

5-Channel Thermostat Board with Display Control Module



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Product Number	Description
D1000991	5 Channel Thermostat Board with Display control Module (D1000982+D1000983)
D1000982	5 Channel Thermostat Board
D1000983	Display Control Module

Acknowledgments

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What is in this guide

This user guide gives you step-by-step instructions on how to install, configure and connect the 5-Channel Thermostat Module, and how to use and maintain the system.

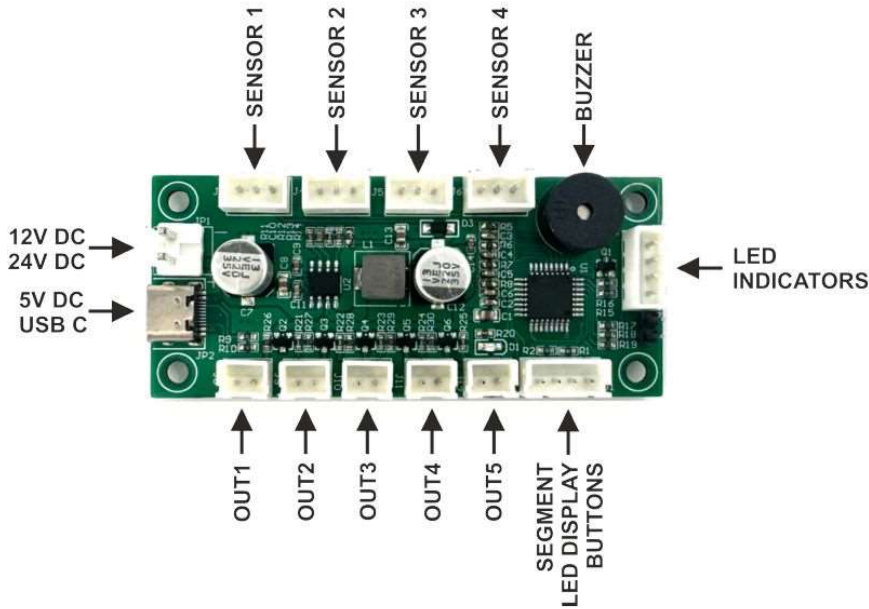
Who should use this guide

This user guide assumes that you have a working knowledge environment into which you are installing and using the 5-Channel Thermostat Module. If you do not have these skills or are not confident with the instructions in this guide, request assistance to proceed with the installation and programming.

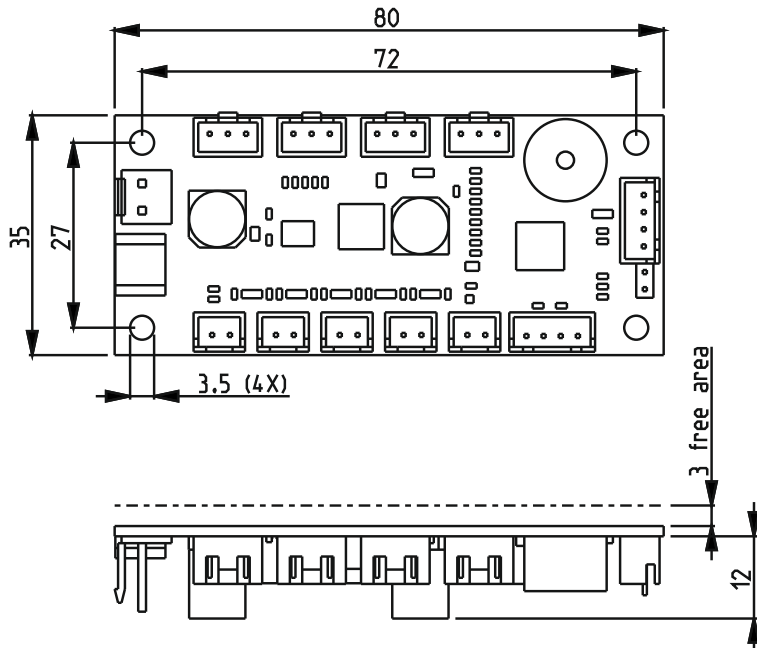
2. 5-Channel Thermostat Board

The Davantronic 5-Channel Output Temperature Sensor Board is intended to turn 4 outputs ON or OFF based on their corresponding NTC temperature sensor input. The module has 1 extra output (output 5) which is intended to turn ON or OFF a 220V AC power output circuit. The board runs on 5 VDC via a USB-C connector or on 12VDC to 24VDC via a power input connector. A separate LED display module with buttons is connected to set up the device and read out the temperatures for each sensor. A buzzer will beep when setting up or when the safety temperature has been reached. An extra connector will connect LED indicators.

