

## W42AA Type Low or Line Voltage Humidistat

### Application

The W42AA humidistat controls humidifying or dehumidifying equipment, or both. The humidistat is a 3-wire device with single-pole, double-throw, snap-acting contacts.

A typical W42 application is for operating an exhaust fan in electrically heated homes. The humidistat automatically operates the exhaust fan to reduce the relative humidity when it is above normal. Other typical applications include humidity control in fruit storage rooms, curing rooms and hospitals where accuracy and reliability are required.

**All series W42 humidistats are designed for use *only* as operating controls. Where an operating control failure would result in personal injury and/or loss of property, it is the responsibility of the installer to add devices (safety, limit controls) or systems (alarm, supervisory systems) that protect against, or warn of, control failure.**

### Features

- Three-wire SPDT switch permits control of humidifying or dehumidifying equipment or both with one control
- Stable and accurate human hair sensing element
- Easy to read dial is adjustable over a range of 10 to 90% RH
- Concealed dial lock screw for sealed setting
- Separable mounting plate with mounting screws attached, saving installation time.
- Attractive contemporary styling

### General Description

The W42AA humidistat provides single pole, double-throw control for use on low or line voltage applications.

The humidistat's terminals are marked for easy wiring. The "C" terminal is common. The circuit between "C" and "L" terminals closes on a decrease in relative humidity. The circuit between "C" and "H" terminals closes on an increase in relative humidity.



**Fig. 1 -- W42AA Humidistat**

The humidistat's sensing element consists of approximately 150 strands of carefully selected and processed human hair -- proven to be the most sensitive and stable material known for humidity control. An exclusive tension release device keeps the hair strands from being damaged by extreme humidity or mechanical strain. The sensing element is mounted vertically to minimize surface contamination by dust or foreign material.

The humidistat mounts on a standard outlet box or directly to a flat surface where permitted by electrical codes.

### Specifications

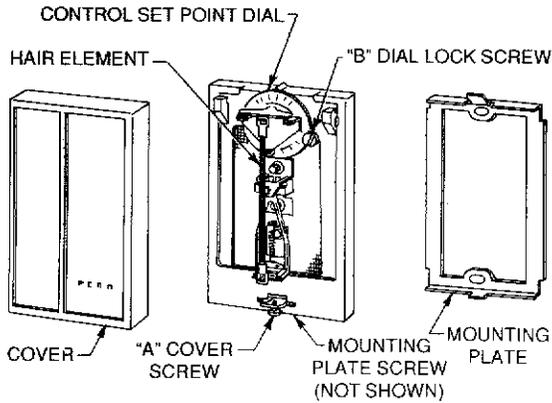
<b>Type</b>	<b>W42AA</b>	Low or Line Voltage Humidistat
<b>Range</b>		10 to 90% RH
<b>Differential</b>		4% RH
<b>Maximum Operating Ambient Temperature</b>		100°F (38°C)
<b>Contact Action</b>		SPDT
<b>Electrical Rating Pilot Duty Only</b>		125 VA at 120/240 VAC
<b>Material</b>	<b>Base</b>	Molded Thermosetting Plastic
	<b>Cover</b>	Metal Cover With Ivory Enamel Finish
<b>Packaging</b>		Individual Pack In Reshippable Corrugated Carton
<b>Shipping Weight</b>	<b>Individual Pack</b>	0.6 lb (0.3 kg)
	<b>Overpack of 20</b>	14 lb (6.4 kg)

### Repairs and Replacement

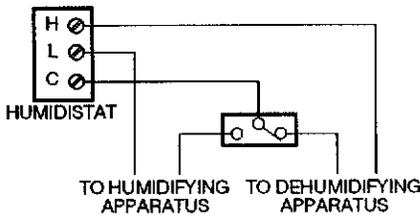
Field repairs must not be made. For a replacement humidistat, contact the nearest Johnson Controls wholesaler.

### Ordering Information

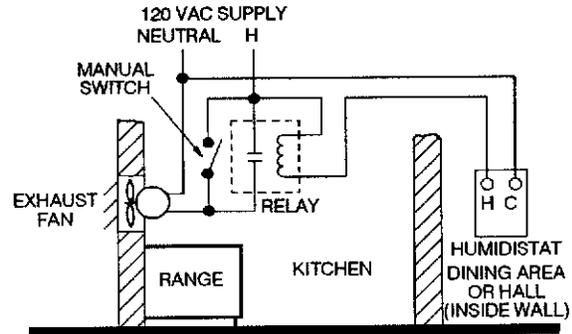
To order, specify W42AA.



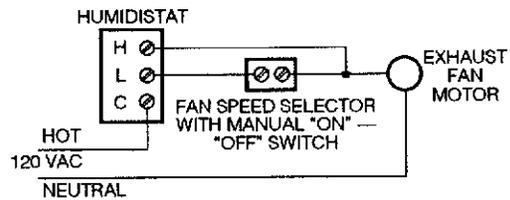
**Fig. 2 —** Line drawing illustrating method of mounting humidistat. Note dial lock screw.



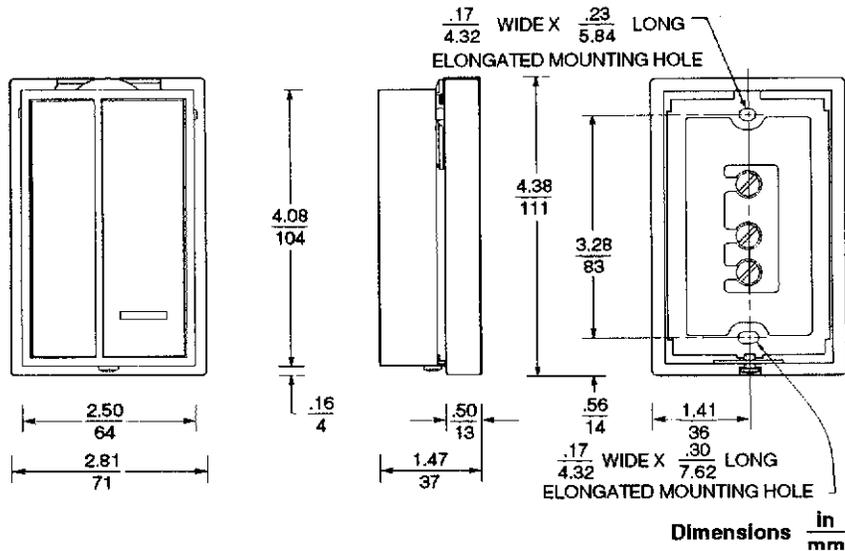
**Fig. 4 —** Typical wiring diagram for dehumidification and humidification equipment with selector switch.



**Fig. 3 —** Typical wiring diagram of Humidistat to control humidity in homes during heating season by automatic control of exhaust fan.



**Fig. 5 —** Typical wiring diagram of the W42AA automatically operating on exhaust fan at full speed to control excessive humidity. A combination speed control and "On — Off" switch permits manual operation of exhaust fan at selected speeds.



*Performance specifications appearing herein are nominal and are subject to accepted manufacturing tolerances and application variables.*

**JOHNSON  
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