



"I've installed other valves, but the reliability didn't come close to Rain Bird® DV Valves. That's why over the last 15 years we've installed DV Valves exclusively, because I won't risk my reputation on anything else."

*Joe DiBlasi, Sr.
JKJ Lawn Sprinkler Inc.*

Major Products

Primary Applications	DV	DVF	ASVF	JTV	JTVF	PGA	PEB	PESB/PESB-R	GB-R	EFB-CP-R	BPE	BPES	QC
Manual Bleed	I/E	I/E	I/E	I/E	I/E	I	I/E	I/E	I/E	I/E	E	E	
Flow Control		●	●		●	●	●	●	●	●	●	●	
Bottom Inlet	DV-A	DVF-A	●			●					●	●	●
Low Flow	●	●	●	●	●		●	●	●	●			
PRS-Dial Compatible						●	●	●	●	●	●	●	
Dirty Water								●		●		●	
Non-Potable Water						●	●	●	●	●	●	●	●
Sites Requiring Brass									●	●	●	●	●
Sites Requiring Plastic	●	●	●	●	●	●	●	●					
Decoder System Compatible						●	●	●	●	●	●	●	

- DV/DVF available in globe, angle, slip x slip, and male x barb configurations.
- Flows below 3 gpm (0.68 m³/h; 0.19 l/s) install RBY filter upstream.
- I/E = Internal/External
- JTV/JTVF available in globe, slip x slip and male x barb configurations.
- The PESB-R, GB-R and EFB-CP-R are specifically designed with chlorine-resistant components for reclaimed water applications.



Water Saving Tips

- The PRS-Dial is an excellent means of regulating outlet pressure at the valve regardless of incoming pressure fluctuations. It helps ensure optimal pressure performance at the head
- Rain Bird valves provide excellent filtration characteristics for maximum reliability in a wide range of environments
- PESB-R, GB-R, and EFB-CP-R reclaimed valves provide reliable operation in all water conditions. Valve diaphragms are composed of EPDM, a rubber material which is chlorine and chemical resistant

DV Series

¾", 1" (20/27, 26/34) Plastic Residential Valves

- Double-filtered pilot-flow design for maximum reliability
- Balanced-pressure diaphragm for long life
- Energy-efficient, low-power encapsulated solenoid with captured plunger and 90 mesh (200 micron) solenoid filter

Features

- External bleed to manually flush system of dirt and debris during installation and system start-up
- Internal bleed for spray-free manual operation
- Buna-N diaphragm with self-cleaning 90 mesh (200 micron) pilot water filter and captive spring
- Operates in low-flow and landscape drip applications when the RBY filter is installed upstream. An option for low flow (3 gpm or less; 0.68 m³/h; 11.4 l/m) applications is to use a LFV-100/075 Low Flow Valve (see page 204), or Drip Control Zone Kit (see page 197)
- 1¼" (3.2 cm) stainless steel phillips head screws
- Five-year trade warranty

Options

- Slip-by-slip configuration for low-cost, solvent-weld installations
- Male by barb configuration for installation with poly pipe
- Angle configuration for flexible installations especially when submains are deep
- Accepts latching solenoid for use with Rain Bird battery-operated controllers

Operating Range

- Pressure: 15 to 150 psi (1.03 to 10.34 bar)
- 075-DV flow: 0.2 to 22 gpm (0.05 to 5.0 m³/h; 0.76 to 83.3 l/m).
- 100-DV flow: 0.2 to 40 gpm (0.05 to 9.08 m³/h; 0.76 to 151.4 l/m).
- Water temperature: Up to 110° F (43° C)
- Ambient temperature: Up to 125° F (52° C)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.30 A (7.2 VA) at 60 Hz
- Holding current: 0.19 A (4.6 VA) at 60 Hz
- Coil resistance: 42-55 ohms

Dimensions

- Height: 4½" (11.4 cm)
- Height (Angle): 5½" (14 cm)
- Length: 4¾" (11.1 cm)
- Length (Angle): 3¾" (9.5 cm)
- Length (MB): 5¾" (14.6 cm)
- Width: 3½" (8.4 cm)

Models

- 075-DV: ¾" (20/27)
- 100-DV: 1" (26/34)*
- 100-DV-SS: 1" (26/34)
- 100-DV-A: 1" (26/34)
- 100-DV-MB: 1" (26/34)

* Available with BSP threads

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. DV Series valves and any other Rain Bird residential valves cannot be used with PRS pressure regulating modules.
3. Not recommended for use with two-wire systems.



075-DV



100-DV



100-DV-MB



100-DV-A



100-DV-SS

How To Specify

100 - DV - MB

Optional Configuration:
MB: Male x barb
A: Angle
SS: Slip x Slip

Model
DV: Remote Control Valve
ASV: Anti-siphon valve

Size
075: ¾" (20/27);
100: 1" (26/34)

This specifies a 100-DV valve; 1" (26/34) male x barb with flow control. **Note:** For non-U.S. applications it is necessary to specify NPT or BSP thread type (1" only).

