

C7600B, H7655A Solid State Humidity Sensors

PRODUCT DATA



FEATURES

- Long-lasting solid state sensing element is accurate and stable over time.
- Enclosed in rugged, wall-mounted plastic case.
- Vents on top and sides of cover allow air flow to humidity sensing element.
- Compact size and lightweight construction provide easy mounting.
- C7600B provides 2-10 Vdc output directly proportional to relative humidity and can be used with the H775 Humidity Controller.
- H7655A provides 0-10 Vdc output directly proportional to relative humidity and can be used with the T7350 Temperature/Humidity Controller.

APPLICATION

C7600B, H7655A Solid State Humidity Sensors senses the relative humidity level of an area and is used with any controller capable of processing a 0-10 Vdc or 2-10 Vdc signal.

SPECIFICATIONS

IMPORTANT

The specifications given in this publication do not include normal manufacturing tolerances. Therefore, an individual unit may not exactly match the listed specifications. Also, this product is tested and calibrated under closely controlled conditions and some minor differences in performance can be expected if those conditions are changed.

Models: C7600B, H7655A Solid State Humidity Sensors.
Provide a dc voltage output in direct proportion to the change in relative humidity.

Dimensions: See Fig. 1.

Case: Rugged, lightweight, compact plastic, easy to install.

Electrical Ratings:

Input: 16-40 Vdc or 16-30 Vac.

Output:

C7600B: 2-10 Vdc voltage signal; increases from 2 to 10 Vdc as humidity increases. Output voltage is directly proportional to relative humidity increase. See Fig. 2.

H7665A: 0-10 Vdc voltage signal; increases from 0 to 10 Vdc as humidity increases. Output voltage is directly proportional to relative humidity increase. See Fig. 3.

Maximum Power Consumption: 0.3 VA.

Mounting: Wall mount (directly to wall or standard outlet box).

Ambient Temperature Ranges:

Operating: 32°F to 125°F (0°C to 52°C).

Shipping: -40°F to +150°F (-40°C to +66°C).



SPECIFICATIONS (continued from page 1)

Humidity Range: 10 to 90 percent RH, noncondensing.

Humidity Accuracy:

From 30 to 70% RH: ± 5 percent RH.
 From 10 to 90% RH: ± 7 percent RH.

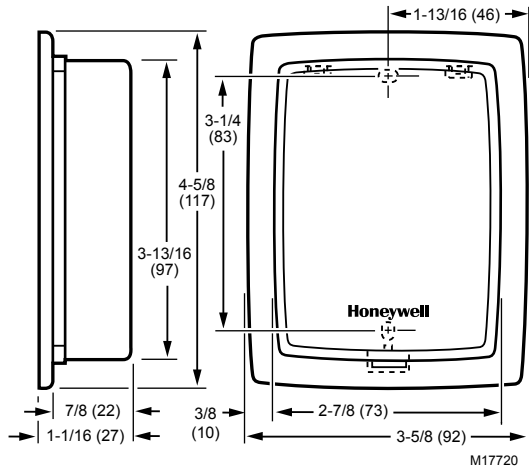


Fig. 1. C7600B, H7655A dimensions in in. (mm).

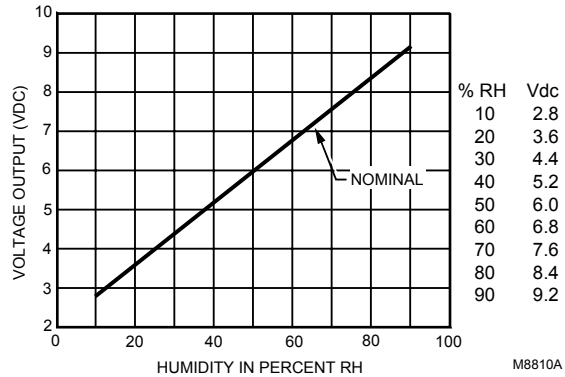


Fig. 2. C7600B nominal output voltage vs. relative humidity.

