

**IMPORTANT: READ ALL OF THESE INSTRUCTIONS BEFORE INSTALLING THE SENSOR.****SAFETY CONSIDERATIONS**

Read and follow the manufacturer instructions carefully. All wiring must conform to local and national electrical codes. Improper wiring or installation may damage the sensor.

Recognize safety information. This is the safety alert symbol . When the safety alert symbol is present on equipment or in the instruction manual, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies a hazard which could result in personal injury or death. CAUTION is used to identify unsafe practices which may result in minor personal injury or property damage.

**GENERAL**

The Duct Sensor measures indoor air temperature in the return air duct with a range of -40° to 127°F. If used indoors as a remote temperature sensor, the sensor will read room temperature and send the information to the thermostat. If used as a duct temperature sensor, this sensor may be used to provide duct temperature information (which is not used to control heating or cooling).

**1 Sensor Location**

**CORRECT LOCATION** —When used as a duct sensor, this sensor should be mounted in the return air duct. When used as a remote temperature sensor, the Duct Sensor should be mounted in an indoor location approximately five feet from the floor, close to or in a frequently used room, preferably on an inside partitioning wall or on a section of wall without pipes or ductwork. Mount the sensor where temperature operating limits are within 32° to 99°F and the humidity operating range is within 0 to 95% relative humidity, non-condensing.

**INCORRECT LOCATIONS** —The Duct Sensor should *NOT* be mounted close to a window, on an outside wall, or next to a door leading to the outside. Do not mount the sensor in a location where it would be exposed to direct light and heat from a lamp, the sun, a fireplace, or any other temperature-radiating object which may cause a false reading. Finally, do not mount the sensor close to or in direct airflow from supply registers or return air grilles and in areas with poor air circulation (such as behind a door or in an alcove).

**2 Wiring Requirements**

The Duct Sensor should be connected to the thermostat using solid conductor CAT 5, CAT 5e, or CAT 6 type network communication cable. This is an unshielded cable with four twisted pairs of 24 gauge solid wire; *DO NOT use stranded cable*. The cable length should not exceed 250 feet. If less than 75 feet of cable is required to connect the thermostat to the Duct Sensor, a three conductor thermostat cable (18-24 gauge) may be used; this cable is *NOT* suitable for any length greater than 75 feet.

**IMPORTANT:** Do not use shielded wire. Do not run sensor wiring in the same conduit as the 24VAC thermostat wiring. Electrical interference may cause the sensor to give incorrect temperature readings.



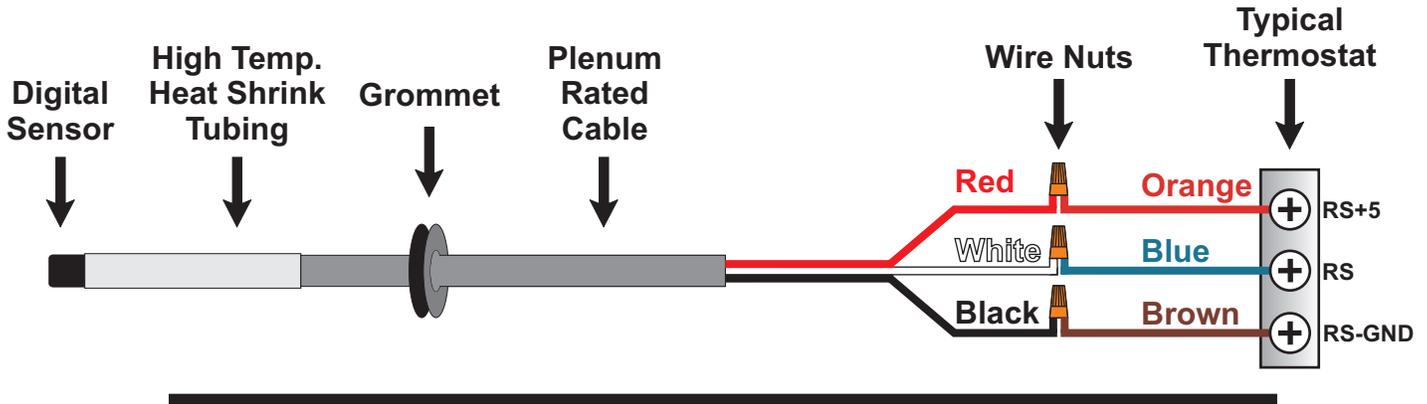
**NOTE:** All sensor wiring must be in compliance with all applicable local and national codes.

### 3 Sensor Wiring

#### ⚠ WARNING

Turn off power to the thermostat before wiring. Death or injury from electric shock could result.

The connection between the Duct Sensor and the thermostat must be wired per the connection diagram. Only three conductors are used, therefore the extra conductors should be cut from each end of the cable to prevent shorting. Follow the color coding as shown.



### 4 Sensor Installation

**INDOOR INSTALLATION**— Perform the following procedures to install the sensor:

1. Select a location in the return air ductwork for the sensor. Mark this location in the center of the duct.
2. Drill a 1/4-in. mounting hole in the ductwork at the marked location.
3. Push the rubber grommet into the hole in the ductwork until the grommet snaps into place.
4. Push the Duct Sensor through the grommet into the return air duct.

