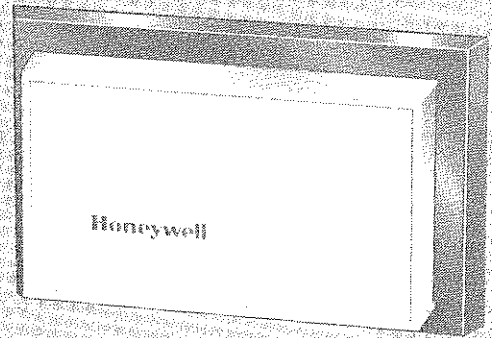


Honeywell

THE C7056A1001 IS A HIGH ACCURACY INDOOR TEMPERATURE SENSOR FOR USE WITH THE W7000 LOAD CONTROL SYSTEM, THE W7025 DATA PROCESSING PANEL, AND THE W9076 DIGITAL TEMPERATURE INDICATOR.

- Provides indoor temperature sensing capability in a small attractive wall mount package.
- High accuracy temperature sensing (plus or minus 2 F [1.1 C]) over a wide range of temperatures (minus 60 F [minus 51 C] to plus 127 F [plus 53 C]).
- Can be located up to 2000 ft from W7000, W7025 and W9076.
- The C7056 is interchangeable with the standard accuracy sensor.

INDOOR TEMPERATURE SENSOR



C7056A1001

SPECIFICATIONS

MODEL: C7056A1001.

AMBIENT TEMPERATURE RANGES:

Operating—Minus 60 F [minus 51 C] to plus 127 F [plus 53 C].

Shipping—Minus 60 F [minus 51 C] to plus 130 F [plus 54 C].

Sensing Accuracy— With W7000 Series II, W7025 and W9076 plus or minus 2 F [1.1 C].

Humidity—90% RH at 90 F (32 C) non-condensing environment.

WIRING:

Wire—Two-wire No. 26 AWG shielded cable required for wiring C7056 to W7000, W7025 and recommended for the W9076 (for distances over 50 ft [15 m]).

Maximum Sensor Wire Length—2000 ft [610 m] using 26 AWG wire.

Terminals—Screw terminals.

MOUNTING: Two holes provided in base of device for mounting onto wall or into conduit box.

DIMENSIONS: See Fig. 1.

WIRE AVAILABLE FOR THE C7056

TEMPERATURE SENSOR:

Shielded Cable—Required for wiring C7056 temperature sensor to W7000 or W7025.

Shielded Cable Recommended—For wiring C7056 temperature sensor to W9076 Digital Temperature Indicator at distances greater than 50 ft

[15 m] to prevent possible electrical noise from causing an erratic display.

4074CAV—50 ft [15 m].

4074CAW—100 ft [30 m].

4074CAY—200 ft [60 m].

ADDITIONAL EQUIPMENT REQUIRED:

For Use With W7000— W7000 Load Control Panel.

For Use With W7025— W7000, Q7000 Communication Module, W7025 Data Processing Panel.

For Use With W9076— W9076 Digital Temperature Indicator.

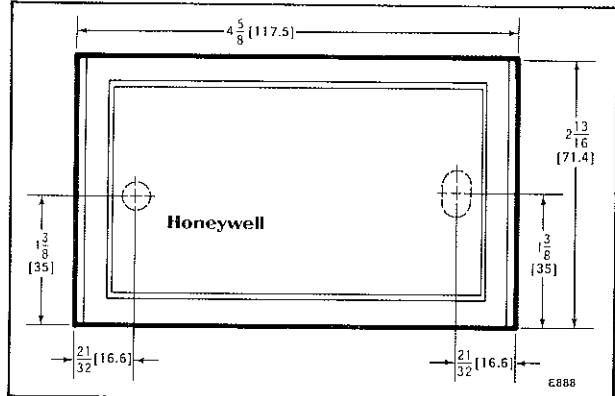


FIG. 1—APPROXIMATE DIMMENSIONS IN in. [mm IN BRACKETS].

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. The installer must be a trained, experienced service technician.

