



**Ordering Number:**  
X13790423010/SEN01092  
X13790422010/SEN01087

**Type:**  
Duct sensor  
Wall Sensor

3270 3362

**SAFETY WARNING**  
Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

June 2020

BAS-SVN160J-EN  
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### 1 Warnings, Cautions, and Notices

Read this manual thoroughly before operating or servicing this unit. Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

- WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- CAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe equipment or property-damage only accidents.
- NOTICE** Indicates a situation that could result in equipment or property-damage only accidents.

#### Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs such as HCFCs and HFCs.

#### Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

### 2 WARNING

**Proper Field Wiring and Grounding Required!**  
Failure to follow code could result in death or serious injury. All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state electrical codes.

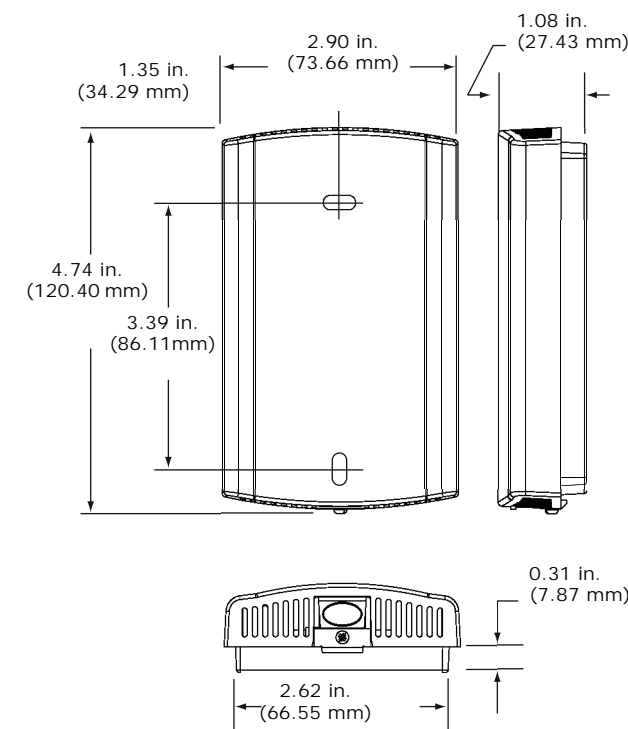
**WARNING**  
**Personal Protective Equipment Required!**  
Installing/servicing this unit could result in exposure to electrical, mechanical and chemical hazards. Before installing/servicing this unit, technicians MUST put on all Personal Protective Equipment (PPE) recommended for the work being undertaken. ALWAYS refer to appropriate SDS sheets and OSHA guidelines for proper PPE. When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection and handling recommendations. If there is a risk of arc or flash, technicians MUST put on all necessary Personal Protective Equipment (PPE) in accordance with NFPA70E for arc/flash protection PRIOR to servicing the unit. Failure to follow recommendations could result in death or serious injury.

