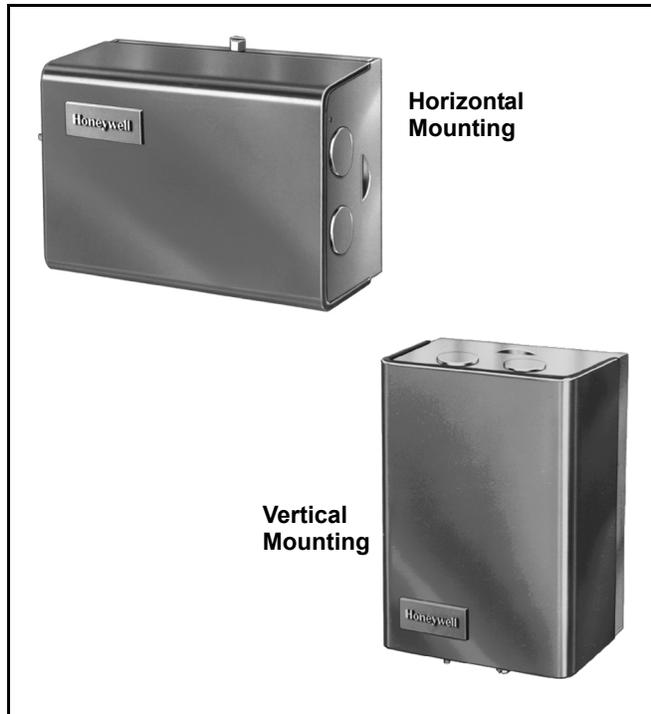


## L8148A,E,J Aquastat® Relays

### PRODUCT DATA



### APPLICATION

The L8148 Aquastat® Relays are immersion type hydronic controllers that combine high limit protection with switching relay control of burner and circulator motors.

### FEATURES

- All models are used with a 24 Vac thermostat.
- Models include special terminals for adding remote, low limit temperature control.
- L8148E,J have terminals for adding zone valve system wiring.
- L8148E models are available with plug for connecting Aquastat® Relay directly to D892/M892 Vent Dampers.
- All devices include transformer to provide power for the low voltage control circuit. Different models provide switching of line, low, or millivoltage burner circuit.
- Case available for horizontal or vertical mounting.
- Combinations of two insulation and two insertion well lengths are available.

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## SPECIFICATIONS

### IMPORTANT

The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this 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.

### TRADELINE® Models

TRADELINE® models are selected and packaged for ease of handling, ease of stocking, and maximum replacement value. TRADELINE® model specifications are the same as those of standard models except as noted below.

#### TRADELINE® Models Available:

- L8148A Aquastat™ Relay, without zone control terminals, without well and spud. See Fig. 2.
- L8148E Aquastat™ Relay with Molex® plug for use with D892/M892 Vent Dampers; 180°F to 240°F (82°C to 116°C) scale range; without well and spud.
- L8148J Aquastat™ Relay with zone control terminals; without well and spud. See Fig. 3.

**Scale Range:** 140°F to 240°F (60°C to 116°C).

#### Additional Features:

- Heat-conductive compound for better bulb response in oversized well. For more information on heat-conductive compound, see Material Safety Data Sheet (MSDS), form 69-0955.
- Case can be vertically or horizontally mounted.
- High-limit dial stop is factory-set at end of high-limit scale; can be adjusted.
- TRADELINE® pack with cross reference label and special instructions.

### Standard Models

**Models:** See Table 2.

### Electrical Ratings:

**Table 1. Circulator Control Circuit (Amperes).**

Type	120 Vac	240 Vac
Full Load	7.4	3.7
Locked Rotor	44.4	22.7

Voltage and Frequency: 120 Vac, 60 Hz.

Burner Control Circuits:

Line Voltage: Ratings same as for circulator above.

Low Voltage: 0.8A maximum at 24 Vac.

Millivoltage: 0.25A at 1/4 to 12 Vdc.

#### Approvals:

Underwriters Laboratories Inc. Listed: File No. MP466, Guide No. MBPR (models with well); Guide No. MBPR2 (models without well).

Canadian Standards Association Certified: File No. LR1620, Guide No. 400-E-O.

ANSI Miswiring: Models with 1/4 in. tab terminal meet ANSI Appliance Miswiring Standard.

