



D4-TC1 / P49-TC1
Temperature controller 1 setpoint

(ver 8.7)
Operating instructions
and
Guarantee Certificate

www.icon-electronics.com

Description:

This device offers 0.1 degree resolution, adjustable offset, hysteresis and upper and lower limits for the pre-set temperature setting. It can be configured for heating or cooling applications. The settings may be locked and code protected to avoid changes from being made by unauthorized personnel.

Operation:

Heating mode:

Temperature must rise to set point value before relay de-energizes, then it must drop by the hysteresis amount before being re-energized.

Cooling mode:

Temperature must drop to set point value before relay de-energizes, then it must rise by the hysteresis amount before being re-energized.

Menu operation:

Press the "MENU" button repeatedly until the desired setting is reached, press "SELECT" to display the current value.

Use "+" and "-" buttons to change the value. "ENTER" will return the device to the menu. The "BACK" button will exit the menu.

Adjustable parameters:

1. Pre-set temperature "°C" (default value: 25.0)

When the probe temperature reaches this value, the relay is de-energized.

2. Hysteresis "HySt" (default value: 1.0, range 0-100.0 °C)

Once the pre-set temperature has been reached (and the relay has de-energized), it must change (in the opposite direction) by this amount before the relay is re-energized.

3-4. Maximum "Hi" and minimum "LO" user setting

(Default value: 45.0, -10.0)

These are the upper and lower limits obtainable via the set point (setting number 1 "°C").

5. Relay function "Func" (default: Heating)

Type of elements connected to the relays:

"HEAT" both relays are used with heating elements.

"COOL" both relays are used with cooling elements.

6. Offset "OFSt" (default value: 0.0, range -10.0 to +10.0 °C)

This value is added (or subtracted if negative) to the current temperature.

7. Reset "RESt"

By selecting this setting, the device is reset to the factory defaults

Menu options:

Exit the menu before making the following adjustments.

Lock / unlock parameters: (default: unlocked)

Press "BACK", then "ENTER" 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)

Full / reduced menu (default: Full)

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

Access Code: (default: no code)

Once the above options have been set as required, Press "BACK" and "SELECT" simultaneously until "CODE" is displayed. Now use the "+" & "-" to enter a code.

Once a code is entered, access to the options above is not permitted. To clear the code, re-enter the same code again. If the code is forgotten. Press and hold "+" & "-" until "CODE" is displayed while re-applying power to the device.

Notes:

1. The display will show "Err" if the sensor is not connected correctly, or is faulty.
2. To avoid damage to the sensor, ensure that it is connected correctly before applying power.

Menu operation example: Set the temperature to 30.0 °C:

Press "MENU" to display "°C". Press "SELECT" to view the current value. Use the "+" and "-" buttons to change the value to 30.0. Press "ENTER" to return to the menu. Press "BACK" to exit the menu.

Specifications:

Temperature range	- 25.0 °C to + 105.0 °C
Accuracy:	±1.2 °C
Input voltage:	±15% of rated input
Led indication:	Relay status
Probe:	3-wire digital
Probe length:	2m, extendable to 200m (With external 220uF 16V capacitor)

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 for inspection or repair.

For further information, please visit us at:

www.icon-electronics.com

Relay specifications:

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

