

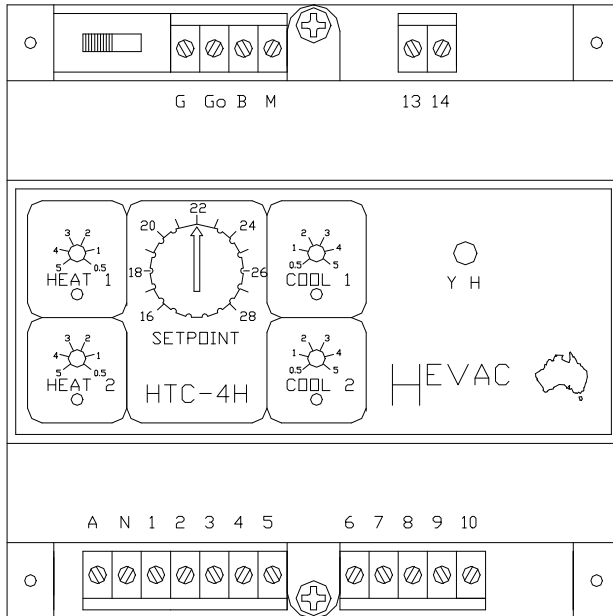
**HTC SERIES**



Dual Voltage  
Enabled Controller ®

**HTC- 4H**

**2 HEAT/2 COOL  
CONTROLLER with  
MODULATING HEATING  
VALVE OUTPUT**



*The **HTC-4H** temperature controller is primarily designed for the control of 2 Heat and 2 Cool air-conditioning units, but also incorporates an 0-10 VDC output for a Heating hot water valve or electric element current valve.*

*A Heating water pump start relay output is also provided.*

*The **HTC-4H** controller is ideally suited for DIN rail mounting in a switchboard, or directly inside the A/C unit if required.*

**Features**

- Australian made and designed.
- Power Supply can be either 24v or 240v A.C ®
- 10 AMP (resistive) Potential free relay contacts.
- L.E.D Indication of all outputs.
- Various remote sensor options available.
- Adjustable Heating water pump start relay output.
- Modulating 0-10 VDC Heating Valve Output.

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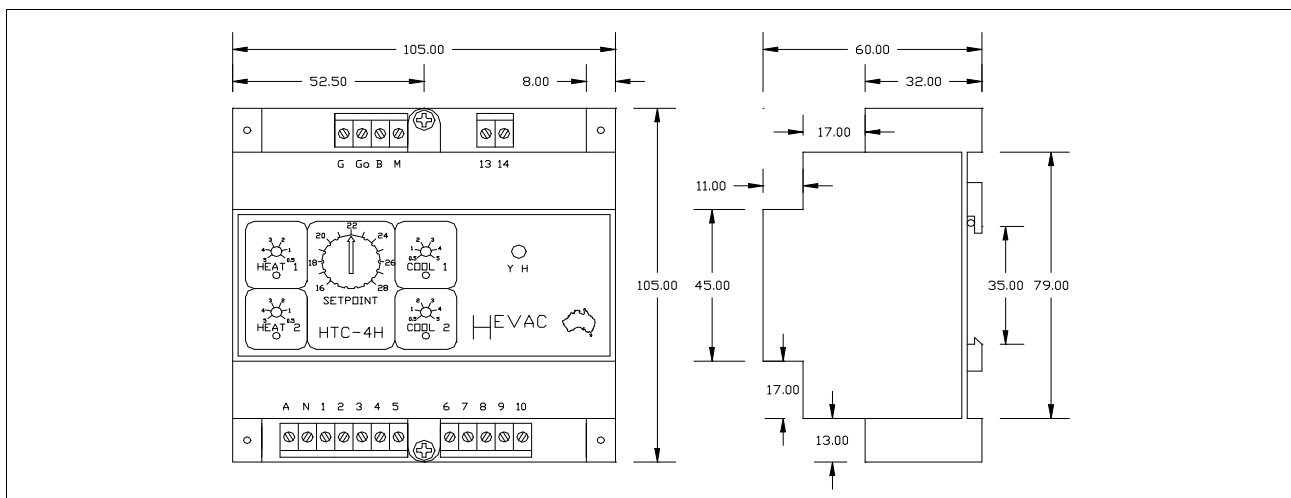
TECHNICAL: [technical@hevac.com.au](mailto:technical@hevac.com.au)

