HTC–UNIVERSAL

LOW COST UNIVERSAL REPLACEMENT FOR OTHER BRAND ANALOG TEMPERATURE CONTROLLERS

TEMPERATURE CONTROLLER
2 STAGE ON/OFF HEAT & COOL
+ 0-10VDC HEAT & COOL O/P's

Features

- **Australian Made and designed**
- Power Supply can be either 24V or 240V AC
- 10 Amp (Resistive) Potential free relay contacts
- L.E.D Indication of relay outputs
- Various remote sensor options available
- Mounts in most M.C.B din rail enclosures
- Compatibility to a vast range of AC Units & Heat Pumps
- Universal input to use existing sensor & wiring.

Use

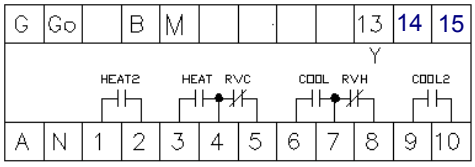
The **HTC-UNIVERSAL** Temperature Controller is designed as a low cost budget simple & reliable replacement for existing analog temperature controllers of other brands, for the control of upto 2 Stages of on/off Heating & 2 stages of Cooling (4 relay outputs) + two 0-10vdc outputs for heating & cooling actuators (or variable speed A/C compressors).
As per our legendary HTC4, this controller can be powered by 24 or 240vAC and the output relays are voltage free permitting use with 12v ~ 240 Volt circuitry as required.
The ON/OFF relay status is displayed via LED indicators.
The HTC-UNIVERSAL has a selectable input card allowing it to be used as a universal replacement controller for most old analog controllers of other brands with the ability to read the existing sensor, its even possible to convert the existing two wire room sensor circuit into an adjustable setpoint version which we can produce in our standard SRT_-SP room sensor housing. The stage deadband turn on points are not adjustable on this budget controller and are fixed at 1 degree intervals which was the typical standard settings on most 2H/2C controllers. Also as a budget controller there are no extra inbuilt inputs or outputs available although this controller can still drive our HRC4 expansion module series, but If space is limited & extra i/o is required check out our extensive range of HTC4 controllers still available on request, or use our new very powerful digital programmable controller HTC-DIGITAL-LCD.

Made in Australia
100% Australian Owned Company

Technical Data

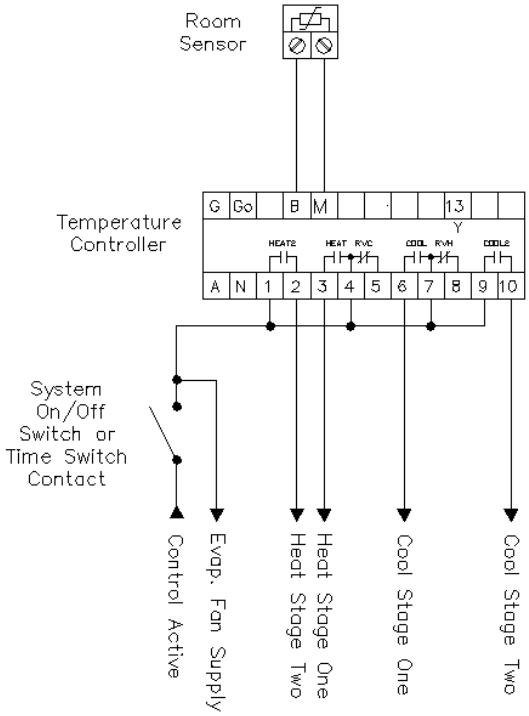
General Specifications	Operating Voltage	24 Volts AC or 240 Volts AC
	Power Consumption	
	At 240 Volts	7 VA
	At 24 Volts	1 VA
	Switching Capacity of Relays	
	Voltage	AC 0….250 Volts
	Current	10 (3) A
	Setpoint Setting Range	16…28 oC
	Stage 1 turn on point	1.0
	Stage 2 turn on point	2.0
	Switching Differential Stage 1	0.3 oC
	Switching Differential Stage 2	0.7 oC
	YH & YC 0-10VDC start point	1.0
	proportional band	1.0
	Output Indication	
	Heating	2 x Red LED's
	Cooling	2 x Green LED's
Environmental Conditions	Operation	
	Ambient Temperature	0...45oC
	Humidity	< 85 % RH (Non Condensing)
	Storage and Transport	
	Ambient Temperature	-5...65oC
	Humidity	< 90 % RH (Non Condensing)
Product Standards	C-tick	N10842
Weight	Including Packaging	470 grams
Housing	Colour	Grey
	Material	ABS POLYCARB
	UV Stabilised	YES
	Fire Retardant	YES
	Size	L105mm x W105mm x D60mm
	Mounting Method	35mm Din Rail Mountable

