

# V100P, Y100P Radiator Valve

## FOR ONE-PIPE STEAM SYSTEMS

### INSTALLATION INSTRUCTIONS

## DESCRIPTION

The V100P Radiator Valve is designed to automatically control temperatures of one-pipe low pressure steam radiators, convectors, or other heating units. Install the V100P Radiator Valve with a T100 Thermostatic Control and an SA123A (or equivalent) steam/air vent (see Fig. 1). The Y100P includes the V100P Valve and the SA123A Steam/Air Vent. V100P Radiator Valves are cast bronze, with nickel plating. The working parts are designed as an easily replaceable cartridge. A resilient seat disk provides positive shut-off.

## SPECIFICATIONS

### Valve

**Maximum Temperature:**  
248°F (120°C).

**Maximum Pressure:**  
15 psi (103 kPa).

**Size:**  
1/8 in. angle body only.

### SA123A Steam/Air Vent

**Vent Port:**  
1/16 in.

**Maximum Operating Pressure:**  
6 psi (41 kPa).

**Height:**  
3-3/4 in.

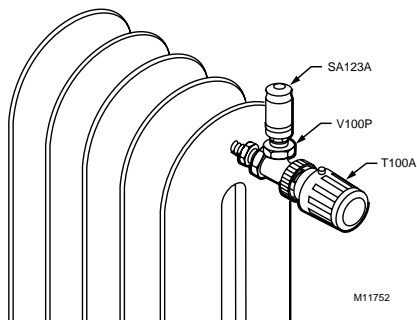


Fig. 1. Mounted V100P Valve, SA123A Steam/Air Vent, and T100A Controller.

## OPERATION

The V100P Radiator Valve works in conjunction with an SA123A (or equivalent) steam/air vent (see Fig. 1). During a call for heat, the valve opens, allowing air to vent from the radiator. This, in turn, allows steam to flow into the radiator. When the space temperature reaches the setpoint, the valve closes, preventing air from venting. When the valve is closed, the radiator cools. The control has a modulating rather than an on/off action to minimize room temperature changes.



The V100P is only one component of a one-pipe steam conversion. Full conversion requires additional components. For proper temperature control, Honeywell recommends the following system modifications in addition to the V100P:

1. A boiler interval timer to provide proper boiler cycling.
2. Vacuum breakers on the supply piping, or on the individual radiators to allow air to enter during the boiler off cycles. Air entry is required to ensure optimum control.

## INSTALLATION

Install V100P Radiator Valves on the vent connection tapping of a radiator or convector. Use thread sealant on all connections.

1. Remove old steam/air vent from radiator or convector.
2. Screw in 1/8 in. male fitting and V100P Valve.

NOTE: The V100P requires horizontal positioning, or use of a controller with a remote sensor.

3. Install steam/air vent into V100P.

### IMPORTANT

*Mount the vent vertically.*

4. Install T100 series operator using instructions included with the unit.
5. Set control to desired setpoint. Valve automatically controls steam flow to maintain temperature.

## CHECKOUT

If radiator fails to heat:

1. Check that the boiler interval timer is installed and operating.
2. Check that the vacuum breakers are installed and operating.
3. Check for proper venting of air:
  - a. Turn control setpoint to the highest number.
  - b. If no air is released, turn the control setpoint to minimum and remove the vent.
  - c. Check for adequate pressure by slowly turning the control toward maximum. Steam flow through the vent port verifies adequate pressure. Turn setpoint to minimum.
  - d. If steam flows through the vent port, repair or replace vent.
  - e. If steam does not flow through the vent port, check for blockage in the valve body, cartridge and the piping.

NOTE: See controller Installation Instructions for additional troubleshooting procedures.

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