

## HV Series Valves

Outstanding performance. Unmatched durability.

### Features

#### Reliability

- Eccentric diaphragm for smooth closing, less water hammer
- Glass-filled polypropylene body for strength
- Reverse flow normally closed design
- Single-filtered pilot flow for maximum reliability
- Trouble-free service with few parts
- Buna-N diaphragm with self-cleaning 90-mesh (200 micron) pilot water filter and stainless steel spring

#### Versatility

- Compact design, 2.54" spin radius for tight installations
- Operates in low-flow and Xerigation® applications when the RBY filter is installed upstream
- Available in multiple fitting types
- External bleed to manually flush system of dirt and debris during installation and system start-up
- Internal bleed for spray-free manual operation
- Unique, easy-to-turn, pressure-assisted flow control mechanism (HVF models only)

#### Ease of Service

- Captive multi-drive screws for easier maintenance
- Your choice of tools to open valve (nut driver, Phillips head screwdriver, slotted head screwdriver)
- Quick access to diaphragm with only four screws
- Diaphragm locating post for reliable service



100-HV

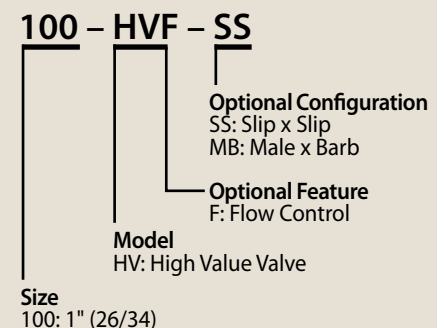
100-HV-MB

100-HV-SS

### Operating Range

- **Pressure:** 15 to 150 psi (1,0 to 10,3 bar)
- **Flow:** 0.2 to 30 gpm (0,05 to 6,82 m<sup>3</sup>/h; 0,01 to 1,89 l/s); for flows below 3 gph (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Xerigation® application, use RBY-100-200MX filter installed upstream
- **Temperature:** water temperature up to 110°F (43°C); ambient temperature up to 125°F (52°C)

### How to Specify



*Note: For non-U.S. applications it is necessary to specify NPT or BSP thread type (1" only)*

## HV Series

High Value Valve. High Performance. Big Savings.

### Features

- Patented, eccentric, balanced pressure, Buna-N diaphragm with self-cleaning 90-mesh (200 micron) pilot water filter and captured stainless steel spring – Eccentric design provides smoother closing, less water hammer
- Only four durable, captured multi-drive bonnet screws that come out with half the number of turns for fast and easy servicing – at least twice as fast as the competition
- Glass-filled polypropylene body for strength (slip by slip model bodies are PVC)
- All popular model configurations available
- Compact design, 2.54" spin radius for tight installations
- Reverse flow, normally closed design
- External bleed to manually flush system of dirt and debris during installation and system start-up
- Internal bleed for spray-free manual operation
- Operates in low-flow and Landscape Drip applications when a 200 mesh filter is installed upstream

### Specifications

- Pressure: 15 to 150 PSI (1,0 to 10,3 bar)
- Flow: 0.2 to 30 GPM (0,05 to 6,82 m<sup>3</sup>/h; 0,01 to 1,89 l/s); for flows below 3 GPM (0,68 m<sup>3</sup>/h; 0,19 l/s) or any Landscape Drip application, use a 200 mesh filter installed upstream
- Operating Temperatures: Water temperature up to 110° F (43° C); ambient temperature up to 125° F (52° C)
- 24 VAC 50/60 Hz (cycles/sec.) solenoid
- Inrush current: 0.290A at 50/60 Hz
- Holding current: 0.091A at 50/60 Hz
- Solenoid Coil resistance: 70-85 Ohms (40° F - 110° F)



HV Valve Pressure Loss (psi)		
Flow gpm	1" HV psi	1" HV-MB psi
1	1.57	1.73
3	2.07	2.03
5	2.38	2.25
10	3.33	2.80
20	4.59	4.45
30	6.14	7.85

HV Valve Pressure Loss (bar)			METRIC
Flow m <sup>3</sup> /h	l/m	1" HV bar	1" HV-MB bar
0.25	4.17	0.11	0.12
0.75	12.50	0.14	0.14
1.00	16.67	0.16	0.16
2.00	33.34	0.23	0.19
5.00	83.35	0.32	0.31
7.50	125.03	0.42	0.94

\* Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.3 m/s) in order to reduce the effects of water hammer

