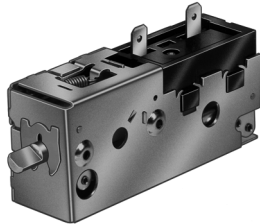




# H4600A,B; H6600B

## HUMIDITY CONTROLLERS

### PRODUCT DATA



H4600A End Shaft



H4600B Face Shaft

## APPLICATION

These humidity controllers provide automatic switching control of humidification or dehumidification equipment. They are typically used in appliance units such as portable humidifiers and dehumidifiers, furnace powered humidifiers, fan ventilation units, etc.

## FEATURE

- Long nylon ribbon sensing element provides high driving force to assure reliable operation, even under changing ambient temperature conditions.
- Sturdy steel case has corrosion resistant plating.
- Phenolic housing encloses the snapacting switch with 1/4 in. quick-connect terminals. Switch rated for line voltage and pilot operation.
- Shaft for adjusting the control point located on either the end or face of device.
- Positive ON and OFF setting positions permit manual operation of the controlled equipment.

## SPECIFICATIONS

### IMPORTANT

The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this unit may not match the listed specifications exactly. 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:

Model	System Control	Scale Range (RH)
H4600A	Dehumidifier	20-80%
H4600B	Humidifier	10-60%
H6600B	Humidifier	10-60%

### Electrical Ratings (A at 50/60 Hz):

	H4600A		H4600B	
	120 Vac	240 Vac	120 Vac	240 Vac
Full Load	10.0	5.0	4.4	2.2
Locked Rotor	45.0	22.5	26.4	13.2
Resistive	12.0	6.0	12.0	6.0
Pilot Duty	50 VA at 24 Vac to 240 Vac			

	H6600B	
	120 Vac	240 Vac
Full Load N.O. to C	4.4	2.2
Full Load N.C. to C	3.0	1.5
Locked Rotor N.O. to C	26.4	13.2
Locked Rotor N.C. to C	18.0	9.0
Resistive N.O. to C	12.0	6.0
Resistive N.C. to C	3.0	1.5
Pilot Duty	50 VA at 24 Vac to 240 Vac	

### Set Point Adjustment:

External flat shaft on end or face of control.



**Switching:**

Enclosed, snap acting.  
 H4600A-SPST makes on RH increase  
 H4600B-SPST makes on RH decrease  
 H6600B-SPDT makes N.C. to C on RH increase, N.O. to C on RH decrease.

**Type of Terminal Connection**

1/4 in. quick-connect.

**Sensing Element:**

Nylon ribbon.

**Differential:**

Nonadjustable, 4 to 6 percent RH.

**Operating Temperature Range:**

50 F to 125 F [10 C to 52 C].

**Shipping and Storage Temperature:**

Minus 30 F to plus 150 F [minus 34 C to plus 66 C].

**Mounting Means:**

Metal case and cover, each having two mounting holes that will accept No. 6 sheetmetal screws or self-tapping screws. Screw length limited on end shaft model. (See INSTALLATION information.)

**Dimensions:**

See Fig. 1.

**Underwriters Laboratories Inc. Component Recognized:**

File No. E 4436, Guide No. XA PX2.

**Canadian Standards Association Component Recognized:**

File No. LR60804-1, Class No. 4813 02.