2.1. Connections and features

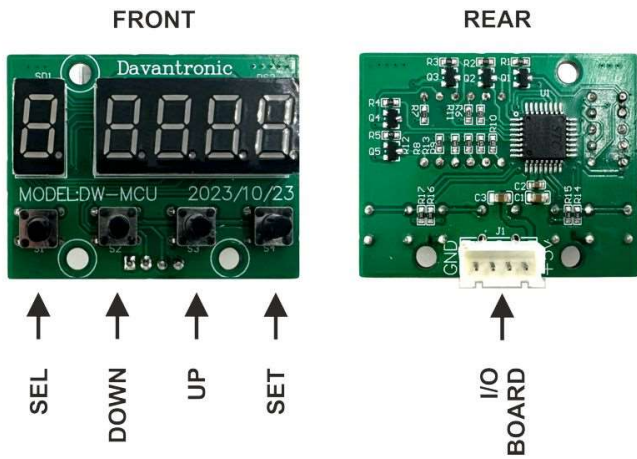


2.2. Dimensions

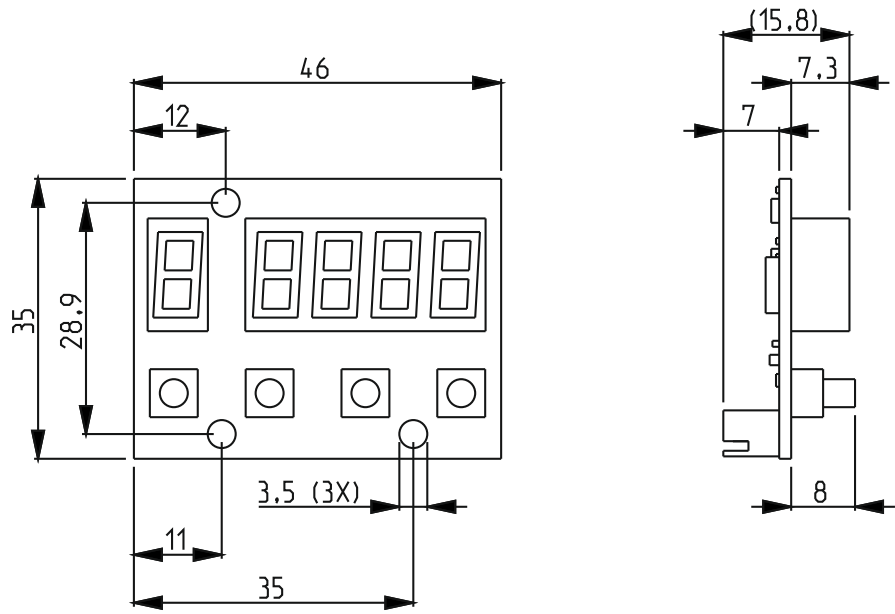


3. Display Control Module

3.1. Connections and features

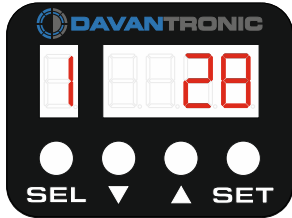






3.2. Dimensions



4. Programming the 5-Channel Thermostat Board

4.1. Buttons



Button 1	SELECT	
Button 2	DOWN	
Button 3	UP	
Button 4	SET (CONFIRM/SAVE)	

4.2. Selection mode (press SEL)

1 = Internal Sensor

2, 3, 4 = External sensors (only available with Version V1 and V3)

S = Safety Temperature: This is the maximum temperature set for any sensor (only available with Version V2 and V3)


4.3. Output Channels

1 = output 1: Controls the internal blowers/fans


2, 3, 4 = Controls the Sensor Controlled Power Outputs at the rear of the device 'only available with Version V1 and V3)


S = output 5: This output generally controls the relay in the 220V AC output circuit. This is the output controlled by safety Temperature Option. When the safety temperature has been reached by any sensor, the relay will be turned off.

