

## T7022A Remote Temperature Sensor

### INSTALLATION INSTRUCTIONS

#### APPLICATION

The T7022 Remote Temperature Sensor is a non-adjustable thermistor sensor. Its primary use is with the T7300 Programmable Commercial Thermostat (*only* in return air) to control heating or cooling equipment.

**NOTE:** The T7022 can also be used with a T7100F, provided the proper Q7100 subbase—one capable of handling more than one stage of heat—is used.

#### INSTALLATION

##### When Installing this Product...

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

#### CAUTION

**Erratic System Operation Hazard.**  
**Failure to follow proper wiring practices can introduce disruptive electrical interference (noise).**

Keep wiring at least one foot away from large inductive loads such as motors line starters, lighting ballasts, and large power distribution panels.

Shielded cable is required in installations where these guidelines cannot be met.

Ground shield only to grounded controller case.

#### CAUTION

**Electrical Shock or Equipment Damage Hazard.**  
**Can shock individuals or short equipment circuitry.**  
Disconnect power supply before installation.

#### IMPORTANT

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

#### Wiring (Fig. 1)

Wiring for the T7022 Remote Temperature Sensor can be run with class 2 wire in accordance with the National Electrical Codes. Conduit and/or shielding are not necessary for satisfactory operation, but conduit may be required by local codes or practices.

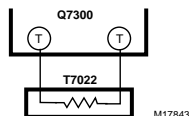


Fig. 1. Typical wiring diagram.

#### Location

The T7022 Thermostat must be mounted in the return-air flow in ducts (see Fig. 2 and 3) or light troffers (see Fig. 4 and 5). All mounting locations must be where the sensor is not affected by heat from the lights or other sources.

#### Mounting

The T7022 can be mounted in a duct with the furnished bracket, or in a light troffer as shown in Fig. 4 and 5 with two rubber grommets (not supplied) if proper spacing is available. Mounting can be directly in the return-air passage or in an air-sampling box. The rubber grommets can be used to wedge the sensor in slot openings of approximately 3/8 in. to 1/2 in. wide.

When using the mounting bracket, the maximum duct insertion length for the T7022 is approximately 2-3/4 in.

**NOTE:** A piece of 3/8 in. diameter conduit can be used to extend the sensor further inside a duct (see Fig. 3). The use of such an extension can increase the maximum insertion length to approximately 9-1/2 in.



## Duct Mounting

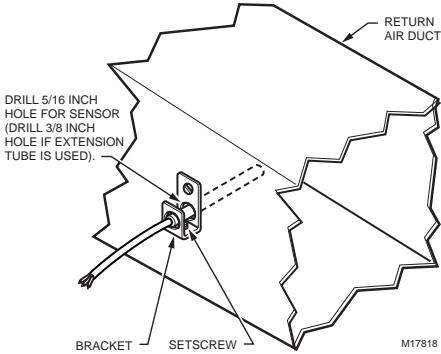


Fig. 2. Duct mounting with mounting bracket.

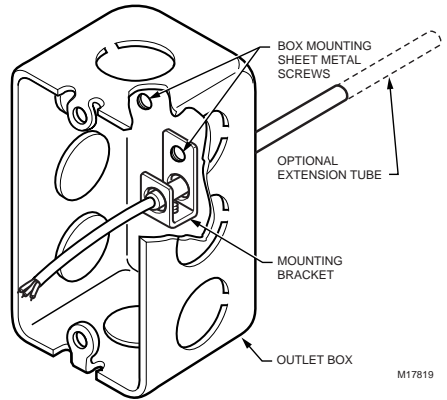


Fig. 3. Duct or light troffer mounting where wiring must be run in conduit.

## Light Troffer Mounting

NOTE: Fig. 4 and 5 illustrate T7022 mounting for individual zone control. This type of application requires the use of an M7034 Electronic Modutrol<sup>®</sup> Motor. In applications with an M7034, an S963 can be used to provide remote setpoint adjustment, if desired.

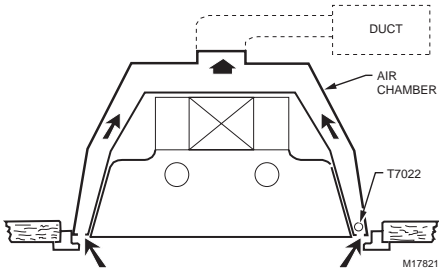


Fig. 4. Cross section of light troffer showing a typical mounting location of the side of the light troffer.

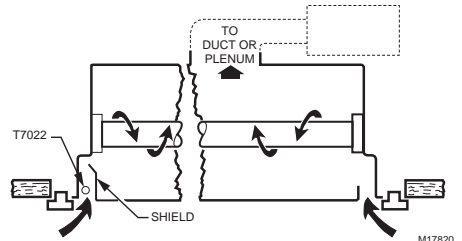


Fig. 5. Cross section of light troffer showing a typical mounting location at the end of the light troffer.

## CHECKOUT

Move set point above and below room temperature to make sure controlled equipment operates properly. See other system component instructions for additional checkout procedures.

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