

TEMPERATURE CONTROLLER HTC- 4DE 2 Heat 2 Cool + 0-10VDC Modulating Economy Cycle Output with Comparator Override Function

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 all outputs
- Various remote sensor options available
- Mounts in most M.C.B din rail enclosures
- Comparator override function via Room or Return Air Temperature
- Modulating 0-10VDC Economy Cycle Output

Use

The HTC-4DE Temperature Controller is primarily designed for the control of 2 Stage Heat and 2 Stage Cool Air-conditioning units but also incorporates a 0-10VDC modulating economy cycle output with a Comparator Override Function.

This output is produced by comparing the Outside Air temperature to either the Return Air or Room temperatures.


All output relays are voltage free permitting use on either 240 Volt or 24 Volt circuitry.

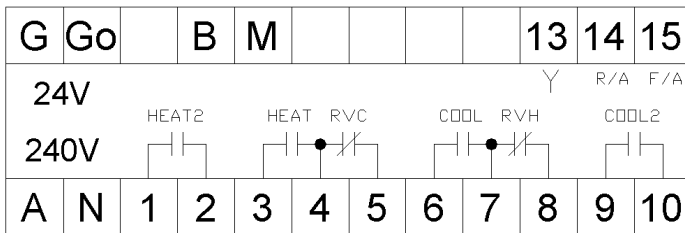
Stage switch on points are individually adjustable with their ON/OFF status displayed via LED indicators.



Made in Australia
100% Australian Owned Company

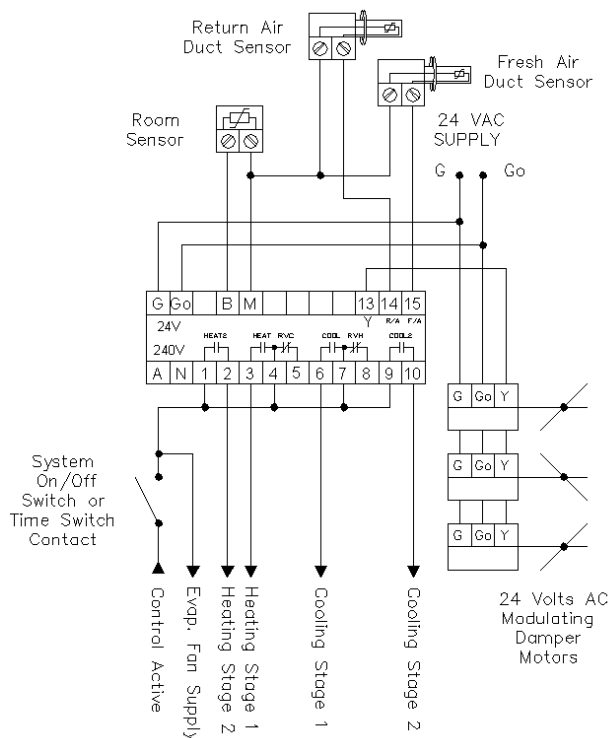
Technical Data

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
	Economy Cycle Output	0-10VDC from Setpoint
	Economy Cycle Proportional Band	1.0 oC (NON Adjustable)
	Stage Start Point Adjustment	0.5...5.0 oC (From Setpoint)
	Switching Differential Stage 1	0.3 oC (NON Adjustable)
	Switching Differential Stage 2	0.7 oC (NON Adjustable)
	Output Indication	
Heating	2 x Red LED's	
Cooling	2 x Green LED's	
Economy Cycle	1 x Yellow LED Intensity of LED varies with the Signal Output	
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



- G 24 Volt AC Supply Active
- Go 24 Volt AC Supply Ground Reference
- B Sensor Input
- M Sensor Input Common
- 13 0-10VDC Modulating Economy Cycle Output
- 14 Return Air Sensor Input (See Note 1 Below)
- 15 Fresh Air Sensor Input
- 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)