**WARNING**  
**Follow EHS Policies!**  
Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

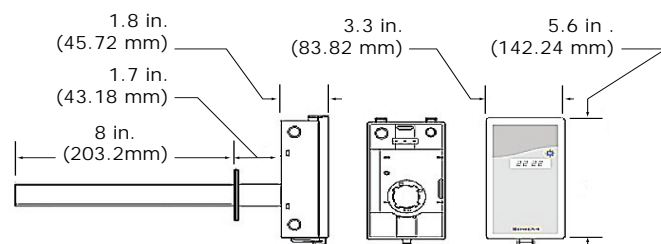
### 3 Wall mounted Sensor Dimensions

Figure 1. Wall Mount



### 4 Duct-mounted Sensor Dimensions

Figure 2. Direct Mount



### 5 Wall-Mounted Sensor Installation

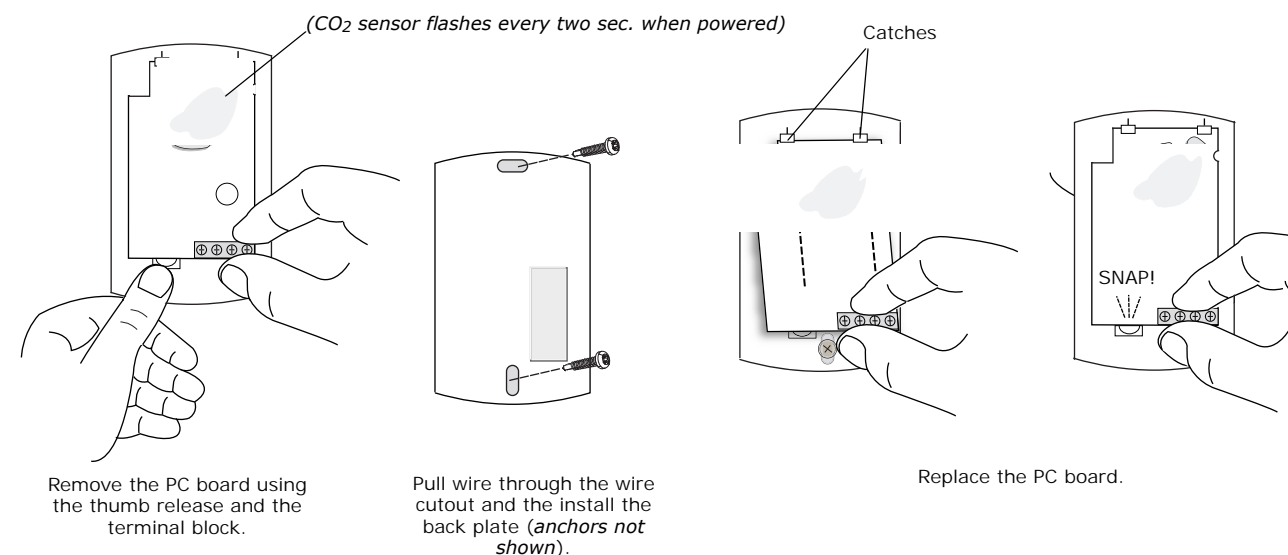
To install a wall-mounted sensor (see Figure 3):

**Note:** When locating sensors, ensure that an access hole can provide for wires that are either labeled or identified by color.

1. If there is a security screw at the bottom of the sensor enclosure, then remove it completely.
2. Press the thumb tab at the bottom of the sensor enclosure and then lift up on the enclosure to remove it from the top of the back plate.
3. Follow the instructions illustrated below to complete the installation.
4. Replace the enclosure and if there was a security screw, re-secure it to the bottom of the sensor.

### 6 Figure 3. Installing the Wall-mounted Sensor

**NOTICE**  
**Equipment Damage!**  
Do not touch CO<sub>2</sub> Sensor. Touching the sensor may result in equipment damage.



## Duct-mounted Sensor Installation

To install the duct-mounted sensor (See Figure 4):

**Note:** The circuit board LED is off during normal operation. The LED comes on solid if the self-diagnostic procedure detects an abnormality.

1. Drill a 1-inch diameter hole at the location for the sampling probe ①.
2. Attach a sealing gasket ② and a mounting plate ⑩ to the duct wall with two washers ④ and two screws ⑤.

**Note:** The illustration shows only one screw and one washer. Matching components are on the other side of the sampling probe.