4. After installation is complete, check out product operation as provided in these instructions.

(continued on page 3)

ORDERING INFORMATION

WHEN PURCHASING REPLACEMENT AND MODERNIZATION PRODUCTS FROM YOUR AUTHORIZED ENERGY MANAGEMENT DISTRIBUTOR, REFER TO THE TRADELINE CATALOG OR PRICE SHEETS FOR COMPLETE ORDERING NUMBER, OR SPECIFY—

- 1. Order number.
- 2. Additional equipment required.

IF YOU HAVE ADDITIONAL QUESTIONS, NEED FURTHER INFORMATION OR WOULD LIKE TO COMMENT ON OUR PRODUCTS OR SERVICES, PLEASE WRITE OR PHONE:

1. YOUR LOCAL HONEYWELL RESIDENTIAL DIVISION SALES OFFICE (CHECK WHITE PAGES OF PHONE DIRECTORY).

2. RESIDENTIAL CUSTOMER SERVICE
 HONEYWELL INC., 1885 DOUGLAS DRIVE
 MINNEAPOLIS, MINNESOTA 55422 (612) 542-7500

(IN CANADA—HONEYWELL LIMITED/HONEYWELL LIMITEE, 740 ELLESMERE ROAD, SCARBOROUGH, ONTARIO M1P 2V9) INTERNATIONAL SALES AND SERVICE OFFICES IN ALL PRINCIPAL CITIES OF THE WORLD.

MOUNTING AND LOCATION

1. Choose a location for the C7056A on an inside wall about 5 ft [1.5 m] above the floor.
2. Make sure there is good air circulation at average temperature at the location. Avoid the following locations as they can introduce ERRORS in temperature sensor measurements.
 - Hot areas caused by—
 - concealed pipes or ducts
 - fireplaces
 - convection heating from local devices, lighting
 - direct sunlight
 - Cold areas caused by—
 - concealed pipes or ducts
 - drafts from doors
 - unheated room on the other side of wall
 - Dead air areas—
 - in corners and alcoves
 - behind curtains and doors
3. Mark the area on the wall where the C7056 will be mounted.

WIRING GENERAL

1. All wiring must agree with local codes, ordinances, and regulations. Wire the C7056 to the W7000, W7025 or W9076 using the procedures outlined for the appropriate device.
2. Mount the C7056 to wall.

NOTE: The C7056 Temperature Sensor may be mounted directly on the wall using 2 mounting screws or may be mounted directly on a conduit box if desired.

IMPORTANT

Erratic temperature readings from a C7056 can be caused by poor wiring practices described below. These must be *avoided* to ensure proper operation.

- a. Wiring without shielded cable.
- b. Temperature sensor wiring routed with building power wiring.
- c. Temperature sensor wiring located next to control contactors.
- d. Temperature sensor wiring located by electric motors.
- e. Temperature sensor wiring located near welding equipment.
- f. Improper shield grounding or bad connections at W7000/W7025/W9076.
- g. Sensor in poor temperature environment (review all C7056 mounting and location instructions described earlier).

W7000 WIRING

The C7056A Temperature Sensor can be installed or removed from an operational W7000 without powering down this device to do so. All C7056 to W7000 wiring installations MUST use 2-wire shielded cable.

Connect the indoor temperature sensor to TEMPERATURE SENSOR 2 terminals at the bottom of the W7000 power supply board with 2-wire, shielded cable (Fig 2). Make sure the wire from temperature sensor plus (+) terminal wiring goes to the WHITE labeled terminal on the W7000 and the wire from temperature sensor minus (-) terminal goes to the BLACK labeled terminal on the W7000.

