# SC-T-S1 and SC-T-S2
# Indoor Remote Sensor
## (USE WITH SC-T32-P, SC-T32-TS, SC-Z20-NS AND SC-Z20-T THERMOSTATS)

## APPLICATION

The SC-T-S1 Indoor Temperature Sensor is used with the SC-T32-P, SC-T32-TS, SC-Z20-NS and SC-Z20-T thermostats. The S1 model contains a single thermistor and the S2 model contains two (2) thermistors in series. A combination of both sensors can be used for indoor temperature averaging to simplify wiring.

## SPECIFICATIONS

**Operating Ambient Temperature Range:**
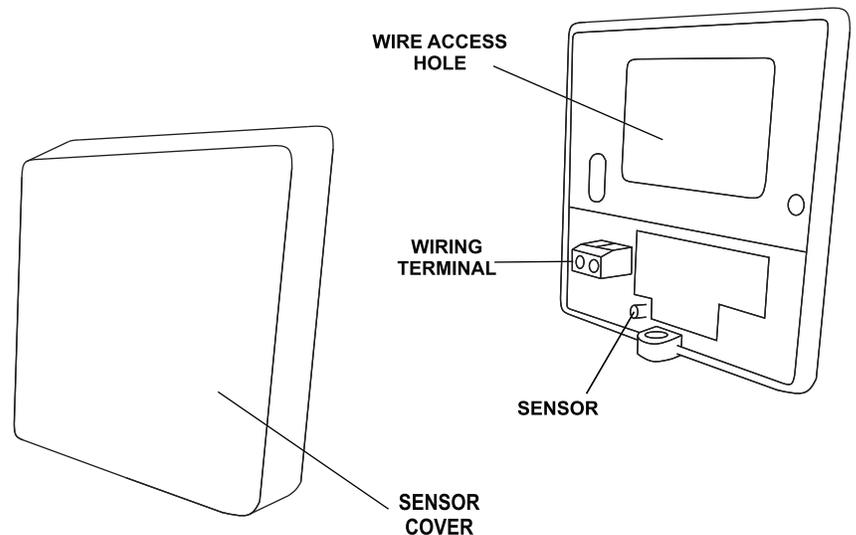-40 to 140° F

**Indoor Temperature Display Range:**
SC-T32-P & SC-T32-TS  (41 to 122° F)
SC-Z20-NS    (42 to 122° F)
SC-Z20-T (42 to 122° F)

**Operating Relative Humidity:**
5% to 95% RH (non-condensing)

**Sensor Type:**
NTC Type 2, 10KΩ @ 77° F

**Sensor Accuracy:**
+/- 3% @ 77° F

**Enclosure Dimensions:**
3.125" x 3.125" x 0.875" (H x W x D)



## *IMPORTANT*

1. Keep wiring at least one foot away from large inductive loads such as motors, line starters, lighting ballasts and large power distribution panels.
2. Use shielded cable to reduce interference when possible.
3. Use a separate 18-2 cable when wiring sensor to the thermostat.
4. Do not route sensor cable with line voltage power wires or near control contactors, light dimming circuits, electric motors or welding equipment.
5. Make sure that all wiring connections are secure.
6. Wiring must be in compliance with all applicable codes.

