

P44-HTC1
Temperature Controller (PT 100)
Single Setpoint

-50°C to 440°C
Operating instructions
and
Guarantee Certificate

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Description:

This device interfaces directly with a 3-wire PT100. (0.1 °C resolution). It offers 1 set point with hysteresis setting. The relay may be configured for heating or cooling. The maximum and minimum allowable temperatures may also be pre-set. The menu can be reduced and the parameters locked with an access code to protect programmed values. (see menu configuration).

Operation:

The relay changes state when the probe temperature reaches the pre-set temperature. Once the temperature has changed (in the opposite direction) by the pre-set hysteresis amount, the relay resumes its original state.

Menu functionality:

Press the menu “ \cup ” button repeatedly until the desired setting is reached. The “ \blacktriangle ” and “ \blacktriangledown ” buttons are used to change the value. “ \cup ” will display the next menu item. To exit the menu hold “ \cup ” button for 3 seconds.

Adjustable parameters:

- Pre-set temperature “°C” (default value: 25.0)
When the probe temperature reaches this value, the relay changes state.
- Hysteresis “HYSt” (default value: 1.0, range 1-100.0 °C)
Once the pre-set temperature is reached, it must change (in the opposite direction) by this amount before the relay resumes it's original state.
- Offset “OFSt” (default value: 0, range -10.0 to +10.0 °C)
This value is added (or subtracted if negative) to the current temperature.
- Maximum “Hi” user setting (default value: 440.0)
This is the maximum value obtainable via setting number 1 (“°C.1”).
- Minimum “LO” user setting (default value: -50.0)
This is the minimum value obtainable via setting number 1 (“°C.1”).
- Element type “TYPE” (default: Heating)
The device may be configured for :
 - Heating “HEAT”
Both relays are energised when the temperature is BELOW their individual pre-set temperatures.
 - Cooling “COOL”
Both relays are energised when the temperature is ABOVE their individual pre-set temperatures
- Reset “rEST”
By selecting this setting, the device is reset to the factory defaults.

Menu options:

Exit the menu before making the following adjustments.

1. Lock / unlock parameters: (default: unlocked)

Press “BACK” (\blacktriangledown), then “ENTER” (\cup) and hold the 2 buttons until the desired option is displayed. The display cycles between “Loc” (no changes allowed) & “u.Loc” (parameters may be adjusted)

2. Full / reduced menu (default: Full)

Press “SELECT” (\blacktriangle), then “ENTER” (\cup) and hold the 2 buttons until the desired option is displayed. The display cycles between “rEdu” (limited menu) & “Full” (all parameters are accessible)

3. Access Code: (default: no code)

Once options 1 & 2 are set as required, Press “BACK” (\blacktriangledown) and “SELECT” (\blacktriangle) simultaneously until “CODE” is displayed. Now use the “+” (\blacktriangle) & “-” (\blacktriangledown) to enter a code. (1-9999) Once a code is entered, access to options 1 & 2 is not permitted. To clear the code, re-enter the same code again. If the code is forgotten. Press and hold “+” (\blacktriangle) & “-” (\blacktriangledown) until “CODE” is displayed while re-applying power to the device. To exit without setting a code, press “Enter” while “CodE” or “diSA” is displayed.

Programming example: Set setpoint 1 to 30.0°C:

Press “↶” to display “°C .1”

Use “▲” and “▼” to change the value to “30.0”.

Press “↶” for 3 seconds to exit the menu.

Notes:

- If the temperature being read is outside the device’s temperature range, the message “t Lo” or “t Hi” is displayed.
- Make all adjustments and reset device before connecting relay.
- Probe lead resistance could affect the accuracy as much as 0.3 °C / ohm
- If the probe is faulty, or not connected, “P.Err” is displayed.
- If the input voltage is below the minimum operating voltage, the relay may not energize. Even though the device’s display is on.

Specifications:

Temperature range: -50.0 °C to + 440.0 °C
Resolution: 0.1°C
Accuracy: ±0.5 °C (@ 25 °C ambient)
Input voltage: ±15% of rated input
Probe: PT100 (38.5 ohm/ 100 °C)

12 Month guarantee:

Our product is guaranteed for a 12 (twelve) month period from date of purchase. This guarantee is valid for defects arising from failure during specified conditions. This guarantee does not cover damage due to abuse, tampering or improper installation. Our company does not accept liability for any consequential damage or loss arising from product malfunction. Should this product prove to be defective, kindly return it for inspection or repair. For further information contact your nearest distributor.

Relay specifications:

Contact rating: 10A250 VAC 2500VA (Resistive)
Mechanical life: 30 million operations
Electrical life: 250 000 operations (at maximum load)