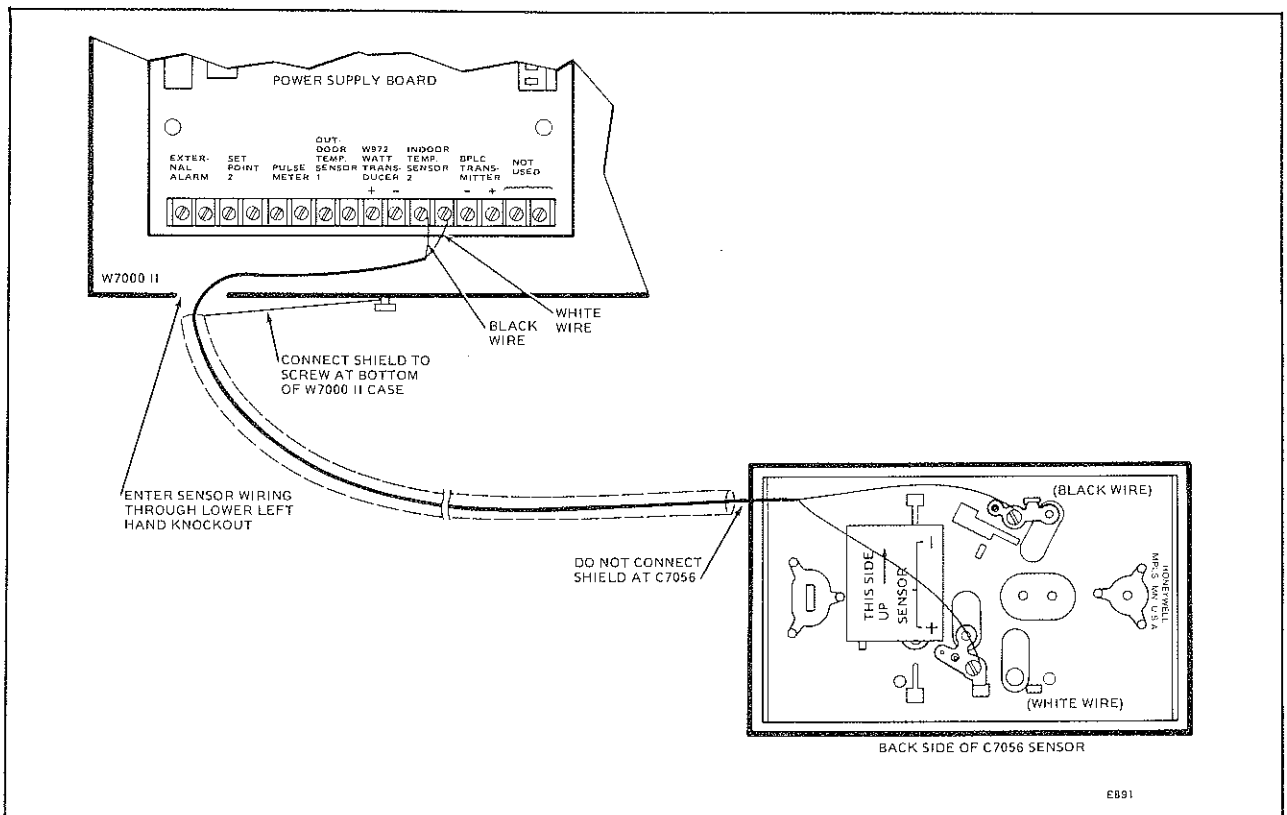


FIG. 2—WIRING THE C7056 TEMPERATURE SENSOR TO THE W7000 SERIES II.

Ground the cable shield to the enclosure screw on the bottom of the W7000 shown in Fig. 2. Run the cable through the knockout provided in the lower left-hand corner of the cabinet. Maximum cable length is 2000 ft [610 m] when using No. 26 AWG 2-wire shielded cable. Do not ground shield at C7056 Temperature Sensor.

W7025 WIRING

The C7056 Temperature Sensor can be installed or removed from an operational W7025 without powering down this device to do so. All C7056 to W7025 wiring installations MUST use 2-wire shielded cable.

Connect the indoor temperature sensor to any of the wiring inputs shown in Fig. 3. Make sure the wire from the temperature sensor plus (+) terminal goes to the left terminal and the wire from temperature sensor minus (-) terminal goes to the right terminal. Ground the cable shield to the screw terminals indicated in Fig. 3. Run the cable through knockouts at the bottom corner of the cabinet. Maximum cable length is 2000 ft [610 m] when using No. 26 AWG 2-wire shielded cable.