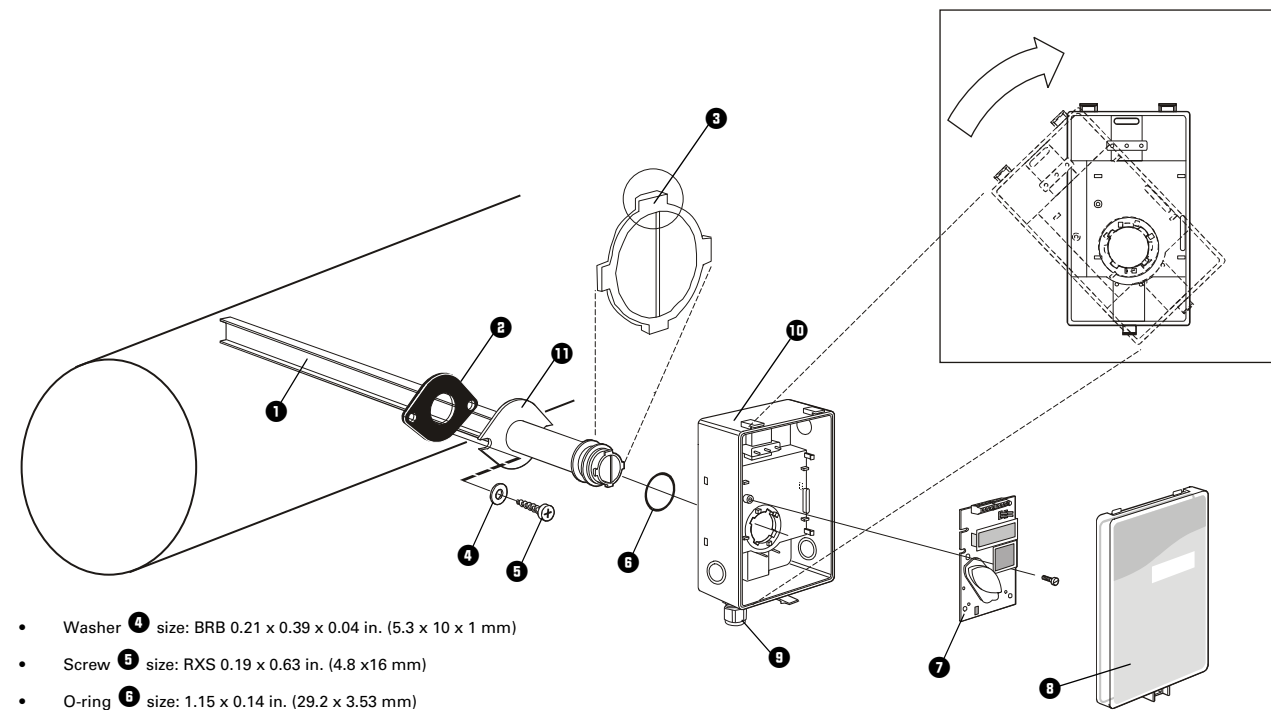
3. Place an O-ring ⑥ over the sampling probe and then insert the sampling probe into the hole in the sensor box ⑩.
4. Rotate the sampling probe to ensure that the largest locking knob ③ of the probe is at its highest position.

**Note:** The two screws that attach the mounting plate now align parallel to the airflow.

5. Turn the sensor box slightly counterclockwise as shown in the illustration.
6. Mount the sensor box to the probe and then turn the sensor box clockwise until it stops.
7. Install the PC board ⑦ and finally, install the cover ⑧.

**Note:** The cable-entry bushing ⑨ is a feed through for wiring.

Figure 4 Installing the direct-mounted sensor



## Wiring the Sensors

### ⚠ WARNING

**Hazardous Voltage!**  
Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. Failure to disconnect power before servicing could result in death or serious injury.

### NOTICE

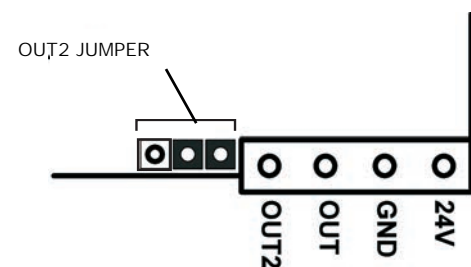
**Help Ensure the Proper Operation of Equipment!**  
All field-installed wiring must be completed by qualified personnel. All field-installed wiring must comply with NEC and applicable local codes. Failure to follow this instruction could result in the equipment not operating properly.

### NOTICE

**Avoid Equipment Damage!**  
Make sure that you connect the power wires to the correct terminals. Connecting power to an output terminal may result in equipment damage.

