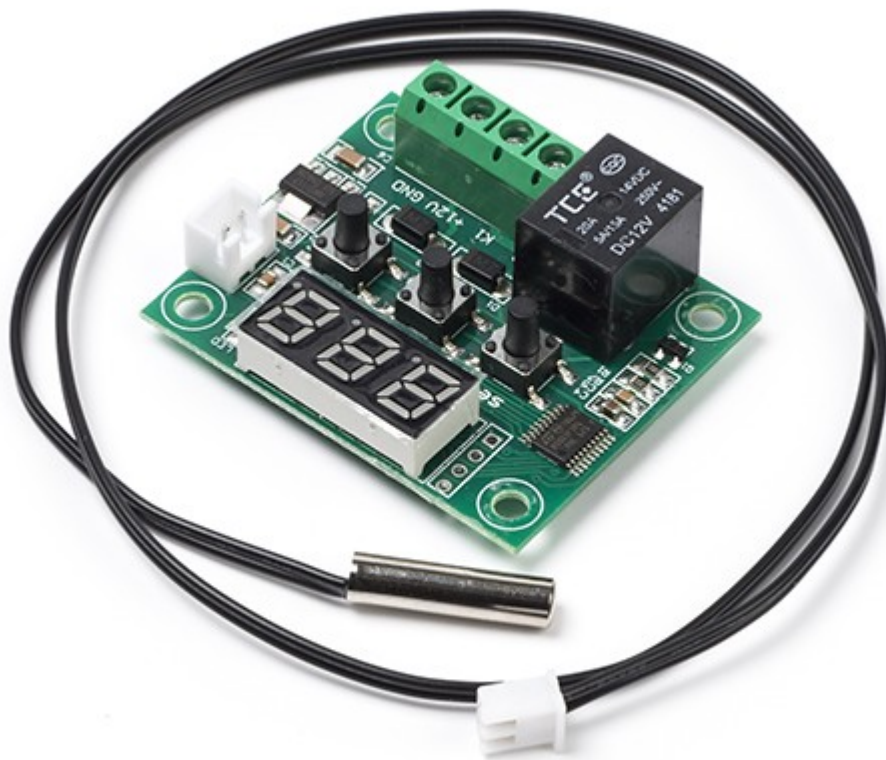


W1209

Thermostat with sensor



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Document version 1.1



Small pcb to stand-alone control your heated bed up to 10A. Comes with a 10K thermistor. Three tactile button allow you to control the board.

Specifications

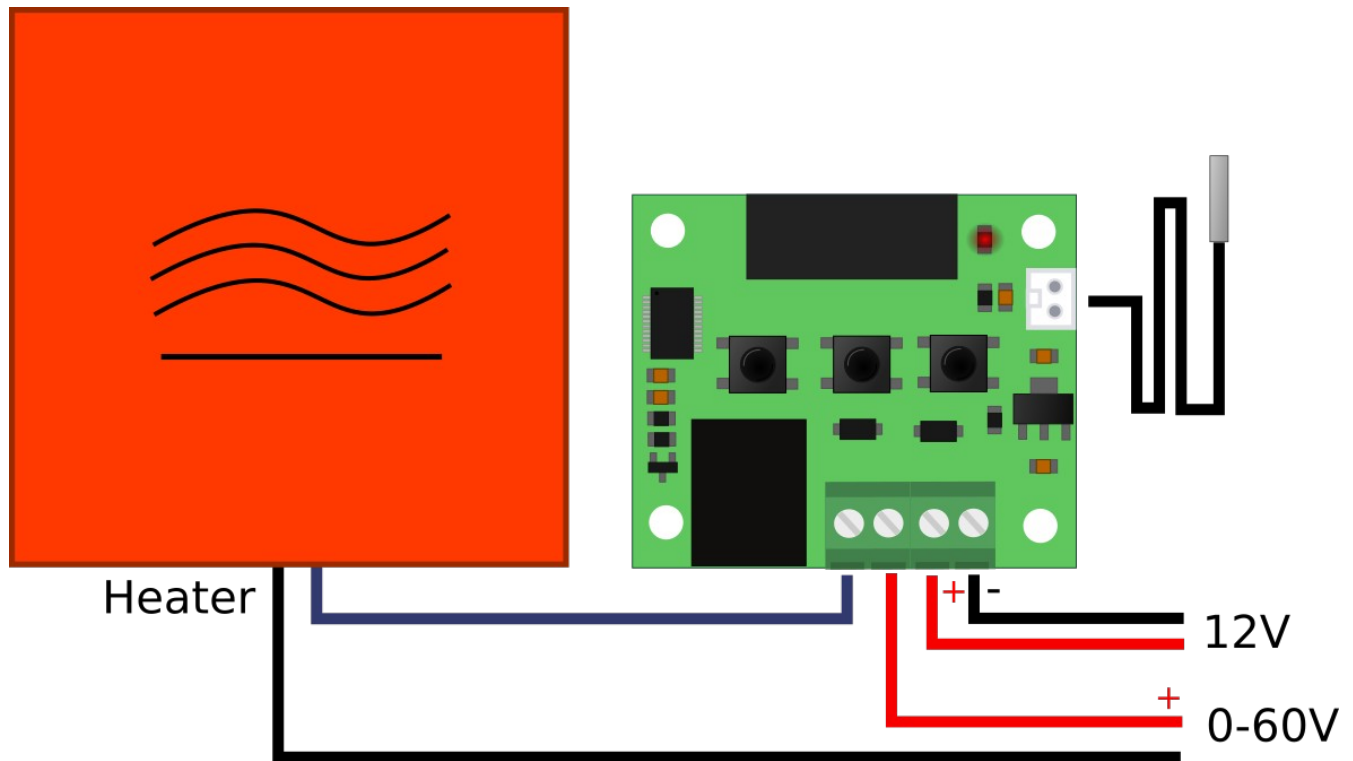
| | |
|-------------------------------------------------|-------------|
| Temperature Control Range | -50 - 110°C |
| Resolution (-9.9 - 99.9 °C) | 0.1 °C |
| Resolution (< -9.9 or > 99.9 °C) | 1.0 °C |
| Controllable accuracy | 0.1 °C |
| Refresh | 0.5 seconds |
| Thermistor | 10K |
| | |
| Input voltage | 12V |
| Max current | 10A |
| Max power | 120W |

