

# Compact Electronic Cooker Hood Controller



- ▶ Solid state electronic control module
- ▶ Microprocessor based
- ▶ Two-button operation
- ▶ Variable lamp brightness
- ▶ Lamp load up to 100W
- ▶ Variable fan speed
- ▶ Motor load up to 300W
- ▶ Status LED output
- ▶ Low standby power <1W
- ▶ Low profile module
- ▶ Open frame construction

230V  $\pm$ 20% 50Hz.

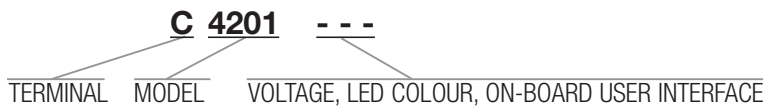
Less than 1 watt (standby power consumption)



CE Mark



RoHS compliant



▶ TERMINAL	▶ SPECIFICATION
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**C**



6.3 x 0.8

<b>Operating supply</b>	230V $\pm$ 10%
<b>Supply frequency</b>	50Hz
<b>Standby power consumption</b>	Less than 1 Watt
<b>Illumination rating (Lamp)</b>	100 Watts continuous (0.45A)
<b>Motor rating (Fan)</b>	300 Watts continuous (1.3A)
<b>Operating conditions</b>	-20°C to +70°C (-4°F to 158°F) 0 to 95% RH (non-condensing)
<b>Construction</b>	Low profile open-frame printed circuit board designed for chassis mounting, with integral heatsink
<b>Connections</b>	7-Pole mains power connector: Mains power input, lamp output, fan motor output 4-Pole control connector: For remote mounting of momentary switches and LED indicator
<b>Dimensions</b>	65mm(w) x 91mm(l) x 29mm(h)
<b>Mounting</b>	Multiple fixing holes are provided
<b>Heatsink</b>	Aluminium plate, with isolation from ac supply
<b>Flame retardancy</b>	UL94V2
<b>Electromagnetic Compatibility</b>	Compliant with directives 89/336/EEC & 92/31/EEC
<b>EMC Immunity</b>	EN 55014-2:1997 Household appliances  EN 61000-4-2:1995 Electrostatic Discharges (ESD) EN 61000-4-3:2002 RF Electromagnetic fields EN 61000-4-4:2004 Fast Transients & Bursts EN 61000-4-5:1995 Surges EN 61000-4-6:1996 Conducted disturbances EN 61000-4-11:2004 Voltage dips & interruptions
<b>EMC Emissions</b>	EN 55014-1:2001 Household appliances EN 55022 Class B:1998 Domestic environments
<b>RoHS Compliance</b>	Yes
<b>Approvals</b>	CE Mark



## USER INTERFACE

The board is supplied with two momentary push buttons already fitted, and is ready to install. The tactile buttons have a short-stroke, and can be directly operated by cosmetic front panel actuators or via springs and actuators while maintaining useful tactile click.

Each 'click' of the Lamp button adjusts the brightness, until 100% is achieved. By default the module provides 3 brightness levels.

Each 'click' of the Fan button adjusts the fan speed, starting at the lowest speed, speed can be increased in discrete steps until 100% is achieved. By default the module provides 5 fan speeds. When the fan is running, the LED is illuminated.

The remote user interface connector can be used to connect with remotely mounted control switches in place of using the on-board controls.



## OPERATION

This intelligent cooker hood control uses solid-state electronics to operate the fan motor and the lamps. Designed as an OEM solution for hood manufacturers, the open frame construction has a low profile and can be easily integrated into existing hood designs. Digital microprocessor technology allows hood feature sets to be brought right up to date, providing many benefits that cannot be achieved with conventionally switched hood controls.

Most cooker hoods have a lamp and three fan speed settings, usually operated by slide switches or push buttons. While more than three fan speeds is desirable, having more than four or five buttons can be confusing. Simple appliances require that the fan motor has separate windings or taps for each speed selection, making the motor more bulky and expensive for more than three speeds.

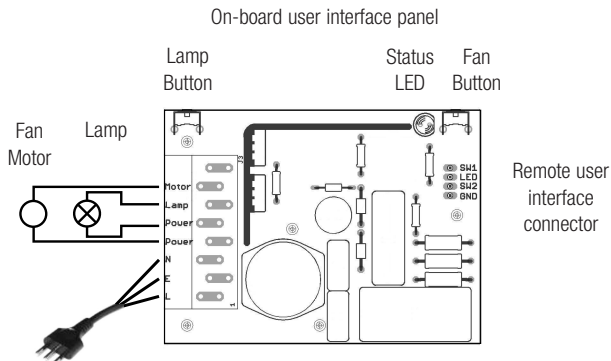
The intelligent control uses only two momentary switch buttons, one for the fan and one for the lamp. Up to ten fan speeds settings are available using only a single winding fan motor; multi-tapped fan motors are not required as the speed is electronically controlled - each button press increases the speed.

The lamp brightness can be adjusted, allowing high intensity halogen lamps to be used whilst cooking, but reduced intensity for ambient lighting or to create a particular mood in a room. Each button press increases the lamp brightness, and the electronic 'soft start' feature can prolong the working life of halogen bulbs.

Connecting to the module is a very quick and simple process; multi-pole industry standard RAST5 connectors can be used.



## SCHEMATIC



## CONNECTIONS

The controller is available with a wide variety of power connection options for large volume orders. For the mains power connections, the board is compatible with industry standard RAST5 style connectors from many popular brands, which are generally available as two part plug/sockets, and also as single part board-edge connectors. Alternatively the board can be supplied with individual 6.3mm tab terminals for mains power connections. A list of compatible connector part numbers from is available on request. Please provide details on the preferred connector type and supplier at time of ordering.

If the on-board user interface buttons are not required, the remote user interface connector can be used to connect with remotely mounted control switches. This connector is RAST2.5 style, available from many popular brands as two part plug/sockets and board-edge connectors.



## PART NUMBER

**4201**

Specify Terminal Type: 6.3 x 0.8mm tabs (Default)  
 Contact factory for RAST5 options

Specify Model Code: 4201

Specify Supply Voltage: 230V ac

Specify LED Colour: Red, Green, Blue, Yellow

On-board user interface: Yes, No