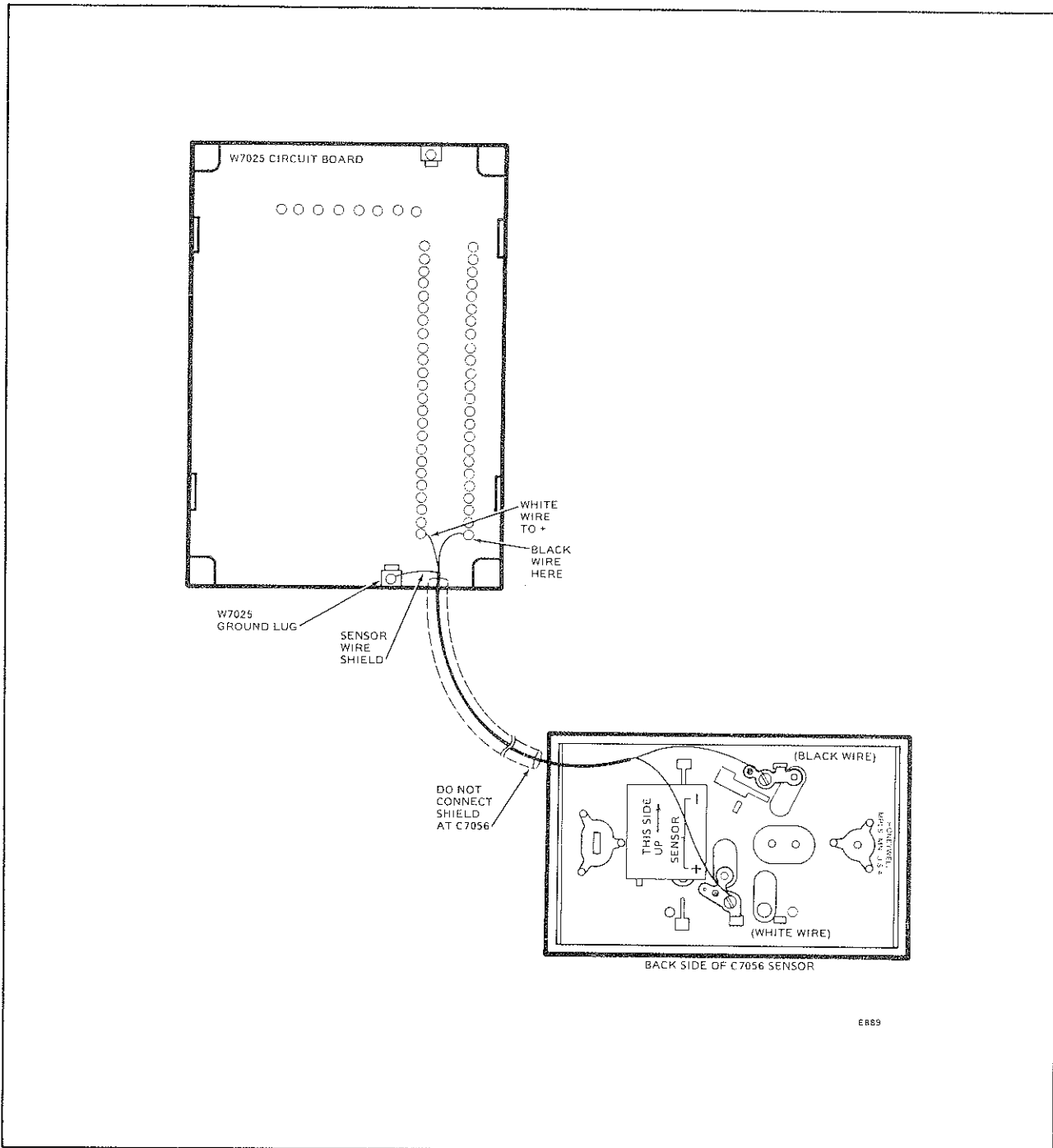


FIG. 3—WIRING THE C7056 TEMPERATURE SENSOR TO THE W7025.

W9076 WIRING

Basic wiring reference is shown in Fig. 4. Use the W9076 Digital Temperature Indicator specification sheet, Form No. 63-2093, for comprehensive wiring information.

