

## 1 Application

The RC840 Electric Heating Relay is designed to control a line voltage resistive load from a 24 V control signal.

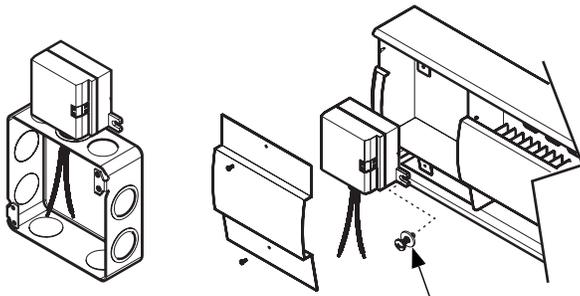
The RC840 operates silently and can be installed in bedrooms, living rooms, or any other occupied area without disturbing occupants. On a call for heat, the relay is immediately activated; there is no delay. This increases temperature control and comfort.

**NOTE:** Not recommended for fast-cycling modulated regulation. For fast-cycling heating equipment, it is recommended to use the RT850 or RT850T (integrated 24 V transformer) Solid State Relay.

## 2 Installation

The RC840 must be installed in an area where the temperature is between -4°F and 140°F (-20°C and 60°C).

The RC840 can be installed on the side of an electrical box or a distribution panel or inside the wiring compartment of an electric baseboard.



For proper installation, use a screw and a washer.

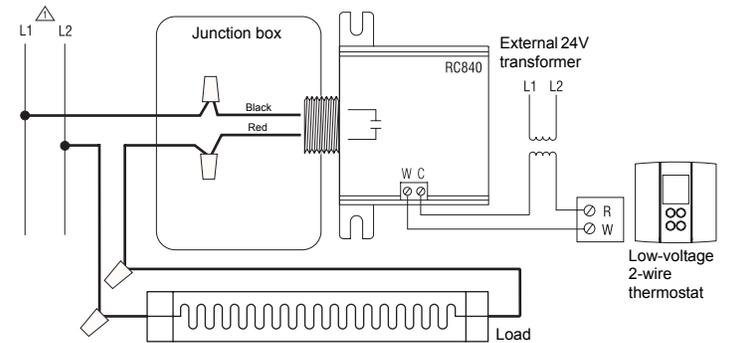
On the side of an electrical box

Inside the wiring compartment of a baseboard

- ▶ All wiring must comply with national and local electrical code regulations.
- ▶ Installation should be carried out by an electrician.
- ▶ Disconnect power supply before installing the relay to prevent electrical shock.

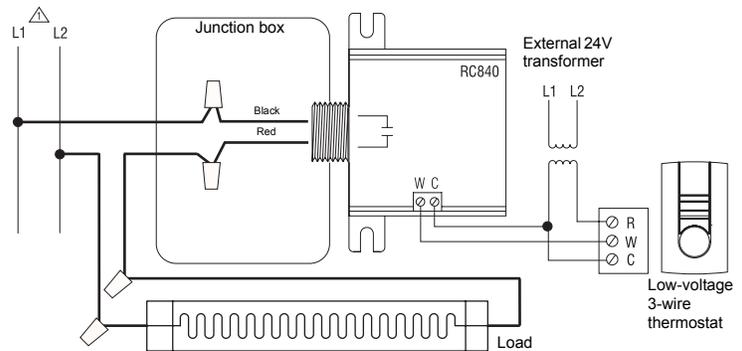
- 1 Secure relay to the mounting surface using the two mounting brackets. Use the supplied lock nut to secure the relay to the junction box.
- 2 Wire the relay and connect according to typical wiring diagrams (refer to figures 1, 2 and 3).
- 3 Once mounting and wiring have been completed, return power to the heating system and test the installation.
- 4 Increase the thermostat temperature to activate the relay. Allow system operation long enough to proof installation. Once installation has been proofed, set temperature to normal setpoint.