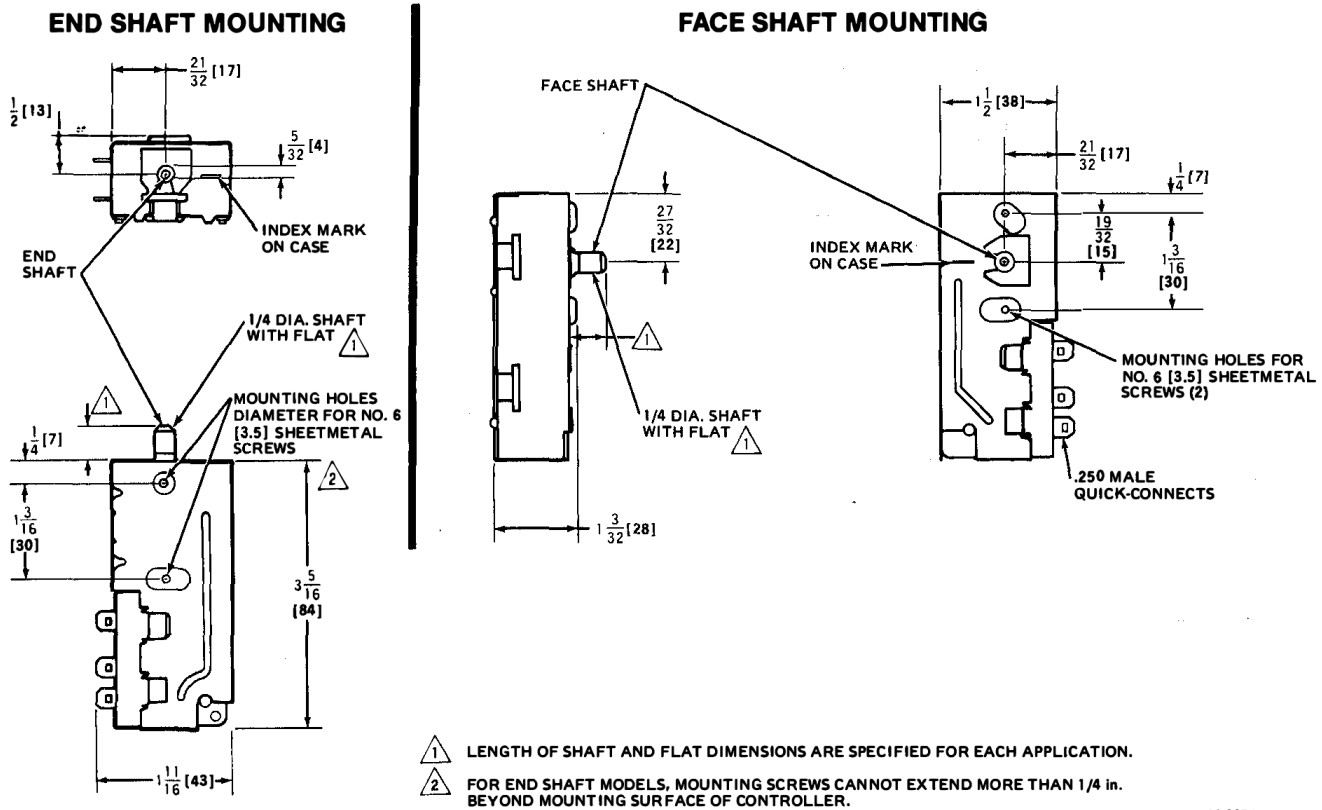


Fig. 1. Installation dimensions in in. [mm in brackets] for H4600, H6600.

**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**

Disconnect power supply before beginning installation to prevent electrical shock or equipment damage.

## Mounting

The H4600, H6600 mount in the intake airstream of a humidifier or dehumidifier. Do not mount in outlet air.

Mount to surface with two No. 6 sheetmetal screws or self-tapping screws through two holes in case. For end shaft models, mounting screws cannot extend more than 1/4 in. beyond the mounting surface of the controller.

## Wiring

All wiring must comply with local codes and ordinances.

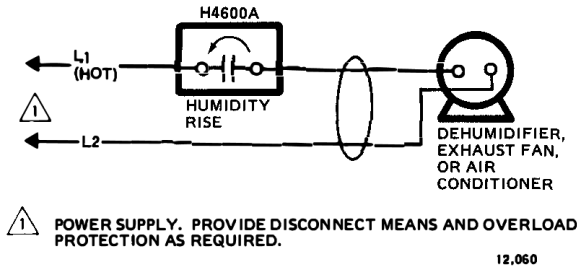


Fig. 2. Typical Wiring Diagram for H4600A.

