## Honeywell

# C7031J, C7041J,R Averaging Sensors

C7031J, C7041J CABLE C7041R RIGID COPPER



#### INSTALLATION INSTRUCTIONS

## **INSTALLATION**

## When Installing this Product...

- Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
- Check ratings given in instructions and on the product to ensure the product is suitable for your application.
- Installer must be a trained, experienced service technician.
- After installation is complete, check out product operation as provided in these instructions.

#### **IMPORTANT**

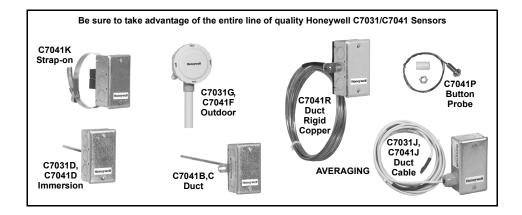
All wiring must agree with applicable codes, ordinances and regulations.

## MOUNTING

C7031J, C7041J Wire/Thermistor Averaging Sensors and C7041R Rigid Copper Averaging can be mounted in a duct to sense average air temperature.

#### IMPORTANT

Select a spot for the sensor to expose it to average duct air temperature. Avoid locations where stratification can cause sensing errors.





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## C7031J, C7041J Mounting

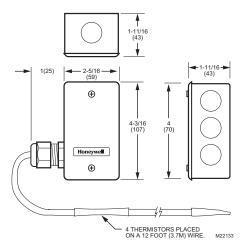


Fig. 1. C7031J, C7041J dimensions in in. (mm).

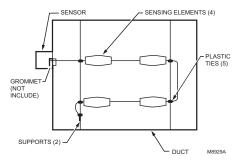


Fig. 2. Duct cross section showing method of installing C7031J, C7041J Averaging Electronic Sensor.

- Install two supports inside the duct to hold the averaging element.
- Cut a 7/8 in. (22 mm) hole in the side of the duct to insert the averaging element.
- Fasten the terminal box to the outside of the duct and thread the element through the hole and into the duct.
- Use plastic wire ties to fasten the element to the supports. Seal the hole around the element with a rubber grommet.
- 5. Secure the end of the element to the duct on the support to prevent continuous flexing or abrasion.

#### IMPORTANT

To ensure that the C7031J/C7041J senses average duct temperature, position the temperature elements approximately as shown in Fig. 2. Do not allow the elements to touch or be close to the duct sides.

NOTE: When the sensor is used as a deck sensor in a multizone system, be sure to space the elements equally in the duct midstream as shown in Fig. 3.

Install one C7031J/C7041J just upstream from the cold deck zone dampers and the other C7031J/C7041J upstream from the hot deck zone dampers. Position the thermistors to sense the average deck temperature.

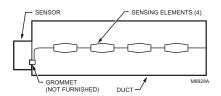


Fig. 3. Duct cross section showing method of installing C7031J/C7041J in a multizone system.

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## C7041R Mounting

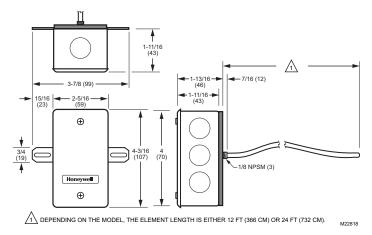


Fig. 4. C7031R dimensions in in. (mm).

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- Install two supports inside the duct to hold the averaging element.
- 2. Cut a 7/8 in. (22 mm) hole in the side of the duct.
- 3. Insert the averaging element into the duct through the hole.
- Fasten the terminal box to the outside of the duct and thread the element through the hole and into the duct.
- Use plastic wire ties to fasten the element to the supports. Seal the hole around the element with a rubber grommet.
- Secure the end of the element to the duct on the support to prevent continuous flexing or abrasion.

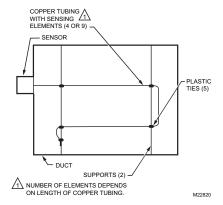


Fig. 5. Duct cross section showing method of installing C7041R Averaging Electronic Sensor.

#### **IMPORTANT**

To ensure that the C7041R senses average duct temperature, position the temperature elements approximately as shown in Fig. 5. Do not allow the elements to touch or be close to the duct sides

NOTE: When the sensor is used as a deck sensor in a multizone system, be sure to space the elements equally in the duct midstream as shown in Fig. 6.

Install one C7041R just upstream from the cold deck zone dampers and the other C7041R upstream from the hot deck zone dampers. Position the thermistors to sense the average deck temperature.

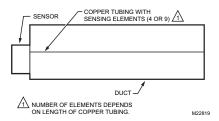


Fig. 6. Duct cross section showing method of installing C7041R in a multizone system.

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### **Automation and Control Solutions**

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