Terminal Designations



G	24 Volt AC Supply Active
Go	24 Volt AC Supply Ground Reference
B	Sensor Input
M	Sensor Input Common
13	Y Signal Output (For HRC Slave Relay ONLY)
14	Heating 0-10vdc signal
15	Cooling 0-10vdc signal
A	240 Volt AC Supply Active
N	240 Volt AC Supply Neutral
1	Heating Stage 2 Common
2	Heating Stage 2 Output
3	Heating Stage 1 Output
4	Heating Stage 1 & R/V for Cool Common
5	Reversing Valve for Cool Output
6	Cooling Stage 1 Output
7	Cooling Stage 1 & R/V for Heat Common
8	Reversing Valve for Heat Output
9	Cooling Stage 2 Common
10	Cooling Stage 2 Output

Application Example (1)

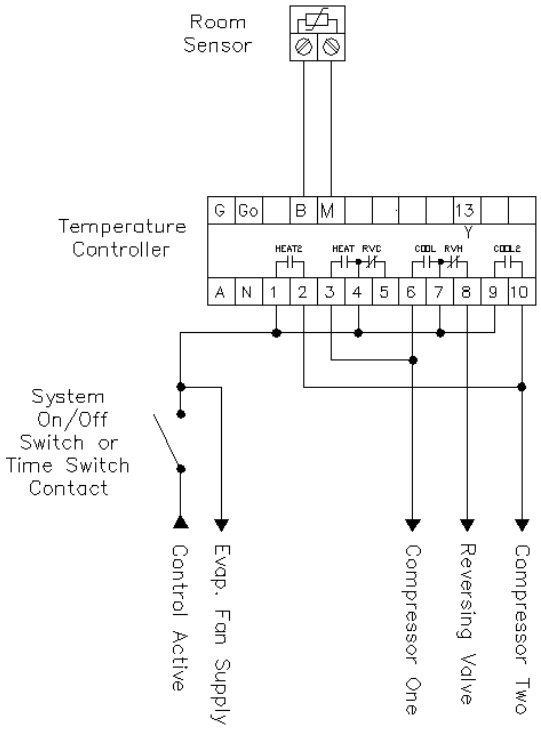


Technical Notes

Supply Voltage	The Controller requires either a 240Volt AC or 24 Volt AC Supply.
Warnings	Use ONE Supply Voltage Only Either 240 or 24 Volts AC

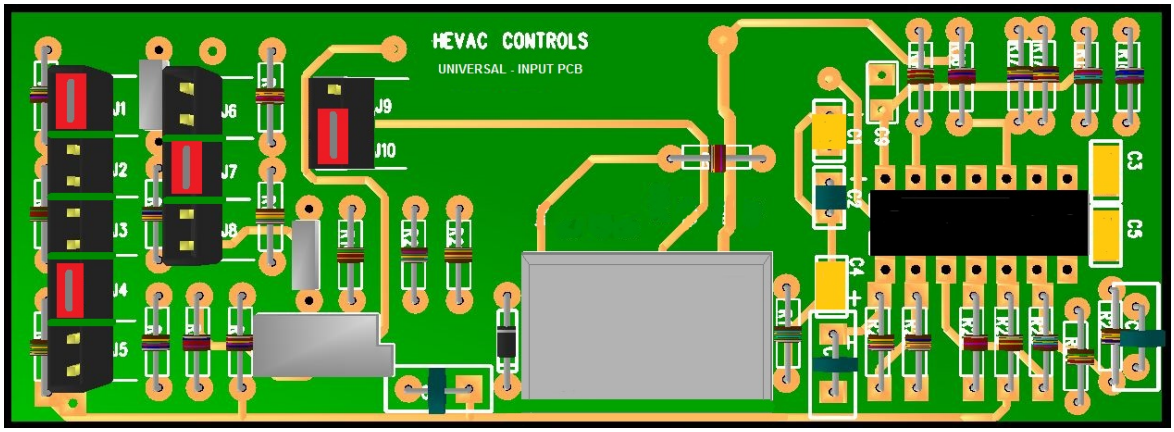
Typical for Heat/Cool type Air-conditioning Units

Application Example (2)



Technical Notes

Supply Voltage	The Controller requires either a 240Volt AC or 24 Volt AC Supply.
Reversing Valve Mode	Reversing Valve Energises for Heating
Warnings	Use ONE Supply Voltage Only Either 240 or 24 Volts AC



INTERNAL INPUT CARD SHOWING RED INPUT TYPE SELECTOR JUMPERS

TO SUIT SIEMENS SENSORS FIT JUMPERS	**J2 +J9**
TO SUIT TOUR&ANDERSON SENSORS FIT JUMPERS	**J4, J6, J7, J8, J9**
TO SUIT DELTA DORE SENSORS FIT JUMPERS	**J2 ,J7, J8, J10**
TO SUIT SATCHWELL (DR) SENSORS FIT JUMPERS	**J3, J6, J8, J10**
TO SUIT 10K TYPE-11 SENSORS FIT JUMPERS	**J1, J2, J3, J4, J5, J10**
TO SUIT REGULATOR SENSORS FIT JUMPERS	**J2, J4, J6, J7, J8, J10**