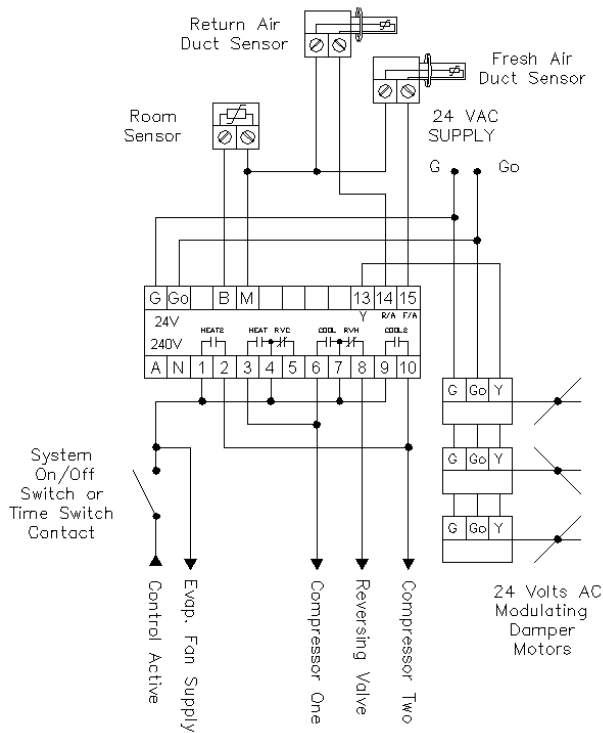


Technical Notes

- Return Air Sensor (Note 1)** When a Return Air sensor is not used a wire link must be fitted between terminals **B & 14** and the internal circuit board **Jumper** must be removed
- Supply Voltage** The Controller requires either a 240Volt AC or 24 Volt AC Supply
- 0-10VDC Economy Cycle Signal** If the controller is powered from a 240V supply then the Damper Motor 24V Ground (Go) must be connected to terminal 'M' on the HTC-4DE controller
- Warnings** Use ONE Supply Voltage Only Either 240 or 24 Volts AC

Typical for Heat/Cool type Air-conditioning Units

Application Example (2)

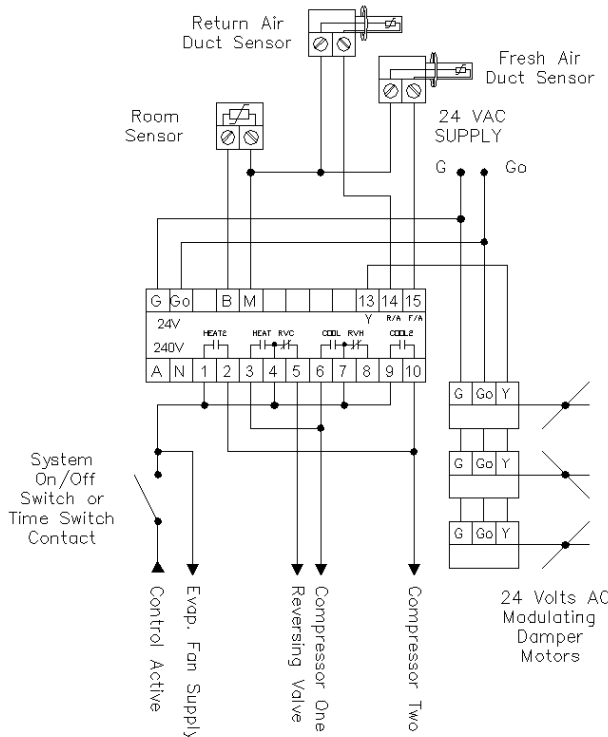


Technical Notes

- Return Air Sensor Note** When a Return Air sensor is not used a wire link must be fitted between terminals **B & 14** and the internal circuit board **Jumper** must be removed
- Supply Voltage** The Controller requires either a 240Volt AC or 24 Volt AC Supply
- Reversing Valve Mode** Reversing Valve Energises for Heating
- 0-10VDC Economy Cycle Signal** If the controller is powered from a 240V supply then the Damper Motor 24V Ground (Go) must be connected to terminal 'M' on the HTC-4DE controller
- Warnings** Use ONE Supply Voltage Only Either 240 or 24 Volts AC

Typical for Compressor Reversing Valve type A/C Units where the R/V energises on Heating

Application Example (3)



Technical Notes

- Return Air Sensor Note** When a Return Air sensor is not used a wire link must be fitted between terminals **B & 14** and the internal circuit board **Jumper** must be removed
- Supply Voltage** The Controller requires either a 240Volt AC or 24 Volt AC Supply
- Reversing Valve Mode** Reversing Valve Energises for Cooling
- 0-10VDC Economy Cycle Signal** If the controller is powered from a 240V supply then the Damper Motor 24V Ground (Go) must be connected to terminal 'M' on the HTC-4DE controller
- Warnings** Use ONE Supply Voltage Only Either 240 or 24 Volts AC

Typical for Compressor Reversing Valve type A/C Units where the R/V energises on Cooling