## 3 Typical Wiring Diagrams



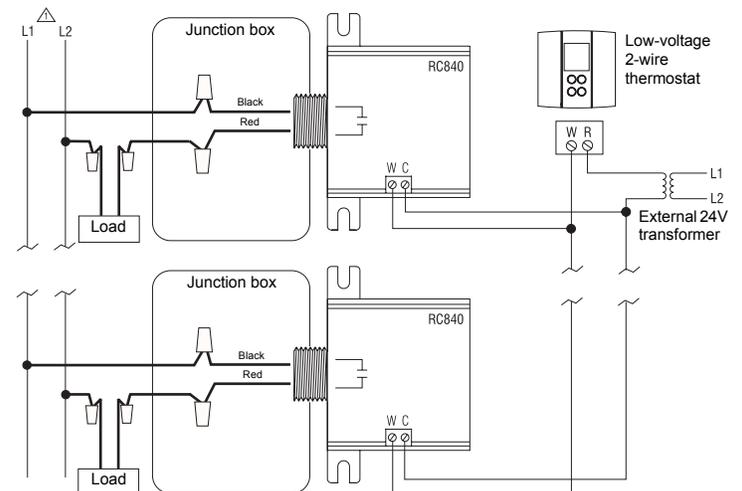
1 You must provide an overload protection and disconnect as required.

Figure 1 : Connection to a 2-wire low voltage thermostat using a 24 V external transformer



1 You must provide an overload protection and disconnect as required.

Figure 2 : Connection to a 3-wire low voltage thermostat using a 24 V external transformer



1 You must provide an overload protection and disconnect as required.

Transformer VA output = RC840 Quantity x 1.2 VA

Figure 3 : Connection to a 2-wire low voltage thermostat using a 24 V external transformer and multiple relays

## 4 Electrical Specifications

Ensure ratings are suitable for your application.

Voltage (VAC)	120	208	240	277	347
Resistive load (A)	22	22	22	19	18
Inductive load (HP)	0.8	1.0	1.5		
FLA	16	13	12		
LRA	42				
Control signal	24 V / 40 mA / 1 VA				

**Ambient operating temp.:** -4°F to 140°F (-20°C to 60°C)

**Ambient storage:** -40°F to 175°F (-40°C to 80°C)

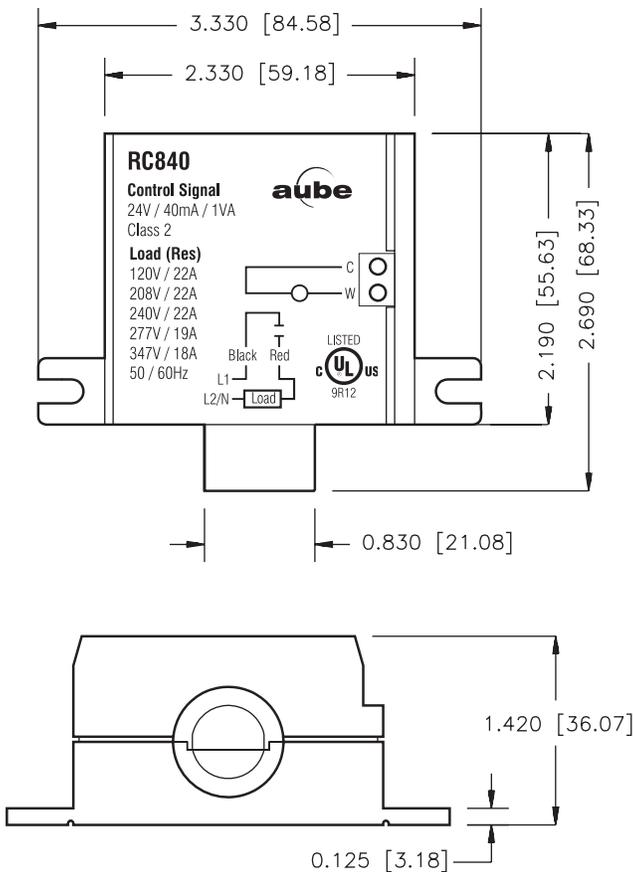
**Humidity limits:** 0 to 95% non-condensing

**Net weight:** 7 oz. (198 g)

**Terminal wire size:** 12 AWG

**Certification:** 

## 5 RC840 Dimensions



Dimensions are expressed in INCHES [MM]

## ✓ Warranty

Resideo warrants this product, excluding battery, to be free from defects in workmanship or materials, under normal use and service, for a period of three (3) years from the date of first purchase by the original purchaser. If at any time during the warranty period the product is determined to be defective due to workmanship or materials, Resideo shall repair or replace it (at Resideo's option).

If the product is defective,

(i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it; or

(ii) call Resideo Customer Care at 1-468-1502. Customer Care will make the determination whether the product should be returned to the following address: Resideo Return Goods, 1985 Douglas Dr. N., Golden Valley, MN 55422, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Resideo that the defect was caused by damage which occurred while the product was in the possession of a consumer.

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