

# V5852A, V5853A, V5862A, V5863A Cartridge Globe Valves

## INSTALLATION INSTRUCTIONS

### 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 ratings given in instructions and on the product to ensure 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.
5. Do not use Series 3000 actuators on 1/2 in. or 3/4 in. valves.

### **!** WARNING

**Severe Scalding Hazard.**  
Contact with hot liquid can lead to severe injury or cause death.

For a pressurized valve, only open with Valve Cartridge Replacement Tool. For complete safety, release system pressure to the valve body before changing cartridge.

### **!** CAUTION

**Sweat Valve Damage Hazard.**  
Soldering the valve with the cartridge in place can damage the device.

Prior to attaching valve to piping, remove cartridge from potential exposure to heat.

#### IMPORTANT

- Before installing the valve, use the protective cover/manual handle to ensure the valve stem operates freely. Impaired stem operation can indicate a bent stem (due to rough handling). This condition can require replacing the valve.
- When installing valves, make sure the flow direction is correct by checking the arrow on the valve body.
- Mount the valve only with the stem pointing upward.
- Leave the protective cover in place until ready to attach the actuator.

#### Location

Select a location where the valve and actuator are accessible.

#### IMPORTANT

Mount all 1/2 in. and 3/4 in. valves in return flow. When delta p-values exceed 8.70 psi (60 kPa), noise can develop.

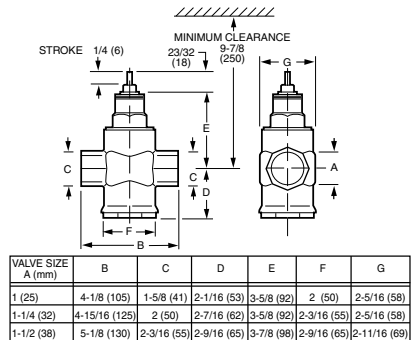
#### Mounting

The valve body should be completely installed in the pipe line before the actuator is installed.

#### IMPORTANT

The insert is packed separately from the 1/2 in. and 3/4 in. V5852, V5853 Sweat Valves. The valve must be installed and soldered before installing the insert in the valve. Torque insert between 27 and 44 in.-lb.

1. Verify pipe size and flow direction for the valve being used.
2. Position the valve for easy actuator installation.
3. Install the valve using the applicable tools and supplies (wrenches, solder, flux, torch or soldering iron). Follow standard practices.



#### FLOW DIAGRAM

FOR 1, 1-1/4 AND 1-1/2 INCH VALVES

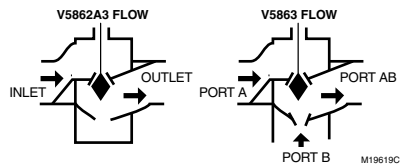


Fig. 1. Dimensions of Series 3000 V5862A and V5863A Valves in in. (mm).



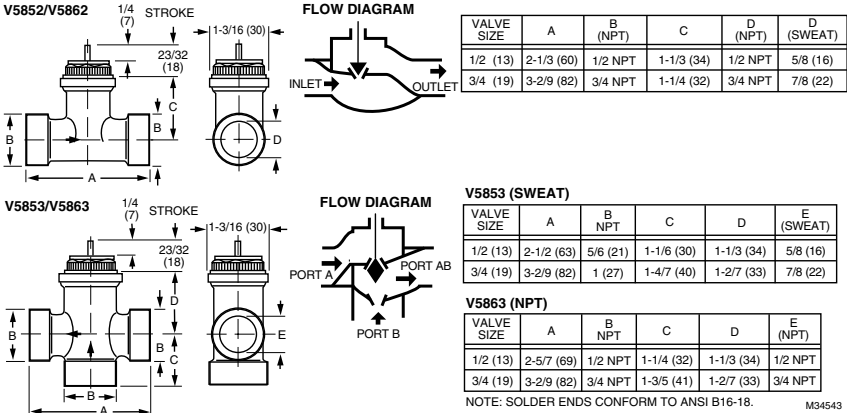


Fig. 2. Dimensions of Series 1000 and 2000 V5852A, V5853A, V5862A and V5863A Valves in in. (mm).

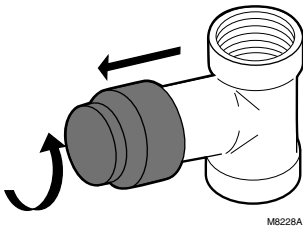


Fig. 3. Removing protective cover from valve.

## OPERATION

The valves are supplied with a threaded plastic protective cover/manual handle to protect the stem and to allow for manual operation. Use the protective cover/manual handle to fill the system during initial installation.

Turning the protective cover/manual handle:

- Clockwise: pushes the center stem of the valve down, compressing the valve spring and closing the valve.
- Counterclockwise: allows the spring to expand, pushing the center stem up and opening the valve.

### NOTES:

- You can also use the protective cover/handle for heating/cooling with neither a controller nor actuator during building construction.
- Retain the protective cover. It can be needed for future manual operation.

## Two-Way Valve Flow

In the two-way valves, the direction of flow is always from inlet port to outlet port as indicated by the arrows on the valve body (see Fig. 4).

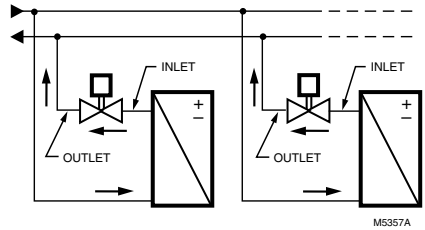


Fig. 4. Two-way valve operation block diagram.

## Three-Way Valve Flow

Three-way valves are designed as mixing valves. This means that port AB is total flow outlet; port A is controlled flow inlet; and port B is bypass inlet (see Fig. 5).

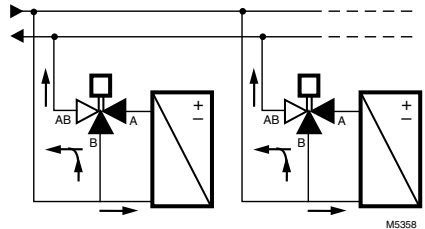


Fig. 5. Three-way valve operation block diagram.

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## Automation and Control Solutions

Honeywell International Inc.  
1985 Douglas Drive North  
Golden Valley, MN 55422  
customer.honeywell.com

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