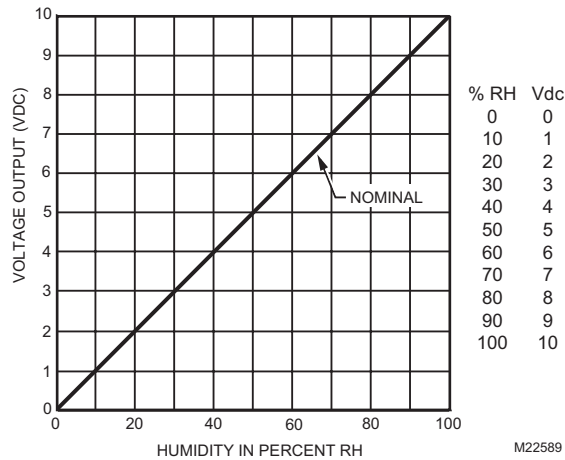


Fig. 3. H7655A nominal output voltage vs. relative humidity.

ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number.

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 Automation and Control Products Sales Office (check white pages of your phone directory).
2. Honeywell Customer Care
 1885 Douglas Drive North
 Minneapolis, Minnesota 55422-4386

In Canada—Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Scarborough, Ontario M1V 4Z9.

International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

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 ratings given in instructions and on the product to ensure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.

CAUTION

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

Location

The sensor can be installed directly on a wall or standard wall outlet box.

The sensor should be located away from traffic areas, on an inside wall, at least 3 ft (1m) from an outside wall and 54 in. (1.4m) from the floor.

Mounting

1. Loosen the cover locking screw and remove the cover.
2. Run wire to the selected location; thread wire through the semicircular hole in the wallplate; and make connections to the sensor (see the Wiring section).
3. Four mounting screws are provided, two self-tapping type for wall mounting and two for outlet box mounting. Select the proper screws for the application.
4. If air drafts occur through the wall opening, *eliminate* with suitable material.
5. Fasten the sensor on the wall or outlet box with screws through the wallplate mounting holes. See Fig. 4.
6. Replace the cover and tighten the cover locking screw.

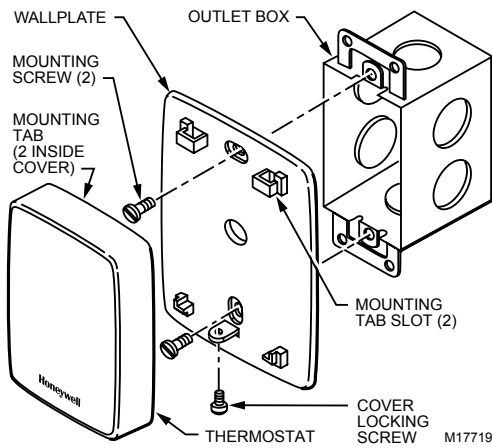


Fig. 4. Mounting the sensor on an outlet box.

Operation

C7600B

The sensor provides a 2 to 10 Vdc output signal directly proportional to the humidity of the air where the unit is mounted.

H7655A

The sensor provides a 0 to 10 Vdc output signal directly proportional to the humidity of the air where the unit is mounted.

WIRING

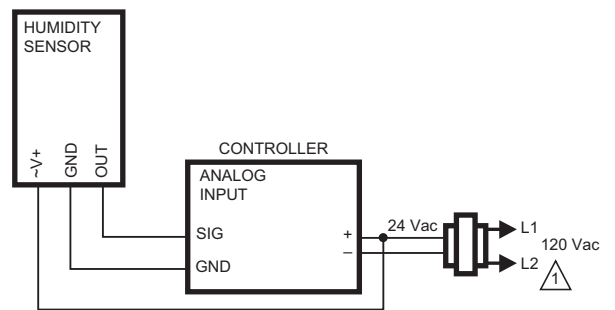
CAUTION

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.

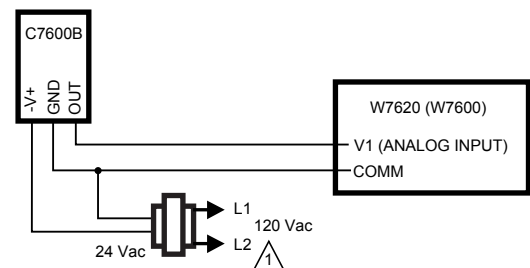
See Fig. 5 through 9 for wiring details. Wire input power (16 to 40 Vdc or 16 to 30 Vac) to V+ and GND terminals. Connect sensor output (OUT) and GND to a controller analog input as shown in Fig. 5 through 9.