DOCUMENT HISTORY

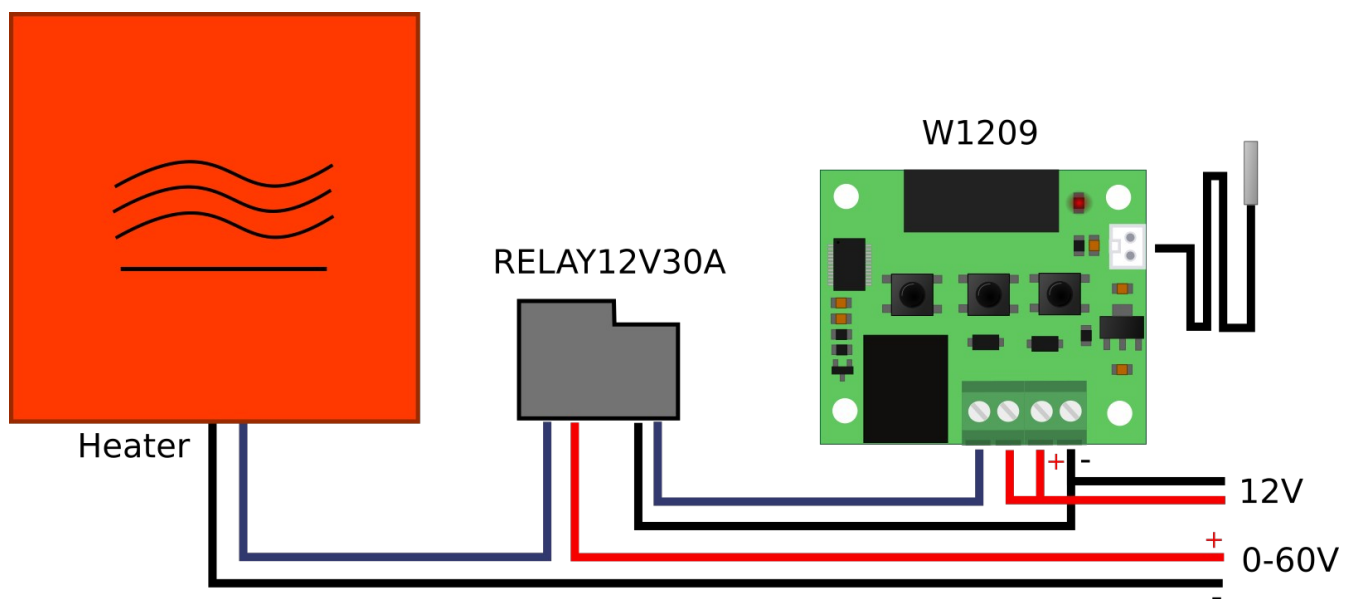
| | |
|--------------------|----------------------------------------|
| Version 1.0 | Creation |
| Version 1.1 | Corrected drawing, added extra relais. |
| | |
| | |

INSTALLATION

Review the following image for the wiring schema. Be sure to get the polarization of the 12V input correct. The wiring to the heater doesn't matter. You can use a different voltage for the heater section, as long as the heater doesn't draw more than 10A.



Alternately you can use an extra relay to switch higher currents.



The board comes with three tactile buttons to setup the temperature: Set, + and -. Long press set to enter the menu, the display will show P0. Use + and - to cycle to the various menus (see table below). Press set to enter a menu option. Use + and - to change the value for that option. Press set again to save the setting and return to the menu.

Hold both + and - a while to reset to factory settings. After 5 seconds the pcb will return to thermostat function.

| Code | Description | Range | Default value |
|------|-----------------------------------------------------------------------------------------------------------------------------|----------|---------------|
| P0 | H(eat) or C(ool) Selectes if we control a heater or cooler. | H or C | C |
| P1 | Hysteresis °C Amount of temperature change before relay is enabled | 0.1 - 15 | 2 |
| P2 | Upper Limit °C Max temperature allowed to set | 110 | 110 |
| P3 | Lower Limit °C Min temperature allowed to set | -50 | -50 |
| P4 | Correction °C Set the offset to compensate for temperature error | -7 - 7 | |
| P5 | Delay Start Time (minutes) Number of minutes before relay is activated after target temperature has been reached. | 0 - 10 | 0 |
| P6 | High Temperature Alarm °C Relay will be disabled after temperature has reached this number | 0 - 110 | Off |

Setting the temperature

Shortly press Set, the display will flash. Use + and - to set the target temperature. The temperature will be saved after two seconds.