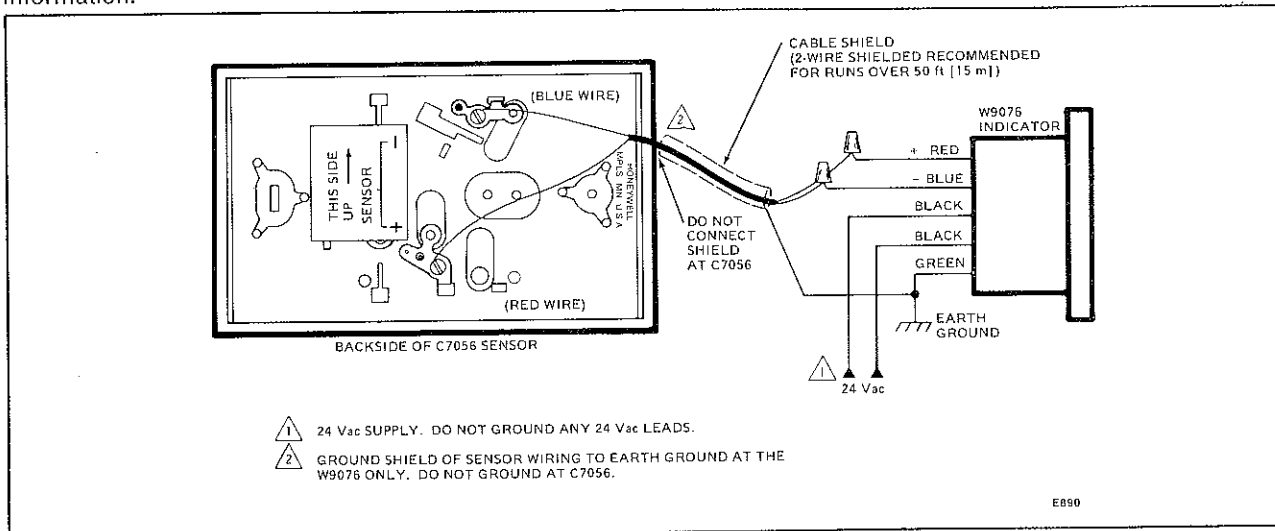


FIG. 4—BASIC WIRING INFORMATION OF C7056 TEMPERATURE SENSOR TO A W9076.

OPERATION

The C7056 is a high accuracy solid state current source temperature sensor for use in indoor, wall-mounted temperature sensing.

This temperature sensor is completely interchangeable with the 194950B Standard Accuracy or 194950E High Accuracy Encapsulated Temperature Sensors. C7056 Temperature Sensors are used with the W7000 Load Control System and the W7025 Data

Processing Panel for indoor temperature sensing. These sensors can be used as temperature inputs for duty cycling, optimum start/stop and temperature monitoring.

The C7056 Temperature Sensor can also be used with the W9076 Digital Temperature Indicator to provide a high accuracy wall-mounted temperature sensor and as a replacement for the 194950B,E encapsulated sensors.

CHECKOUT

1. With an accurate thermometer (plus or minus 1 F [0.55 C]) measure the temperature at the sensor location and allow time for thermometer to stabilize before making a reading.

2. W7000 System with C7056 Temperature Sensor:

At the W7000 panel press the **SENSOR & TEMP** key and enter the sensor number directly. Remember, the W7000 outdoor sensor is number 1, indoor sensor is 2, and the W7025 sensors are numbered 3 through 22. Allow the W7000 two minutes minimum to process new temperature before comparing thermometer and sensor reading. If readings agree, checkout is now complete; however, if readings are inaccurate or erratic advance to step 3.

W9076 Digital Temperature Indicator with C7056 Temperature Sensor:

View temperature at W9076. If readings agree, checkout is now complete; however, if readings are inaccurate or erratic advance to step 3.

3. W7000 System with C7056 Temperature Sensor:

If the reading is inaccurate or erratic, follow the comprehensive troubleshooting procedures provided in the W7000 Series II Reference Manual CHECKOUT section or checkout procedures provided in the W7025 specification sheet, Form No. 63-2122.

W9076 Digital Temperature Indicator with C7056 Temperature Sensor:

If the reading is inaccurate or erratic, follow the comprehensive checkout procedures provided in the W9076 Digital Temperature Indicator specification sheet, Form No. 63-2093.

Dear Customer,

We welcome your comments and suggestions for improving this publication. Your assistance is greatly appreciated and will enable us to provide better technical information for you.

Please send your comments and suggestions to:

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