## HTC-4H Technical Specifications

Power supply	24VAC or 240VAC
Power consumption 240 volts	7 VA
Power consumption 24 volts	1 VA
Heating Valve Output	0-10 VDC from Setpoint
Heating Valve Proportional Band	1 Degrees Celsius
Heating and Cooling relay outputs	240VAC 10 amp resistive, 3 amp inductive
Temperature range	16 to 28 Degrees Centigrade
Switching differential for STAGE 1	0.3 Degrees Centigrade
Switching differential for STAGE 2	0.7 Degrees Centigrade
Stage start point adjustment range	0.5 to 5.0 Degrees Centigrade
Output indication	Green LED for Cooling Red LED for Heating
(Intensity of LED varies with the Signal Output)	Red LED for Heating Valve Output
Mounting method	35mm DIN rail (Not supplied)

## Dimensions

ALL DIMENSIONS IN MILLIMETRES



## Terminal Designations

<b>G</b>	24 VOLT AC SUPPLY ACTIVE	<b>3</b>	HEATING STAGE 1 OUTPUT
<b>Go</b>	24 VOLT AC SUPPLY GROUND REFERENCE	<b>4</b>	(HEATING STAGE 1 & R/V FOR COOL) COMMON
<b>B</b>	SENSOR INPUT	<b>5</b>	REVERSING VALVE FOR COOLING OUTPUT
<b>M</b>	SENSOR INPUT COMMON	<b>6</b>	COOLING STAGE 1 OUTPUT
<b>14</b>	0-10VDC HEATING VALVE OUTPUT	<b>7</b>	(COOLING STAGE 1 & R/V FOR HEAT) COMMON
<b>A &amp; N</b>	240 VOLT AC SUPPLY	<b>8</b>	REVERSING VALVE FOR HEATING OUTPUT
<b>1</b>	HEAT STAGE 2 COMMON	<b>9</b>	COOLING STAGE 2 COMMON
<b>2</b>	HEATING STAGE 2 OUTPUT	<b>10</b>	COOLING STAGE 2 OUTPUT

## HTC-4H for Compressor Reversing Valve Type A/C Units with Heating Valve

**OPTION ONE**

**OPTION TWO**

**TECHNICAL NOTES**

**Option 1**  
Reversing Valve Energises on a HEATING CALL.

**Option 2**  
Reversing Valve Energises on a COOLING CALL.

**Supply Voltage**  
The Controller requires either a 240 Volt AC or 24 Volt AC Supply.  
If the controller is powered from a 240 Volt Supply then the Valve Motor 24 Volt Ground (Go) must be connected to Terminal 'M' on the controller.

## Electrical Schematic for Heat / Cool Type A/C Units with Heating Valve

**TECHNICAL NOTES**

Typical for A/C Units Labeled HEAT / COOL

**Supply Voltage**  
The Controller requires either a 240 Volt AC or 24 Volt AC Supply.  
If the controller is powered from a 240 Volt Supply then the Valve Motor 24 Volt Ground (Go) must be connected to Terminal 'M' on the controller.

### Quick Test Information

All HEVAC Controllers are Factory Calibrated and Pre-set to Industry Standard Defaults prior to dispatch. If you require further information on these Settings please Refer to the Technical Specifications Page.

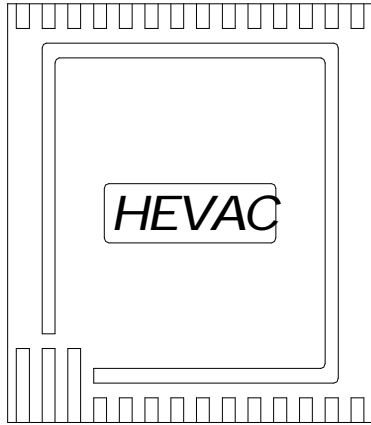
To quickly confirm that a controller is wired to the correct sensor and to TEST for Heating & Cooling Changeover the following procedure can be carried out.

