



## 16amp Auto Switching Independent Heat and Cool

### 1. Specifications

Front Panel Size	35mm x 77mm
Mounted Hole Size	28mm x 70mm (75mm deep)
Working Temperature	-10 <sup>0</sup> C to 60 <sup>0</sup> C
Display Range	-45 <sup>0</sup> C to 120 <sup>0</sup> C
Set Temperature Range	-45 <sup>0</sup> C to 120 <sup>0</sup> C
Relative Humidity	20% - 90% (non Condensing)
Power Supply	230-250VAC
Power Consumption	2 watts
Temperature Sensor	NTC, 1pc, 2 meter lead
Relay Contact Capacity	16A/250VAC
Probe Material	Stainless 304
Accuracy	±0.1 <sup>0</sup> C

Table 1.0

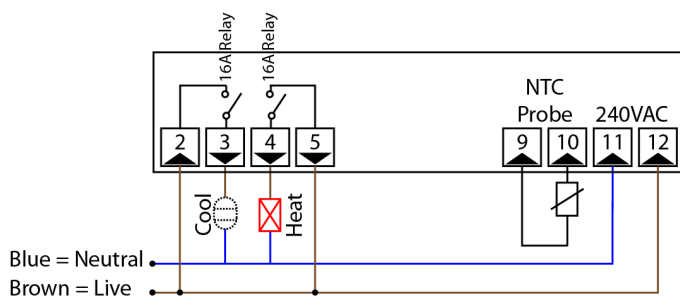
### 2. Installation

- Cut hole 28mm(high) x 70mm(wide) into panel where you wish to mount the controller. Avoid installing in places subject to strong vibrations, corrosive substances, or humidity. Let air circulate around the cooling vents. Ensure that wires for probe, power supply, and other connected devices are separated and do not cross or intertwine.
- Push the controller into the hole and attach the bracket to the rear of the controller pushing it firmly against the mounting panel.

### CAUTION !!

Before Wiring, please make sure that power is switched off.

**WARNING:** Installation should only be undertaken by a qualified electrician.



- Connect the NTC temperature probe to terminals 9 and 10 at the back of the controller. There is no polarity for the probe.
- Connect a 240VAC power source to terminals 11(Live – most likely brown) and 12(Neutral – most likely blue wire).
- Next connect one of the wires of cooling device to terminal 3 and the other wire join to the same wire that is connected to terminal 11.

- Next connect one of the wires of your heating device to terminal 4 and the other wire join to the same wire that is connected to terminal 11.
- Join 2 jumper wires from terminals 2 and 5 and join both of them to the same wire that goes into terminal 12.

### 3. Changing the Set Point

- Press SET button and the display will start to flash and show the existing set point.
- Use the up/down to change the set point.
- Leave the controller for 5 seconds and it will return back to the home screen.

### 4. Changing the Function Settings

The temperature controller has a number of different function settings that you can change to suit your particular purpose. There are 11 main functions that you have access to which are numbered from **E1-E5**, **C1-C2**, **P1-P4**. If you chose not to make any changes, the default settings shown in the “Table 2.0” will be pre-set.

To make changes to the default function settings:

- Hold down SET key until **E1** appears (approx 5 seconds) on the display.
- Keep pressing the SET key until you get to the function that you are wanting to change (ie **E1**, **E2**, **E3**...)Press the up or down key to alter the particular function setting.
- Once you finish just changing the function settings you can either press SET key again to change other function settings or just leave the controller for 5 seconds and it will return back to the home screen.

Function	Set Range	Default
<b>E1</b>	Lowest Temp. Limit	≥ -45 <sup>0</sup> C
<b>E2</b>	Highest Temp. Limit	≤ 120 <sup>0</sup> C
<b>E3</b>	Temp. Hysteresis	0.1 ~ 30 <sup>0</sup> C
<b>E4</b>	Cooling Delay Time	0-10min
<b>E5</b>	Temperature Calibration	-19.9 <sup>0</sup> C~20.0 <sup>0</sup> C
<b>C1</b>	Temperature Unit	<sup>0</sup> C OR <sup>0</sup> F
<b>C2</b>	Operation Mode Switch Delay Time	0~30min
<b>P1</b>	High Temp Alarm	-40 <sup>0</sup> C~120.0 <sup>0</sup> C
<b>P2</b>	Low Temp Alarm	-40 <sup>0</sup> C~120.0 <sup>0</sup> C
<b>P3</b>	Alarm Delay Time	0~90min
<b>P4</b>	Alarm Hysteresis	0.1~30 <sup>0</sup> C

Table 2.0

### 5. Error Messages

**LL** – Temperature probe open circuit.  
**EE** – Internal memory failure.