

C7772A, F, G Wallplate Temperature Sensors

INSTALLATION INSTRUCTIONS

APPLICATION

The C7772A, F, G Wallplate Temperature Sensors provide a resistive output signal proportional to sensed room or space temperature. The sensors are well suited for low profile wall mounted applications where durability and tamper-proof construction is desired, such as schools, prisons and institutions.

The C7772A Wallplate Temperature Sensors are designed to be used with the Excel 5000 family, XL10, XL15, T7350, and other Honeywell controllers. The C7772Fs are designed to be used with the TB7600, TB7300, and the TB7200 Series communicating thermostats and other controllers requiring a 10K NTC Type II sensor. The C7772Gs are designed to be used with WEBS-AX I/O modules and other controllers requiring a 10K NTC Type III sensor.

3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.
5. Follow local codes for installation and application.

IMPORTANT

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



CAUTION

Electrical Shock or Equipment Damage Hazard.

Can shock individuals or short equipment circuitry.

Disconnect all power supplies before installation.

Location

The sensor should be located where it can sample an average air temperature. Avoid locations where air stratification can cause sensing errors. The sensor mounts directly on a 2 in. x 4 in. conduit box with the screws provided.

Mounting

To mount on conduit box (see Fig. 2):

1. Remove the appropriate knockout on the standard utility conduit box for the application.
2. Make wiring connections to the system components.

IMPORTANT

Level only for appearance. The sensor functions normally even when not level.

3. Use the No. 6 screws provided to mount the wallplate to the conduit box.

Wiring



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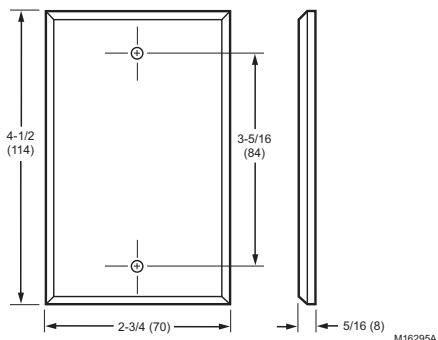


Fig. 1. C7772 Dimensions in in. (mm).

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.



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.

IMPORTANT

- Temperature sensor wiring can be sized from 16 to 20 AWG depending on the application.
- The maximum length of wire from a device to the wallplate sensor is 300 ft (91m).

NOTE: Erratic temperature readings from a sensor can be caused by the wiring practices described below. These must be avoided to assure proper operation:

1. Do not route temperature sensor wiring with building power wiring, next to control contactors, near light dimming circuits, electric motors or welding equipment.
2. Avoid poor wiring connections.
3. Do not mount sensor in an incorrect environment.

Connect the low voltage wiring from the controller terminals to the sensor wires using wire nut connectors (not provided). See Fig. 2.

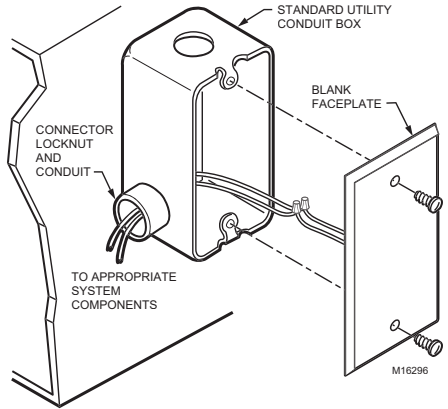


Fig. 2. Mounting and wiring for C7772.

OPERATION

The sensor provides a resistive output signal proportional to the sensed room temperature.

CHECKOUT

The sensor is immediately operational after wiring connections are made. Use an accurate thermometer of $\pm 1^\circ\text{F}$ (0.5°C) to measure the temperature at the sensor location. To verify sensor accuracy, use an ohmmeter to measure the resistance across the sensor wires and use Table 1 to check the accuracy of the specific model.

Table 1. Typical Resistance of Sensor Models.

	Typical Resistance (in ohms)		
	C7772A (20K ohm NTC)	C7772F (10K Ohm NTC Type II)	C7772G (10K Ohm NTC Type III)
At 41°F (5°C)	54,200	25,392	23,467
At 50°F (10°C)	41,758	19,901	18,789
At 59°F (15°C)	32,427	15,712	15,137
At 68°F (20°C)	25,370	12,493	12,268
At 77°F (25°C)	20,000	10,000	10,000
At 86°F (30°C)	15,856	8,057	8,196
At 95°F (35°C)	12,654	6,531	6,754

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