 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

M2025E

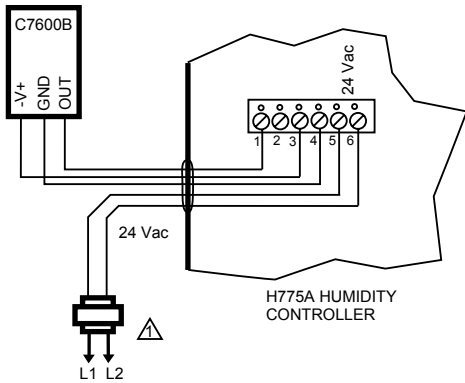
Fig. 5. C7600B, H7655A typical wiring.



 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

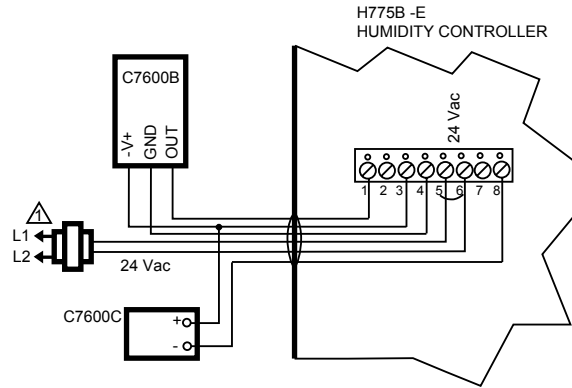
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Fig. 6. C7600B wiring to W7620.



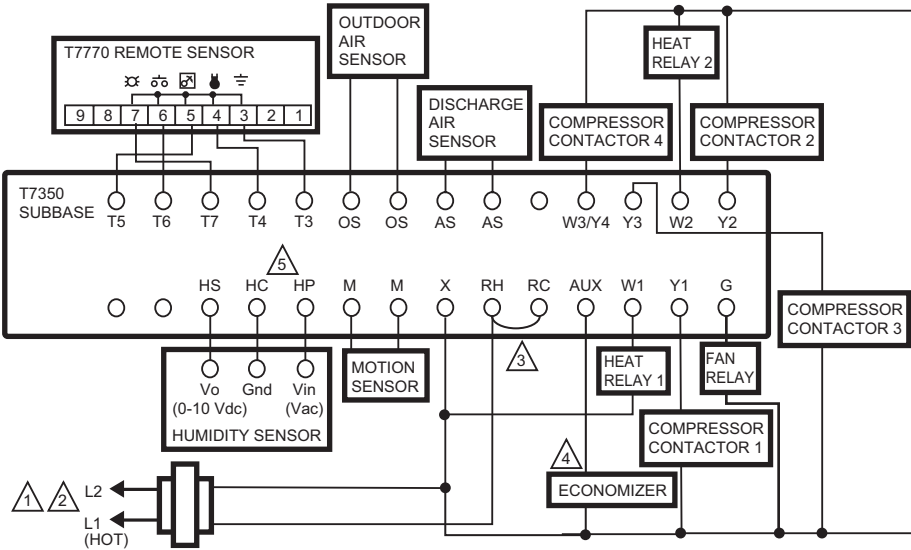
△ POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED. M5232B

Fig. 7. C7600B wiring to H775A.



△ POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED. M5231B

Fig. 8. C7600B wiring to H775B-E in two-sensor system with C7600C.



- △ 1 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- △ 2 ENSURE TRANSFORMER IS SIZED TO HANDLE THE LOAD.
- △ 3 HEAT/COOL SYSTEMS WITH ONE TRANSFORMER REQUIRE THE FACTORY-INSTALLED JUMPER.
- △ 4 USE ECONOMIZER INSTRUCTIONS FOR INSTALLATION DIRECTIONS.
- △ 5 HC AND HP PROVIDE 24 VAC TO THE HUMIDITY SENSOR.

M22529

Fig. 9. Humidity Sensor (0-10 Vdc output) wiring with T7350 (use with RH/Temperature combination T7350 units only).

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