

## Q-Series Room Temperature Sensors 0 to 10V or 4 to 20 mA

### Product Description


The Q-Series Room Temperature Sensors monitor and transmit changes in temperature to building control systems. Several models are available.

### Product Numbers

QAA2062.FWU  
QAA2062.WU

QAA2072.FWNU  
QAA2072.FWU  
QAA2072.WU

### Caution Notations

<b>CAUTION:</b>		Equipment damage or loss of data may occur if you do not follow a procedure as specified.
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### Required Tools

- Phillips screwdrivers, sizes 1 and 2
- Medium flat-blade screwdriver
- Wire cutters/strippers
- Tape measure
- Medium-duty electric drill
- Drill bit for wall anchor hole
- Marker or pencil
- Two No. 10 screws and wall anchors

### Expected Installation Time

30 minutes

### Prerequisites

- Ensure that the appropriate field wiring is installed.  
Appropriate wiring is one or more twisted pair or three conductor cables (plenum or non-plenum as required) within the maximum wiring run length for the temperature controller. The maximum recommended length is 750 feet (229 m).
- Ensure that all wiring complies with National Electric Code (NEC) and local regulations.

### Installation



#### CAUTION:

These sensors require DC voltage only. Do not attempt to connect to an AC power source.

Always mount the sensor vertically.

Locate the sensor:

- According to design specifications and local regulations.
- Where the air circulates around it freely (not in recessed areas or behind doors).
- Allowing a minimum of 4 inches (10 cm) of free space above and below for proper airflow and access.
- Away from drafts caused by doors, windows, outside walls, air registers, pipes, return air plenums, etc.
- Away from heat sources, such as strong lights, fireplaces, direct sunlight, etc.
- On an inside wall (preferably), about 5 feet (1.5 m) above the finished floor.

**NOTE:** Local codes (such as the Americans with Disabilities Act) may require a specific mounting height.

### Drywall Mounting (No Rough-in), Typical

1. Using the sensor base plate as a template, mark the center field wiring hole and the mounting hole locations (Figure 1).  
**NOTE:** For drywall mounting, use only the top and bottom holes.
2. Drill two 3/16-inch (4.8 mm) mounting holes. If you are using screws to attach the sensor, insert two plastic wall anchors into the holes.
3. Cut a 1-inch (25 mm) center hole with a hole saw.

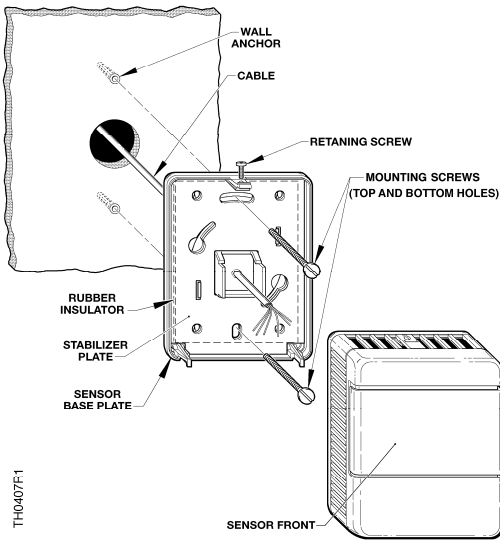


Figure 1. Drywall Mounting (No Rough-in), Typical.

4. Pull about 6 inches (150 mm) of the field wiring cable through the hole in the wall and the sensor base plate.
5. Secure the field wiring in the terminal block located on the printed circuit board.
6. Push the field wiring cable through the hole in the wall and loosely mount the sensor base plate on the wall using the screws provided. Do not tighten the screws.
7. Level the sensor base plate for appearance and then tighten the mounting screws.



**CAUTION:**

Over-tightening the mounting screws may cause the sensor base plate to flex or crack.

8. Feed the extra field wiring back through the hole in the sensor base plate.
9. Snap the sensor pieces together by hooking the feet of the base plate into the slots on the front plate, then pushing the top of the sensor until it snaps into place.
10. Tighten the sensor front retaining screw (Figure 1).

The installation is now complete.

**Wiring Diagrams**

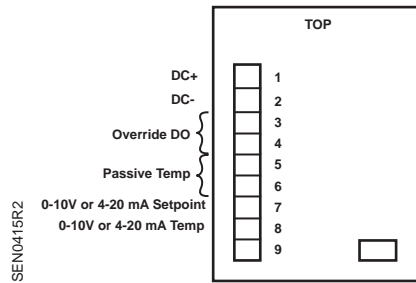


Table 1. Room Temperature Sensors with Active Outputs Installation, 0V to 10V or 4 to 20mA.

Available Features	Sensor Terminals Used			
	Power* 1 & 2	Temp 8 & 2	Setpt 7 & 2	Ovrd 3 & 4
Temp: Sensing only	•	•	–	–
Temp: Sensing with Display	•	•	–	–
Temp: Full-featured	•	•	•	•

\* Power requirements for these devices is 20 to 30 Vdc.

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