

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

The SVC 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

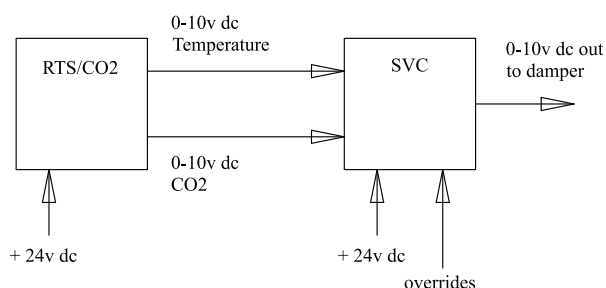


The SVC Control Unit produces a 0 - 10v dc control output to modulate motorised ventilation units. The control values are programmed into the unit at the factory so have to be specified at the time of ordering, typical values are shown overleaf. Multiple SVCs can be networked together to a central control station which can change control values such as setpoints, time programmes, etc. using Modbus protocol.

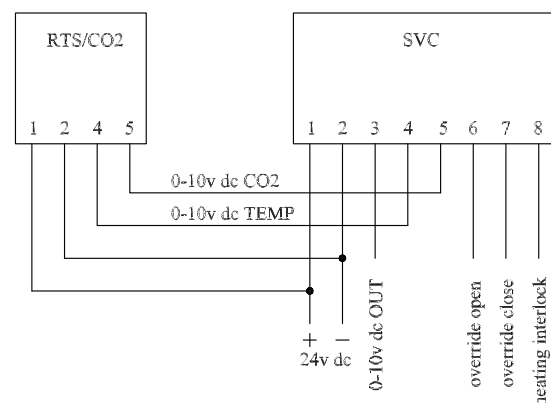
The unit consists of a pushbutton and 5 LEDs and is used to manually override the automatic control of motorised dampers to fixed positions. Each mode is indicated by an LED. The override will automatically cancel after 30 minutes (optionally 60, 120, 240 minutes) and revert back to automatic control.

The override positions are 0%, 25%, auto, 75% and 100% open.

#### SCHEMATIC



#### WIRING DIAGRAM



### Technical Data

Output value	2 – 10v dc as described below.	
Auto control parameters	Temperature	21 to 25°C
	CO <sub>2</sub>	1500 - 2000ppm

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

The pushbutton operates sequentially and produces a voltage output signal.

	dc output
Normal – auto mode	2 - 10v dc
Press once – override vents open 75%	8v
Press again – override vents open 100%	10v
Press again – override vents closed	2v
Press again – override vents 25%	4v
Press again – auto mode	2 - 10v

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)
Terminal 7	Override dampers closed (24v = closed)
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)

#### Jumper Link Info

Jumper J1	Jumper J2	Time out to Auto
not fitted	not fitted	30 minutes
fitted	not fitted	60 minutes
not fitted	fitted	120 minutes
fitted	fitted	240 minutes
Other timeout options		Special software on request

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