- STEP 1: Dial setpoint up or down until you do not have a Heating or Cooling call. (ie Deadband Position)
- STEP 2: Open circuit the sensor wires at the Sensor. The controller should go into full COOLING Mode.
- STEP 3: Short circuit the sensor wires at the Sensor. The controller should go into full HEATING Mode.

# SRT-H

Wall Mount Room Temperature Sensor (Non-Adjustable)

HEVAC CONTROLS



The **SRT-H** is a wall mount room temperature sensor. It is suitable for use with the **HTC 2 analogue series** temperature controller.

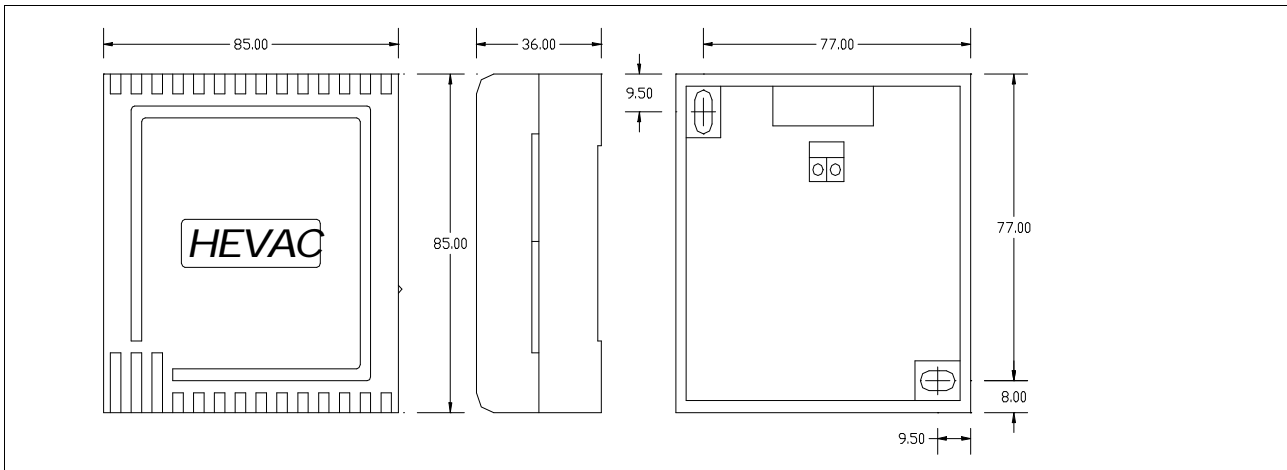
Constructed from high impact ABS plastic, the housing is specifically designed with sensor sensitivity in mind making the **SRT-H** very responsive even in low airflow situations.

Cable entry is from the rear with side knockouts for cable duct on three sides, allowing for easy electrical installation.

## Technical Specifications

Control range	16 to 28 Degrees Centigrade
Time constant	3 Minutes
Thermistor characteristics	PTC 2000 ohms at 25 Degrees Centigrade
Wiring Considerations	Screened cable is recommended, earthed at the controller end only
Housing Colour	Cream
Enclosure	IP 31
Measuring Accuracy	+/- One Degrees Centigrade

## Dimensions



## Thermistor Resistance Characteristics

Temp	Ohms	Temp	Ohms	Temp	Ohms	Temp	Ohms	Temp	Ohms	Temp	Ohms
10.00	1776	14.00	1834	18.00	1894	21.00	1939	23.00	1969	26.00	2015
11.00	1790	15.00	1849	19.00	1909	21.50	1946	23.50	1977	27.00	2031
12.00	1805	16.00	1864	20.00	1924	22.00	1954	24.00	1985	28.00	2047
13.00	1820	17.00	1879	20.50	1931	22.50	1962	25.00	2000	29.00	2062

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