### Dimensions

- Height: 4.62" (11.7 cm)
- Height (F): 5.62" (14.3 cm)
- Height (MB): 4.50" (11.4 cm)
- Length: 4.4" (11.2 cm)
- Length (MB): 5.68" (14.4 cm)
- Width: 3.1" (7.9 cm)

### Models

- 100-HV-NPT: 1" NPT female x female\*
- 100-HV-SS: 1" slip x slip
- 100-HV-MB: 1" male x barb
- 100-HVF-SS: 1" slip x slip

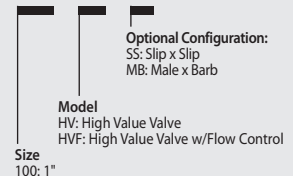
\* Available with BSP threads. Also available with 9V DC Latching Solenoid.

### Recommendations

1. Rain Bird recommends flow rates that result in discharge velocities in the supply line not to exceed 7.5 ft/sec (2.3 m/s) in order to reduce the effects of water hammer.
2. Rain Bird residential valves cannot be used with PRS pressure regulating modules.
3. **Not recommended for use with two-wire systems.**

### How to Specify

100 - HV - SS



Note: For non-U.S. applications it is necessary to specify NPT or BSP thread type (1" only)

## Electrical Specification

- 24 VAC 50/60 HZ Solenoid
- **Maximum Inrush Current:**  
0.290 Amps @ 60HZ
- **Holding Current:** 0.091 Amps @ 60HZ
- **Coil Resistance:** 70 to 85 Ohms  
(40° F – 110° F)

## Dimensions

- Height: 4.62" (11,7 cm)
- Height (MB): 4.50" (11,43 cm)
- Length: 4.4" (11,2 cm)
- Length (MB): 5.68" (14,4 cm)
- Width: 3.1" (7,9 cm)

## Models

- 100-HV-NPT           • 100-HVF-NPT
- 100-HV-SS           • 100-HVF-SS
- 100-HV-MB           • 1100-HVF-BSP
- 1100-HV-BSP
- 1100-HV-BSP-MxM

## Specifications

### Electrical Remote Control Valve

The valve shall be normally closed 24 VAC 50/60 Hz solenoid actuated, balanced pressure type capable of a flow rate of 30 GPM (6,82 m<sup>3</sup>/h; 1,89 l/s) with a pressure loss not to exceed \_\_\_\_\_.

The valve pressure rating shall not be less than 150 psi (10,3 bars). The valve body and bonnet shall be constructed of high impact

weather resistant plastic, stainless steel and other chemical/UV resistant materials. The valve shall have a diaphragm constructed of durable Buna-N rubber material with a clog resistant metering orifice. The valve shall have one 90-mesh (200 micron) pilot filter attached to the diaphragm. The valve shall have one fully encapsulated solenoid with captured plunger.

The valve body shall be a 1" globe configuration (26/34) with a \_\_\_\_\_ inlet and \_\_\_\_\_ outlet.

The valve shall be actuated by a low power 0.29 A (7.0 VA) inrush current and 0.09 A (2.2 VA) holding current. The valve shall be capable of on/off control by turning the solenoid ¼ turn. The valve shall provide a flush mode that is manually activated by ½ turn of the bleed screw where external porting is permissible.

The valve shall be of a threaded bonnet design and provide for all internal parts to be removable from the top of the valve without disturbing the valve installation.

The diaphragm shall be a drop-in design which can be installed into the valve body with no special alignment tab.

### Optional Feature Specification

When so indicated on the design, the HVF valve shall have all the specifications of the HV Series remote control valve, plus a unique, easy-to-turn, pressure-assisted flow control mechanism.

The remote control valve shall be manufactured by Rain Bird Corporation, Glendora, California.

### HV and HVF Valve Pressure Loss (psi)

Flow (gpm)	1" HV (psi)	Male x Barb (psi)
1	1.57	1.73
3	2.07	2.03
5	2.38	2.25
10	3.33	2.80
20	4.59	4.45
30	6.14	7.85
40	8.23	13.68

### Valve Pressure Loss (bar) METRIC

Flow (m <sup>3</sup> /h)	Flow (l/s)	1" HV (bar)	Male x Barb (bar)
0,25	0,06	0,11	0,12
0,75	0,21	0,14	0,14
1,00	0,28	0,16	0,16
2,00	0,56	0,23	0,19
5,00	1,39	0,32	0,31
7,50	2,08	0,42	0,54
9,10	2,52	0,57	0,94

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