

DIN-1TSTAT8

8-Zone Radiant Heat Thermostat, DIN Rail Mount Installation Guide



Description

Control up to eight radiant heating zones using one DIN-TSTAT8 thermostat. The thermostat mounts remotely allowing low-profile remote temperature sensors to be installed in each zone. Easily adjust the temperature setting in each heat zone with a Crestron® touchscreen, handheld remote, or mobile app.

The thermostat controls up to eight SPDT heat zone valves and one SPDT main control valve. Use normally closed (NC) or normally open (NO) control valves that are rated at 1/2 HP at 240 VAC, 50/60 Hz.

Failsafe mode maintains the temperature in each zone to provide comfort and to prevent frozen pipes if the user setpoint is temporarily lost.

Additional Resources

Visit the product page on the Crestron website (www.crestron.com) for additional information and the latest firmware updates. Click the QR code or use a QR reader application on your mobile device to scan the QR image.



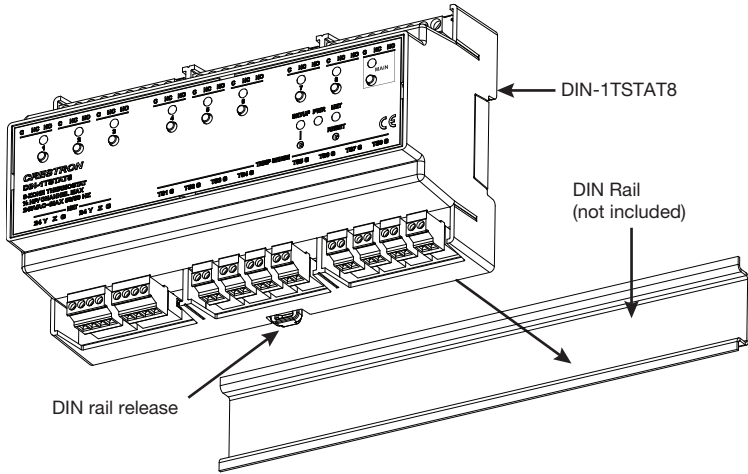
Install the DIN-1TSTAT8

NOTE: Observe the following points when installing the DIN-1TSTAT8.

- Use the DIN-1TSTAT8 in an electrical panel with DIN rail mounting provisions.
- Mount the DIN-1TSTAT8 in a well-ventilated area.
- Do not block the venting holes.
- Certain third-party DIN cabinets provide space for an informational label between each DIN rail row. Crestron's Engraver software (version 4.0 or later) can generate appropriate labels for all Crestron DIN rail products.

Mount the DIN-1TSTAT8 to the DIN rail (not included):

1. Hang the DIN-1TSTAT8 on the top of the DIN rail.
2. Press the bottom toward the DIN rail and snap it into place.



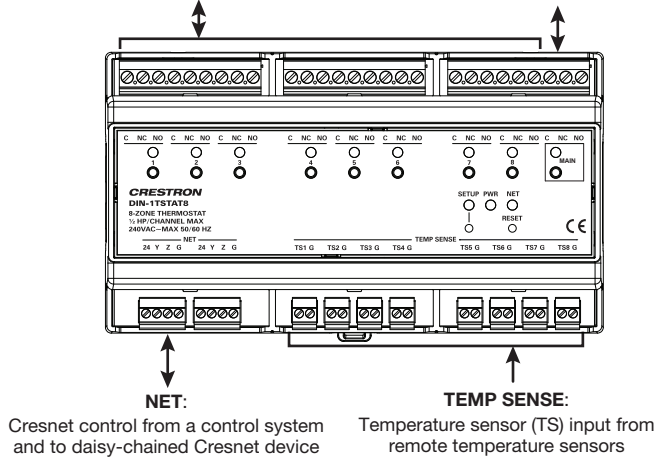
Remove the DIN-1TSTAT8 from the DIN rail:

1. Turn off power to the thermostat and the heating system.
2. Remove all connections from the DIN-1TSTAT8.
3. Use a small, flat-head screwdriver to pull the DIN rail release tab down.
4. Tilt the bottom of the DIN-1TSTAT8 away from the bottom of the DIN rail and then remove the thermostat.

Wire the DIN-1TSTAT8

Make the following connections to the thermostat.

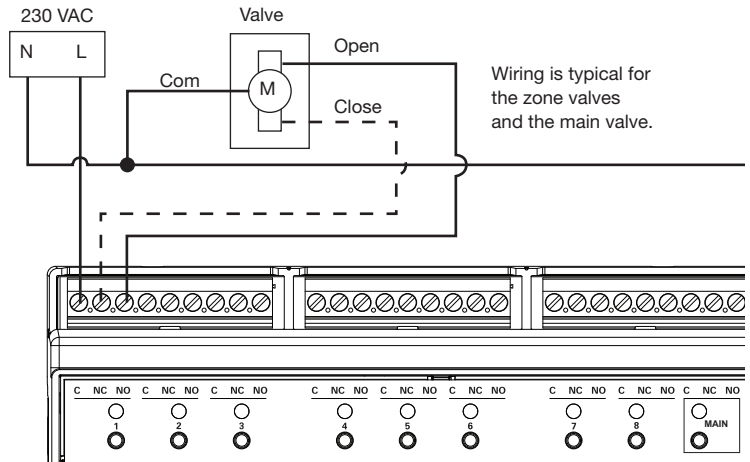
- 1-8:** C (common), NC (normally closed), and NO (normally open) to relays 1-8
- MAIN:** C (common), NC (normally closed), and NO (normally open) to the main valve