4.4. Display

H = Highest Temperature 

L = Lowest Temperature 

COOL = Configure output for Cooling 

HEAT = Configure output for heating 

4.5. Programming

Turn On the device. Display shows the temperatures of the internal sensor 1 and external sensors 2,3 and 4 in a cycle. Use

● ●
▼ ▲ to select a sensor of which to show the temperature.



A. SETUP THE SENSORS 1,2,3 and 4 WITH CORRESPONDING OUTPUT

1. Push the select button: **SEL**
2. Select Sensor with the Arrow UP or DOWN buttons -> (1, 2, 3, 4): ▼ ▲ Confirm selection with: **SET** (selected sensor No. = blinking)
3. Select whether you want to configure an output for Cooling or Heating. Use UP and DOWN buttons ▼ ▲



Confirm selection with: **SET**

SET UP SENSOR/OUTPUT FOR COOLING	SET UP SENSOR/OUTPUT FOR HEATING
<p>4. Set High temperature with arrows UP or DOWN eg. 70°. ▼ ▲ This is the temperature at which the fans will turn on.</p> <p>Push SET to confirm the High temperature of selected sensor.</p> <p>5. Set Low temperature with arrow UP or DOWN eg 50° ▼ ▲ . This is the temperature at which the fans will turn off.</p> <p>Push SET to confirm the Low temperature</p>	<p>6. Set Low temperature with arrow UP or DOWN eg 50° ▼ ▲ . This is the temperature at which the Heater will turn on.</p> <p>Push SET to confirm the Low temperature of selected sensor.</p> <p>7. Set High temperature with arrows UP or DOWN eg. 70°. ▼ ▲ This is the temperature at which the Heater will turn off.</p> <p>Push SET to confirm the High temperature</p>
<p>Outputs 1, 2, 3 and 4 will turn on when the H temperature is reached and will turn off when the L temperature has been reached</p>	<p>Outputs 1, 2, 3 and 4 will turn on when the L temperature is reached and will turn off when the H temperature has been reached</p>

Repeat for Sensors 2, 3, 4

B. SETUP SAFETY TEMPERATURE (output 5)

1. Push the select button: **SEL**

2. Select S with the Arrow UP or DOWN buttons -> (1, 2, 3, 4, **S**):

3. Confirm selection with: **SET** (selected sensor S = blinking)



4. Select whether you want to setup Safety Temperature for Cooling (COOL) or Heating (HEAT). Use Arrow UP or DOWN

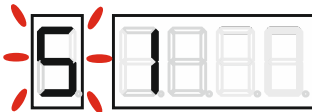
buttons ▼ ▲



Confirm selection with: **SET**

SET UP Safety Temperature for COOLING

1. Only Sensors designated previously for Cooling will be available to configure the safety output.



2. Select the sensor which you want to trigger the safety

output 5 to shut down using ▼ ▲

Confirm with **SET**

3. Set High temperature with arrows UP or DOWN eg.

80°. ▼ ▲ This is the temperature at which the output 5 will turn off.



Push **SET** to confirm the safety temperature for the selected sensor.

SET UP Safety Temperature for HEATING

1. Only sensors designated previously for Heating will be available to configure the safety output.



2. Select the sensor which you want to trigger the safety

output 5 to shut down using ▼ ▲

Confirm with **SET**

3. Set Low temperature with arrow UP or DOWN eg 50°

▼ ▲ . This is the temperature at which the output 5 will shut down.



Push **SET** to confirm the safety temperature for the selected sensor.

- Output 5 will be turned off as soon as one of the designated sensors reaches the safety temperature.
- RED LED will blink when Output 5 turns OFF.
- Buzzer will sound intermittent when Output 5 turns OFF.

5. LED Indicators

GREEN LED = Device works normal. Temperature below safety temperature

RED LED Blinking = Safety temperature reached; Power output turned OFF

6. Buzzer

Buzzer beeping: Safety Temperature has been reached; Power output turned OFF.

7. Packing

Included in the packing are:

- 5-Channel Thermostat Board
- Display Control Module
- Interconnection Cable