SIEMENS

Installation Instructions
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Q-Series Room Relative Humidity and Relative Humidity & Temperature Sensors

Product Description

The Q-Series Room Relative Humidity and Relative Humidity & Temperature Sensors monitor and transmit changes in humidity and temperature to the building control systems. These units are especially suited for applications where precise, stable humidity sensing is required.

These combined relative humidity and temperature units have a 0 to 10V or 4 to 20 mA output signal for the humidity output and a 0 to 10V, 4 to 20 mA or passive resistive sensor element for the temperature output.

Product Numbers

QFA30XX

Accessories

544-782A	Single Adapter Base Kit (Beige)
544-782B	Single Adapter Base Kit (White)
544-783A	Double Adapter Base Kit (Beige)
544-783B	Double Adapter Base Kit (White)
544-784	Non-Conduit Rough-In Kit
544-785A	Extender Ring Kit (Beige)
544-785B	Extender Ring Kit (White)

Caution Notations

CAUTION:		Equipment damage or loss of data may occur if you do not follow the procedures as specified.

Required Tools

- Phillips screwdrivers, sizes 1 and 2
- Medium flat-blade screwdriver
- Wire cutters/strippers
- Tape measure
- Medium-duty electric drill
- 3/16” Drill bit for wall anchor holes
- Marker or pencil
- Hole saw
- 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 humidity/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.

NOTE: 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 air flow 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

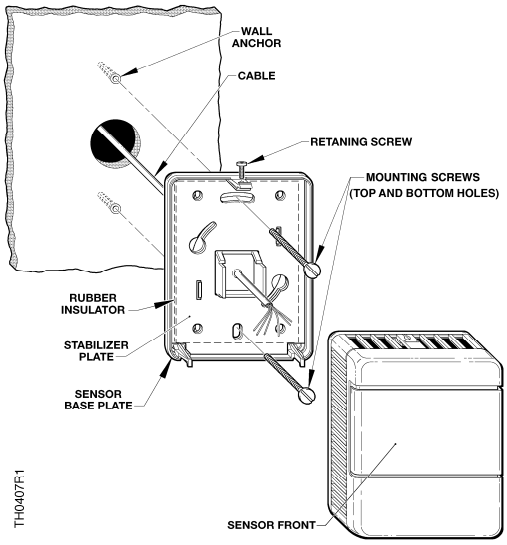

Figure 1. Drywall Mounting (No Rough-in), Typical.

1. Using the sensor base plate as a template, mark the center field wiring hole and the mounting hole locations (See Figure 1).

   NOTE: For drywall mounting, use only the top and bottom holes.

2. Drill two 3/16-inch (4.8 mm) mounting holes. Insert two plastic wall anchors into the holes for the mounting screws.
3. Cut a 1-inch (25 mm) center hole with a hole saw.
4. Pull about 6 inches (150 mm) of the field wiring cable through the hole in the wall and insert through the back of 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 may cause the sensor base plate to crack or bend.

8. Feed the extra field wiring cable 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 (See Figure 1).

The installation is now complete.

Wiring Diagram

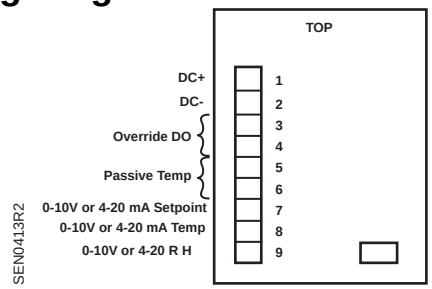

Table 1. Room Relative Humidity Sensors Installation, 0 to 10V or 4 to 20 mA.

Available Features	Sensor Terminals Used				
	Power* 1 & 2	RH 9 & 2	Temp 8 & 2	Setpt 7 & 2	Ovrd 3 & 4
RH: Sensing only	•	•	–	–	–
RH: Sensing with Display	•	•	–	–	–
RH and temperature: Sensing only	•	•	•	–	–
RH and temperature: Sensing with Display	•	•	•	–	–
RH and temperature: Full-featured	•	•	•	•	•

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

NOTE: The override and passive temperature outputs are isolated circuits. To reduce wiring, you may jumper pins 3 and 2 or pins 5 and 2; however, the inputs on your controller must be referenced to the same ground that is powering the sensor.

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