Zone Valve and Main Valve Connections (1-8, MAIN)

1. Wire the eight zone valves to the 1-8 terminals on the thermostat. Connect one zone valve per heat zone. Each zone valve must have a corresponding temperature sensor connected.
2. Wire the main control valve to the MAIN terminal on the thermostat. Do not connect a zone valve to the MAIN port.
 - For 2-wire, normally open valves, connect the NO terminal on the thermostat to the OPEN terminal on the valve.
 - For 3-wire valves, connect the NO terminal on the thermostat to the OPEN terminal on the valve and then connect the NC terminal on the thermostat to the CLOSE terminal on the valve.

For zone valve specifications and wiring, refer to the documentation provided by the valve manufacturer.



Temperature Sensor Connections (TEMP SENSE)

Wire the eight temperature sensors to the TEMP SENSE terminals. Connecting a temperature sensor input enables the use of the corresponding zone valve. Connect one temperature sensor per heat zone. Crestron recommends using CAT3 (up to 76 meters (250 feet)) or CAT5 up to 152 meters (500 feet) network cable. If other wire is used, the total capacitance must be less than 7,000 pF (up to 152 meters (500 feet)).

NOTE: When wiring the temperature sensors:

- Use a separate run of wire for each sensor. If using multi-conductor cable, use only one pair per cable.
- Do not run temperature sensor lines parallel to any other wiring. Cross cables at right angles.
- In situations where ordinary two-conductor thermostat wire (18 to 20 gauge) has been installed, it may be used for runs up to 30 meters (100 feet). This is not a preferred method of installation.

Cresnet Connections (NET)

Wire the Crestron control system, and other daisy-chained Cresnet devices, to the NET terminals on the thermostat.

Operation

Bootup

The DIN-1TSTAT8 turns off all heat zones before starting up.

Main Valve Delay

When a heat call is made, a delay from 0 to 5 minutes can be set. The default delay is 5 minutes. For information regarding the main valve delay, refer to the documentation provided by the valve manufacturer.

1-8 Buttons and LEDs

Press the 1-8 buttons to toggle the heat zone on and off.

The 1-8 LED:

- Flashes during a heat call.
- Lights when the heat is enabled, but there is no call for heat.
- Extinguishes when heat is disabled.

MAIN Button and LED

Press and hold the MAIN button for 10 seconds to toggle the main valve on and off.

The MAIN LED:

- Flashes during a heat call for one or more zone valves.
- Lights when heat is on for one or more zone valves.
- Extinguishes when all zone valves are off.

Temperature Sensors

The temperature sensors operate as follows:

- The temperature sensor reads the temperature of the room once per second.
- If a temperature sensor is not connected, the corresponding zone valve turns off and stays off until a temperature sensor is connected.
- If a temperature sensor does not send a valid value, or does not functioning for 10 minutes, the corresponding zone valve turns off and stays off.

Failsafe Mode

Failsafe mode ensures that an appropriate heat level is maintained in each zone if the stored setpoint becomes corrupt or if no control system is connected. When the thermostat enters Failsafe mode, the temperature setpoint for all zones is set to the failsafe setpoint.

Establish the failsafe setpoint in the control system program. The failsafe setpoint can range from 5 °C (41 °F) to 20 °C (68 °F); the default failsafe setpoint is 20 °C (68 °F). Temperate zones can use a lower failsafe setpoint and cold climates may use a higher value.

The thermostat exits Failsafe mode after it reestablishes communication with the control system or if stored setpoint is restored. The thermostat resumes normal operation according to its last known state.

Verify System Operation

After the thermostat is installed and programmed, enter Test mode to verify that each heating zone is operating correctly. During Test mode, the thermostat performs a heat call on that zone.

To test the zone valve:

NOTE: To exit Test mode, press and hold the desired zone button for 10 seconds.

1. Press and hold the 1-8 button for 10 seconds to enter Test mode on the associated zone.
2. Verify that the zone valve operates as expected. The DIN-1TSTAT8 performs a 5-minute heat call on that zone. If the valve is programmed to have a time delay, the delay is initiated and added to the test call for heat. The zone LED flashes for the duration of Test mode. The zone valve, main valve, and DIN-1TSTAT8 return to their previous states when Test mode has been completed.

NOTE:

- The time delay is set per the manufacturers specifications.
- The run-time for Test mode is determined by the time of the delay plus the 5-minute heat call. Test mode can take up to 10 minutes to complete.

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
The thermostat is not receiving a signal.	There is an improper connection between the sensor and the thermostat.	Check the connection between the sensor and thermostat.
	An incomplete (open) circuit exists in wiring.	Check the connection between the sensor and thermostat.

As of the date of manufacture, the product has been tested and found to comply with specifications for CE marking.



This product is Listed to applicable UL® Standards and requirements tested by Underwriters Laboratories Inc.

Ce produit est homologué selon les normes et les exigences UL applicables par Underwriters Laboratories Inc.



Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:(1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada (IC) Compliance Statement

CAN ICES-3 (B)/NMB-3(B)

Pollution Degree: 2

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Specifications subject to change without notice.