



Broad Range Temperature Controller with Inbuilt Alarm, 16amp, Independent Heat and Cool

1. Specifications

Front Panel Size	35mm x 77mm
Mounted Hole Size	28mm x 70mm (75mm deep)
Working Temperature	-10°C to 60°C
Display Range	-45°C to 120°C
Set Temperature Range	-45°C to 120°C
Relative Humidity	20% - 90% (non Condensing)
Power Supply	230-250VAC
Power Consumption	2 watts
Alarm Output	5A/250VAC
Temperature Sensor	NTC, 1pc, 2 meter lead
Relay Contact Capacity	16A/250VAC
Probe Material	Stainless 304
Accuracy	±0.1°C

Table 1.0

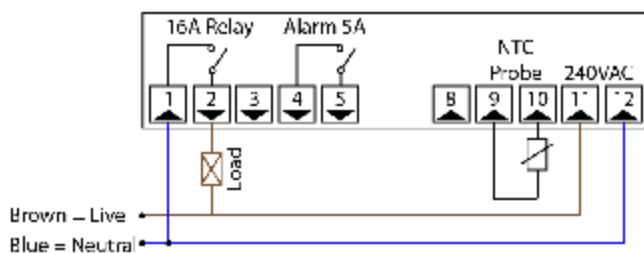
2. Installation

- 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 your heating or refrigerating device up to terminal 2. 1(Neutral) and 2(Live).

f) Alarm Wiring

The controller comes with inbuilt alarm, however if you would like to attach a more powerful alarm do so by connecting to terminals 4 and 5. The alarm relay is rated up to 5amp max.

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	
E1	Lowest Temp. Limit	≥ -45°C	-35°C
E2	Highest Temp. Limit	≤ 120°C	90°C
E3	Temp. Hysteresis	0.1 ~ 30°C	4°C
E4	Compressor Delay Time	0-10min	2 min
E5	Temperature Calibration	-19.9°C~20.0°C	0
C1	Temperature Unit	0=°C 1=°F	0
C2	Temperature Control Mode	0=Cool,1=Heat	0
P1	High Temp Alarm	-45°C~100.0°C	45°C
P2	Low Temp Alarm	-45°C~100.0°C	-40°C
P3	Alarm Delay Time	0~90min	60min
P4	Alarm Hysteresis	0.1~10°C	2.0°C

Table 2.0

5. Error Messages

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