

L8100A,B,C Aquastat® Controllers

PRODUCT DATA



GENERAL

L8100A,B, and C are immersion type controllers for regulating and limiting the tank temperature in water heaters. As the water temperature rises past the setpoint, the controller switches off the gas valve.

FEATURES

- L8100A regulates tank temperature and provides energy cutoff (ECO) action on a temperature rise past the setpoint.
- L8100B regulates temperature and provides ECO action on a temperature rise past the setpoint. This model includes a second sensing element that senses average water temperature to minimize stacking.
- L8100C includes a second sensing element that senses average water temperature to minimize stacking, but does not include ECO action.
- Fluid filled element operates single pole single throw (spst) snap-acting Micro Switch™.
- Energy cutoff (ECO) switch enclosed in factory installed well of L8100A,B interrupts the thermocouple circuit or main valve before the tank reaches maximum temperature of 210°F (99°C).
- Internal adjustment screw.
- Immersion well is factory installed to the controller.
- Special switch terminal provides three-wire hookup from Aquastat® controller to gas valve.
- Four terminal models for manual reset with S86/VR8204/VR8440.

Contents

General	1
Features	1
Specifications	2
Ordering Information	2
Installation	3
Operation and Checkout	8



SPECIFICATIONS

IMPORTANT

The specifications given in this publications 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 when those conditions are changed.

Models:

- L8100A Aquastat® Controller. Regulates water temperature. Includes energy cutoff (ECO) switch that breaks controller circuit on a temperature rise above the setpoint.
- L8100B Aquastat® Controller. Regulates water temperature. Has a second sensing bulb that minimizes stacking by sensing the average tank temperature. Includes ECO switch which breaks controller circuit on a temperature rise above the setpoint.
- L8100C Aquastat® Controller. Regulates water temperature. Has a second sensing bulb that minimizes stacking by sensing the average tank temperature.

Electrical Ratings:

2A maximum at 24 Vac.

Differential:

Fixed, 5°F (3°C) for controller: 20°F (11°C) for ECO switch.

Maximum Tank Temperature:

210°F (99°C).

Temperature Range:

- L8100A: 100°F to 240°F (38°C to 116°C) with factory set stop to prevent setting above 160°F (71°C).
- L8100B,C: 100°F to 180°F (38°C to 82°C).

Pressure Rating:

255 psi (1758 kPa).

Sensing Bulb:

Liquid (toluene) filled; 3/8 in. (10 mm) capsule.

Immersion Well:

1/2 in. (13 mm) or 3/4 in. (19 mm) NPT. See Fig. 2 for dimensions. All zinc plated except L8100B1094 and L8100B1185.

Capillary Length (for Remote Bulb):

24-5/8, 30, 39, 42, or 54 in. (625, 762, 991, 1067, or 1372 mm).

Insertion Depth:

See Fig. 2.

Insulation Depth:

See Fig. 2.

Finish:

Gray.

Dimensions:

See Fig. 1 for controller dimensions; see Fig. 2 for immersion well dimensions.

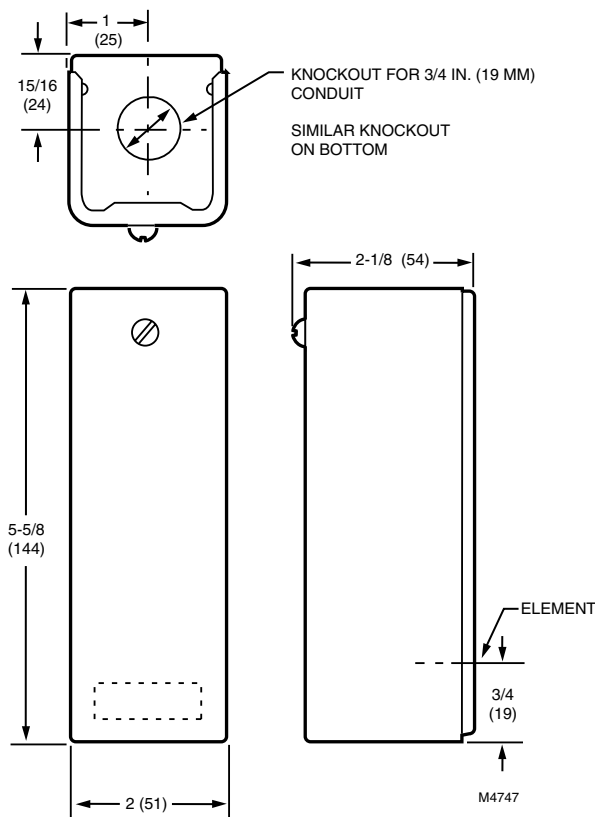


Fig. 1. Approximate dimensions of the L8100 Aquastat® Controller in in. (mm).

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, or specify:

1. Model number.
2. Application.

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 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
Golden Valley, Minnesota 55422-4386

In Canada—Honeywell Limited/Limitee, 35 Dynamic Drive, Scarborough, Ontario M1V 4Z9. International Sales and Service offices in all principal cities of the world.