To wire the sensors:

1. Connect the unit controller common wire to the ground terminal (GND) on the sensor PC board.



If the OUT2 Jumper is positioned as shown here, the output at the OUT2 terminal is 4–20 mA

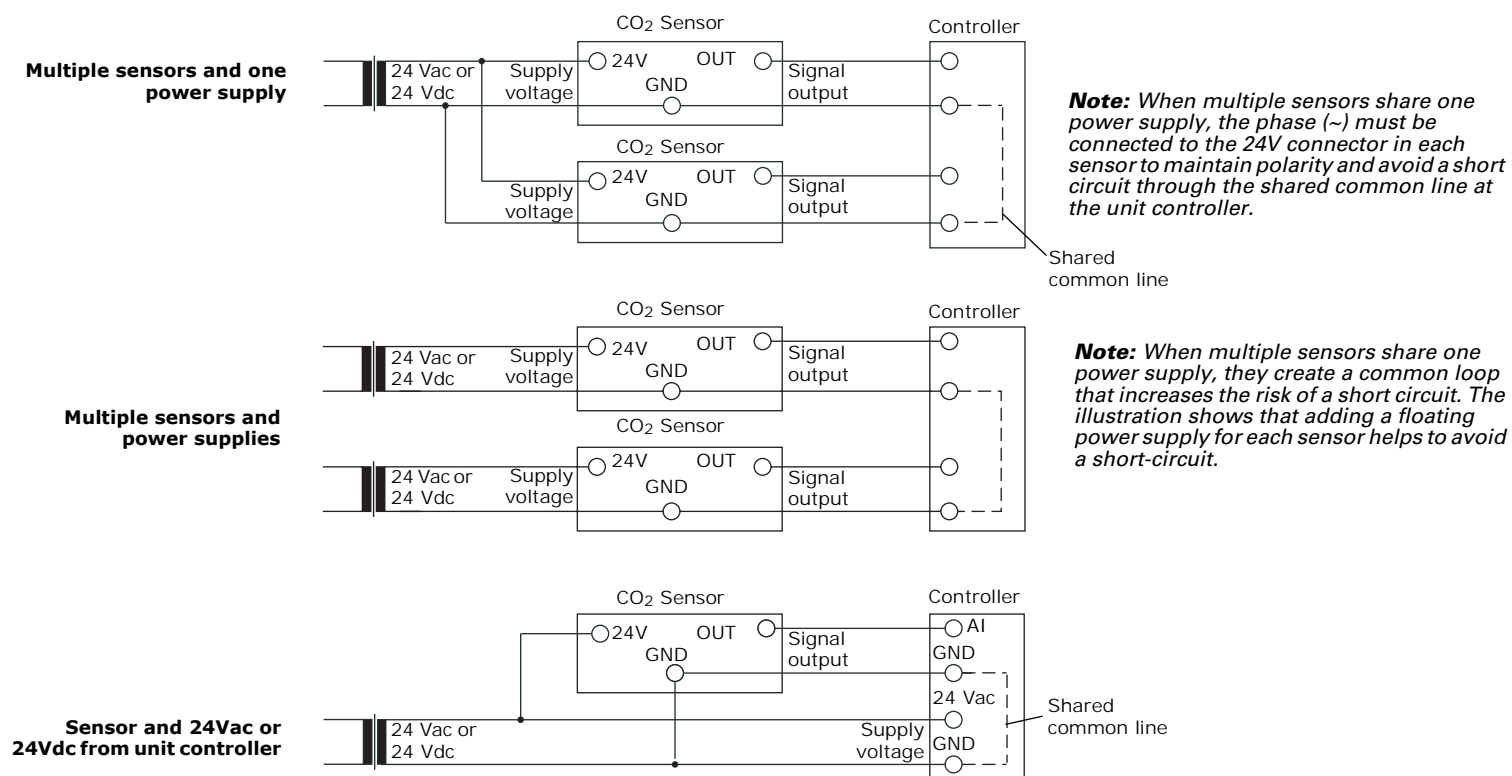
If the OUT2 Jumper is positioned as shown here, the output at the OUT2 terminal is 2–10 Vdc

**OUT** The output at this terminal is 0–10 Vdc

2. Connect the power wire to terminal 24V.
3. Wire the sensors using the correct configuration from the choices shown in Figure 5.
4. Hook the cover at the top of the back plate and then lower the cover to the back plate and apply light pressure to the bottom of the cover until it snaps into the back plate.

**Note:** If required, install the security screw at the bottom of the enclosure.

Figure 5 Sensor wiring options



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