## LOCATION AND INSTALLATION

1. Mount the sensor(s) in a location that represents the ambient space temperature being controlled.
2. Do not install the sensor(s) in an area where drafts are present, near the floor, behind doors or on an external wall.
3. Avoid locating the sensor(s) in areas where the air movement is limited, affected by direct sunlight or other areas not typical of the temperature in the space.
4. Remove the cover from the subbase.
5. Pull the sensor cable through the wire access hole of the subbase and mark the mounting screw locations.
6. Use the mounting hardware supplied with the sensor.
7. Land the sensor cable to the screw terminals located on the sensor printed circuit board.
8. Seal the wire access hole to prevent any drafts that might affect the sensor.
9. Replace the sensor cover.
10. Refer to SC-T32-P, SC-T32-TS, SC-Z20-NS or SC-Z20-T thermostat installation manual for indoor sensor wiring and installer setup options.
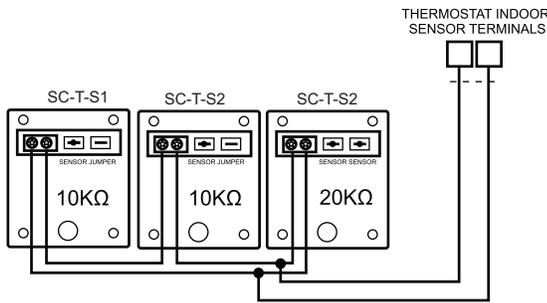
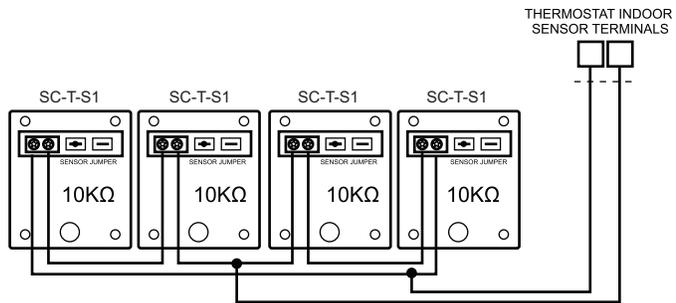# MULTIPLE SENSOR CONFIGURATIONS
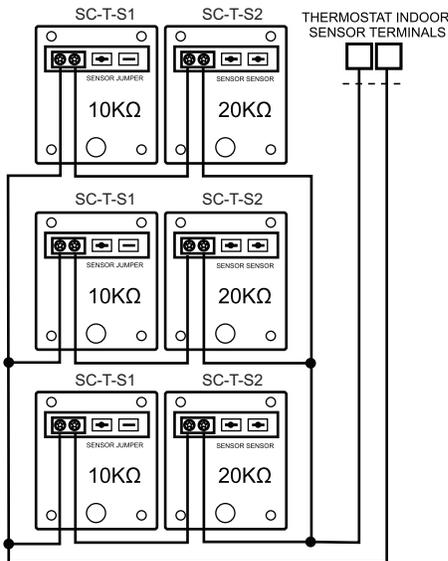# FOR TEMPERATURE AVERAGING
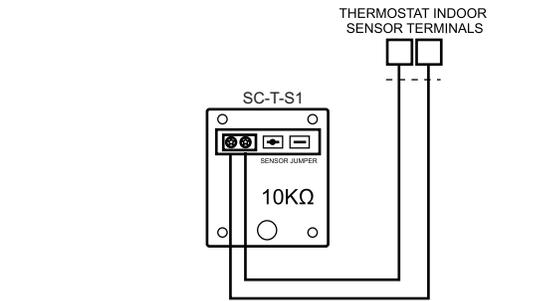


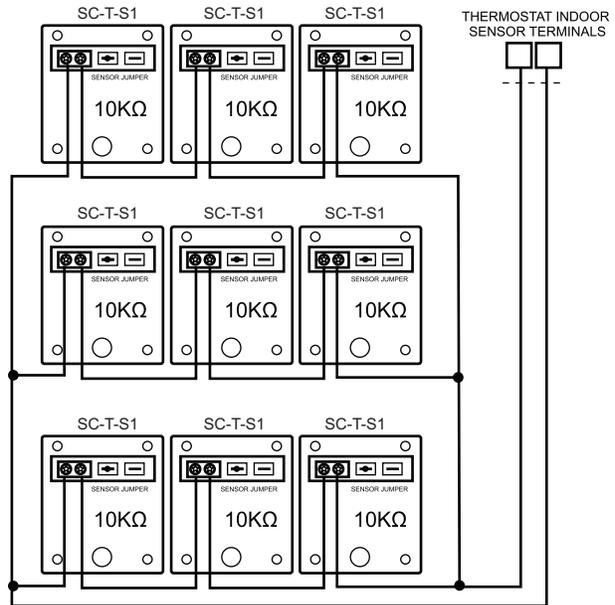**1 REMOTE SENSOR**
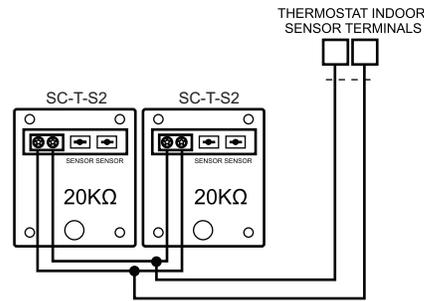
**2 REMOTE SENSORS**

**3 REMOTE SENSORS**

**4 REMOTE SENSORS**

**6 REMOTE SENSORS**

**9 REMOTE SENSORS**

Multiple remote sensors can be connected to the SC-T32-P, SC-T32-TS, SC-Z20-NS or SC-Z20-T remote sensor terminals for temperature averaging. The S1 sensor contains one (1) 10KΩ sensor and the S2 sensor contains two (2) 10KΩ sensors wired in series. In the above combination, the sensors are wired in series/parallel and their total value equals 10KΩ. The internal sensor on the SC-T32-P can be used as one of the temperature averaging points but is not part of the equation; however, it will always represent 50% of the total averaging value if used. The internal sensor on the SC-T32-TS, SC-Z20-NS and SC-Z20-T is automatically disabled when an indoor remote sensor is connected and is not used for temperature averaging.

## SPECIFIED CONTROLS

SC-06-1192-080525