#### Immersion Well Dimensions:

Brass Spud for Boiler Fitting: 1/2 or 3/4 NPT.

Insulation Depth: 1-1/2 or 3 in. (38 or 76 mm).

NOTE: Not all models include wells. If well is not included but is needed, refer to form 68-0040 to order.

**Insertion Length:** 3-3/8 in. (86 mm).

#### Maximum Pressure On Immersion Well:

255 psi (1758 kPa).

#### Maximum Bulb Temperature:

40°F higher than setpoint, or up to 265°F (23°C higher than setpoint, or up to 129°C).

**Material Safety Data Sheets (MSDS):** For more information on heat-conductive compound, see form 69-0955.

#### Maximum Ambient Temperature:

150°F (66°C) with 1.2A, 24V load.

77°F (25°C) with 1.4A, 24V load.

## 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 Home and Building Control Sales Office (check white pages of your phone directory).
2. Home and Building Control Customer Relations  
Honeywell, 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.

Table 2. Standard L8148 Model Specifications.

Model Number	Burner Circuit Voltage	Mounting Case <sup>a</sup>	Special Provision for Adding Remote Low Limit	High Limit	Second Limit	Circulator Control	Maximum Number of Zone Controls		Thermostat Required	Manual/ Auto Switch
							Valves <sup>b</sup>	Relays <sup>c</sup>		
L8148A	Line	Horizontal	Yes	Yes	No	Can be added remotely	—	—	24V	No
L8148E <sup>d,e</sup>	Low	Vertical					2	4		
L8148J	Low or millivolt	Vertical or horizontal					Yes			

<sup>a</sup> See Fig. 1 for case dimensions.

<sup>b</sup> Number of V8043 Zone Valves that can be powered from the L8148 without additional transformer(s). 1.2A load is the maximum permissible when ambient temperature exceeds 77°F (25°C).

<sup>c</sup> Number of R8230C Relays that can be powered from the L8148. Additional relays in groups of four or fewer require an additional transformer.

<sup>d</sup> Models available with plug for connecting L8148E directly to the D892/M892 Vent Dampers.

<sup>e</sup> Models available with plug (L8148E) and 50 VA transformer are for use with the Honeywell SV9500/SV9600 SmartValve® System Control. No zone valves or relays can be powered from the L8148 when used with SV9500/SV9600 gas valves.

**Maximum Ambient Temperature:**

150°F (66°C) with 1.2A 24V load;  
77°F (25°C) with 1.4A 24V load.

**Thermostat Heat Anticipator Setting:** 0.2A.

**Standard Scale Range:** 180°F to 240°F (82°C to 116°C).

**Differential:** Nonadjustable.

**Finish:** Gray enamel.

**Optional Specifications:**

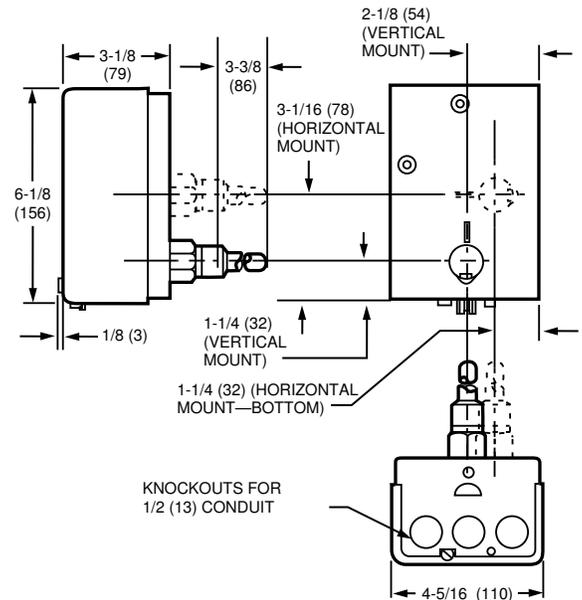
Scale Range: 140°F to 240°F (60°C to 116°C).  
High Limit Dial Stop.

**Case Dimensions:** See Fig. 1.

**Accessories:**

107408 Heat Conductive Compound (4 oz. can). For more information, see form 69-0955, Heat Conductive Compound.

124904 Well Adapter. For ordering information, see form 68-0040, Immersion Wells and Compression Fittings.



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Fig. 1. L8148 dimensions in in. (mm).