

## C2N-RTHS

### Temperature and Humidity Sensor Installation Guide



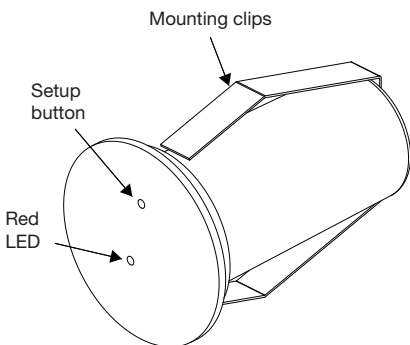
#### Description

The Crestron® C2N-RTHS is a wall-mounted temperature and relative humidity sensor that communicates directly with any Crestron control system via the Cresnet® control network. One-piece mounting makes the C2N-RTHS simple to install. The 1-1/2 in (38.1 mm) diameter face protrudes just 1/8 in (3.2 mm) from the wall surface and is easily painted or wallpapered to blend into the wall surface.

#### C2N-RTHS Specifications

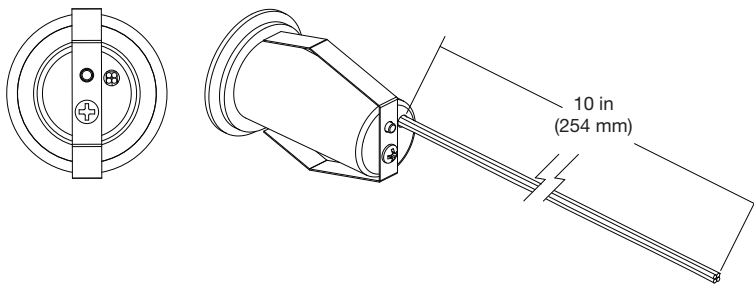
SPECIFICATION	DETAILS
Measuring Range	
Temperature	-40° to 176 °F (-40° to 80 °C)
Humidity	0% to 100% RH
Output Resolution	0.1 °F (0.1 °C); 1% RH
Accuracy	±1.0 °F (0.5 °C); 5% RH
Temperature Accuracy	
Over Full Range	±0.9 °F (0.5 °C)
At Room Temperature	+0.2/-0.7 °F (+0.1/-0.4 °C)
Humidity Accuracy	±5%
Connection	~10 in (~25 cm) 4-wire pigtail; Connects to Cresnet control network
Power Requirements	
Cresnet Power Usage	0.25 W (0.01 Amps @ 24 Vdc)

#### C2N-RTHS Front and Angled View



**NOTE:** The miniature setup button and red LED are used for setting the network ID for the initial configuration or when the device is being added or replaced. They are also used for touch-settable ID (TSID).

#### C2N-RTHS Rear and Angled Views



#### Additional Resources

Visit the product page on the Crestron website ([www.crestron.com](http://www.crestron.com)) for additional information and the latest firmware updates. Use a QR reader application on your mobile device to scan the QR image.



#### Installation

**NOTES:** Ensure the installation location is not close to a heat or humidity source and is away from direct sunlight, skylights, and windows. When mounting the sensor outdoors, do not place in direct sunlight, and do not place where the sensor will be directly exposed to precipitation. Sensors are suitable for mounting in dry or damp locations as defined by the National Electrical Code.

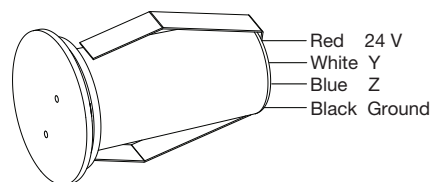
- Install and use this product in accordance with appropriate electrical codes and regulations.
- A licensed electrician should install this product.
- Mount sensors on a vibration-free surface.

**NOTE:** Before using the C2N-RTHS, ensure the device is using the latest firmware. Check for the latest firmware for the C2N-RTHS at [www.crestron.com/firmware](http://www.crestron.com/firmware). Load the firmware onto the device using Crestron Toolbox™ software.

Complete the following procedure to install the C2N-RTHS:

1. Locate an area on the wall that is free of miscellaneous wiring and studs.
2. Make a small hole near the center of the designated mounting site to verify that the location is suitable.
3. Drill or cut a 1 in (26 mm) diameter circular hole in the wall at the desired position.
4. Route the Cresnet wires to the sensor. Use the four wire nuts included to connect the wires (red to red, white to white, blue to blue, and black to black).

#### Cresnet Wiring for the C2N-RTHS



5. Press fit the sensor into the hole; the clips on either side of the sensor hold it in place.

**NOTE:** The face of the sensor may be painted or wallpapered to match the wall. Ensure that paint does not enter (or that wallpaper does not cover) the perimeter gap or the holes for the setup button and LED.

#### Wiring

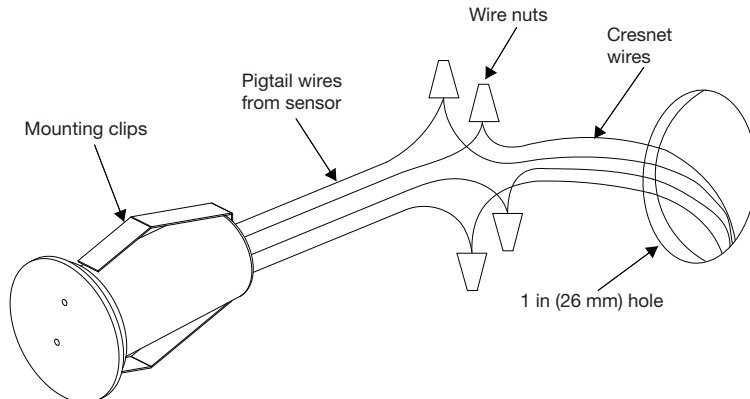
Make the necessary connections as called out in the illustration. Apply power after all connections have been made.

**CAUTION:** Insufficient power can lead to unpredictable results or damage to the equipment. Use the Crestron Power Calculator to help calculate how much power is needed for the system ([www.crestron.com/calculators](http://www.crestron.com/calculators)).

**NOTE:** When wiring the Cresnet network, consider the following:

- Use Crestron Certified Wire.
- Use Crestron power supplies for Crestron equipment.
- Provide sufficient power to the system.

#### Wiring the C2N-RTHS



## Troubleshooting

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

C2N-RTHS Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
There is no temperature or humidity reading.	The wiring is not properly connected.	Check the connection; refer to the "Wiring" section.
	The Cresnet ID is incorrect.	Check the Cresnet ID.
	The programming is incorrect.	Check the SIMPL Windows program.

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



### 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

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada

The product warranty can be found at [www.crestron.com/warranty](http://www.crestron.com/warranty).

The specific patents that cover Crestron products are listed at [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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Specifications subject to change without notice.