	6v
Press again – override dampers 75%	8v
Press again – override dampers to 100%	10v

Hold for 2 seconds to revert to auto mode

Auto control parameters	Temperature	21 - 25°C
	CO <sub>2</sub>	1500-2000ppm

Other settings selectable by switches – see next sheet

The control unit will select the highest requirement from temperature and CO<sub>2</sub> and set the ventilation accordingly.

The following overrides are provided -

- Override dampers open from external signal (e.g. night cooling)
- Override dampers closed from an external signal (e.g. timeswitch, fire alarm)
- Heating interlock, the unit controls on CO<sub>2</sub> demand only

Power requirements	24v dc max 45mA
Electrical Connection	screw terminals max 1.5mm <sup>2</sup> (16AWG)
Working environmental range	0 – 90% RH (non condensing) -5 to +55°C
Storage environmental range	0 – 90% RH (non condensing) -20 to +60°C

#### Connections

Terminal 1	+24v dc
Terminal 2	GRD (0v)
Terminal 3	0-10v dc control signal out to damper motors
Terminal 4	0-10v dc temperature signal in from sensor
Terminal 5	0-10v dc CO <sub>2</sub> signal in from sensor
Terminal 6	Override dampers open (24v = open but can be overridden manually)
Terminal 7	Override dampers closed (24v = closed but can be overridden manually)
Terminal 8	Heating interlock (24v = heating on)

Housing material	Polycarbonate
Protection class	IP20
Colour of housing	Rear RAL 7035 light grey Front RAL 9003 signal white
Dimensions	85mm (w) x 100mm (h) x 26mm (d)

### Selection Switch Options

S1	S2	Manual timeout to auto
OFF	OFF	30 minutes
ON	OFF	60 minutes – factory setting
OFF	ON	120 minutes
ON	ON	240 minutes
S3		CO <sub>2</sub> Control Band
OFF		1000 - 2000ppm
ON		1500 - 2000ppm – factory setting
S4	S5	Temperature Control Band
OFF	OFF	19 - 23°C
ON	OFF	20 - 24°C
OFF	ON	21 - 25°C – factory setting
ON	ON	22 - 26°C

Other control parameters are available on request