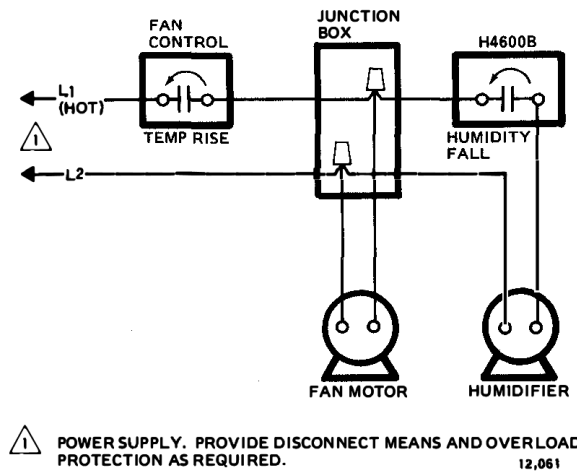


Fig. 3. Typical Wiring Diagram for H4600B with Single Speed Fan Motor.

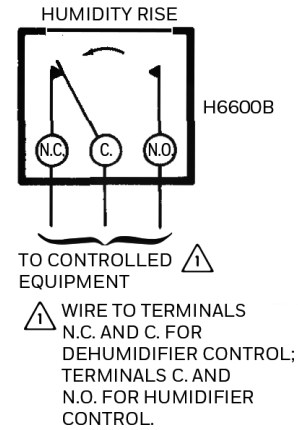




Fig. 4. H6600B Internal Schematic.

## OPERATION

### H4600A Dehumidifier Controllers

The H4600A switch makes contact on a relative humidity rise to the set point to start the dehumidifier. A decrease in relative humidity to the set point minus the differential breaks the switch contact to stop the dehumidifier.

Turn the control knob clockwise  to the setting stop to put the dehumidifier in the ON position. Set to the OFF position by turning the control knob counterclockwise  to the stop.

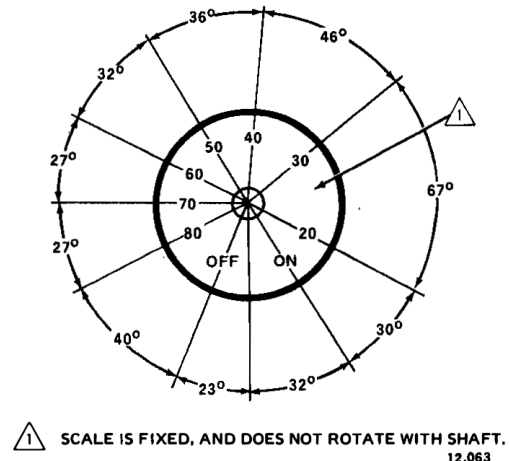


Fig. 5. H4600A stationary scaleplate layout. Index mark on knob rotates with adjustment shaft.

## H4600B Humidity Controllers

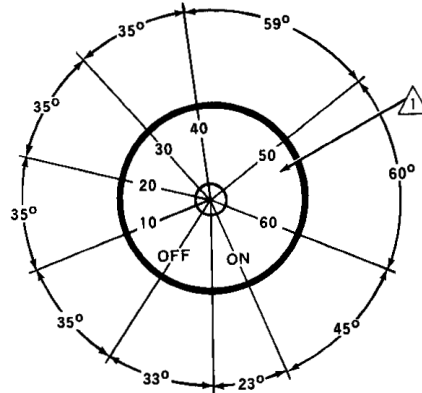
The H4600B switch makes contact on a humidity fall to the set point minus the differential. In most humidifier systems, the furnace fan must be operating before humidifier starts. An increase in humidity to the set point breaks the switch contacts. (In room humidifiers, the fan and humidifier operate together.)

Turn control knob clockwise ↻ to the stop for ON position. Set to the OFF position by turning the control knob counterclockwise ↻ to the stop.

## H6600B SPDT Controllers

The H6600B controllers are used in humidity control systems requiring spdt switching. The switch makes terminals N.C. and C. on a rise in humidity and terminals C. and N.O. on a fall in humidity.

Turning the control knob counterclockwise ↻ to the stop will cause the switch (terminals C. and N.C.) to make, turning on the dehumidifier. Turning the switch clockwise ↻ to the stop will cause the switch (terminals C. to N.O.) to make, turning on the humidifier.



 SCALE IS FIXED, AND DOES NOT ROTATE WITH SHAFT.  
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**Fig. 6. H4600B and H6600B stationary scaleplate layout. Index mark on knob rotates with adjustment shaft.**

## CHECKOUT

Place the system in operation and observe through at least one complete cycle to make certain all components are functioning properly.