DVF Series

1" (26/34) Plastic Residential Valves with Flow Control

- Economical irrigation valve for residential and light commercial applications where flow control is required
- Incorporates all features of DV Series Valves
- 60% easier system tuning with power steering flow control, a unique, easy-to-turn, patented pressure assisted mechanism

Operating Range

- Pressure: 15 to 150 psi (1.03 to 10.34 bar)
- 100-DVF flow: 0.2 to 40 gpm (0.05 to 9.08 m³/h; 0.76 to 151.40 l/m)
- Water temperature: Up to 110° F (43° C)
- Ambient temperature: Up to 125° F (52° C)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.30 A (7.2 VA) at 60 Hz
- Holding current: 0.19 A (4.6 VA) at 60 Hz
- Coil resistance: 42-55 ohms

Dimensions

- Height: 5³/₈" (14.2 cm)
- Height (Angle): 6¹/₈" (15.5 cm)
- Length: 4³/₈" (11.1 cm)
- Length (Angle): 3³/₄" (9.5 cm)
- Length (MB): 5³/₄" (14.6 cm)
- Width: 3¹/₈" (8.4 cm)

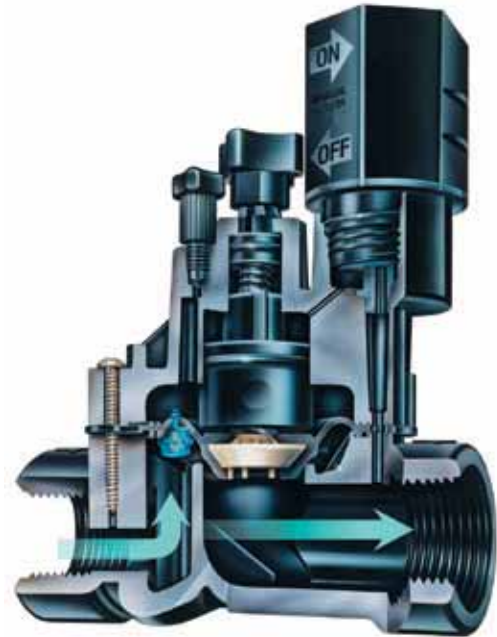
Models

- 100-DVF: 1" (26/34)*
- 100-DVF-SS: 1" (26/34)
- 100-DVF-A: 1" (26/34)
- 100-DVF-MB: 1" (26/34)

* Available with BSP threads

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. DV Series valves and any other Rain Bird residential valves cannot be used with PRS pressure regulating modules.
3. Not recommended for use with two-wire systems.



DVF Cutaway



100-DVF



100-DVF-SS



100-DVF-MB



100-DVF-A

DV and DVF Valve Pressure Loss (psi)		
Flow gpm	075-DV ¾" psi	100-DV/100-DVF 1" psi
1	3.2	3.3
3	3.9	3.6
5	4.2	3.8
10	5.0	3.8
20	7.7	5.1
30	-	6.4
40	-	8.6

DV and DVF Valve Pressure Loss (bar)			METRIC
Flow m³/h	l/m	075-DV ¾" bar	100-DV/100-DVF 1" bar
0.23	4	0.22	0.23
0.60	10	0.26	0.24
1.20	20	0.29	0.26
3.60	60	0.45	0.32
4.50	75	0.53	0.35
6.00	100	-	0.41
9.00	150	-	0.59

100-DV/DVF Angle, MxB Valve Pressure Loss (psi)		
Flow gpm	Angle 1" psi	Male x barb 1" psi
1	2.8	2.5
3	3.0	2.9
5	3.2	3.0
10	3.9	3.1
20	4.3	4.3
30	5.4	7.4
40	8.2	12.7

100-DV/DVF Angle, MxB Valve Pressure Loss (bar)			METRIC
Flow m³/h	l/m	Angle 1" bar	Male x barb 1" bar
0.23	4	0.19	0.17
0.60	10	0.20	0.19
1.20	20	0.22	0.21
3.60	60	0.28	0.26
4.50	75	0.30	0.30
6.00	100	0.35	0.44
9.00	150	0.56	0.86

Note: See Xerigation section (page 206) for RBY Filter flow loss data

Note: DV/DVF Male x barb not recommended for flows exceeding 30 gpm
(6.81 m³/h, 113.56 l/m)

ASVF Series

¾", 1" (20/27, 26/34) Plastic Residential Valves with Atmospheric Backflow Preventer

- Combination reliable DVF Valve and atmospheric vacuum breaker in one unit
- I.A.P. M.O. and A.S.S.E. listing approved
- City of Los Angeles listing approved and Canadian Standards Association (CSA) listing approved

Features

- Incorporates all features of DV and DVF Series valves

Operating Range

- Pressure: 15 to 150 psi (1.03 to 10.34 bar)
- 075-ASVF flow: 0.2 to 22 gpm (0.05 to 5.0 m³/h; 0.76 to 83.3 l/m). An option for low flow (3 gpm or less; 0.68 m³/h; 11.36 l/m) applications is to use a ASVF-LF-075 Low Flow Anti-siphon Valve (see page 199), or Drip Control Zone Kit (see page 197)
- 100-ASVF flow: 0.2 to 40 gpm (0.05 to 9.09 m³/h; 0.76 to 151.42 l/m)
- Water temperature: Up to 110° F (43° C)
- Ambient temperature: Up to 125° F (52° C)

Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.30 A (7.2 VA) at 60 Hz
- Holding current: 0.19 A (4.6 VA) at 60 Hz
- Coil resistance: 42-55 ohms

Codes

- Anti-siphon must be installed at least 6" (15.2 cm) above the highest point of water in the pipe and sprinklers it serves
- No valve can be located downstream of the anti-siphon valve
- Anti-siphon valves must not be operated continuously for more than twelve (12) hours
- Consult local codes

Dimensions

- Height: 6¼" (15.8 cm)
- Length: 6½" (15.5 cm)
- Width: 3½" (8.1 cm)

Models

- 075-ASVF: ¾" (20/27)
- 100-ASVF: 1" (26/34)

Models available in NPT threads only

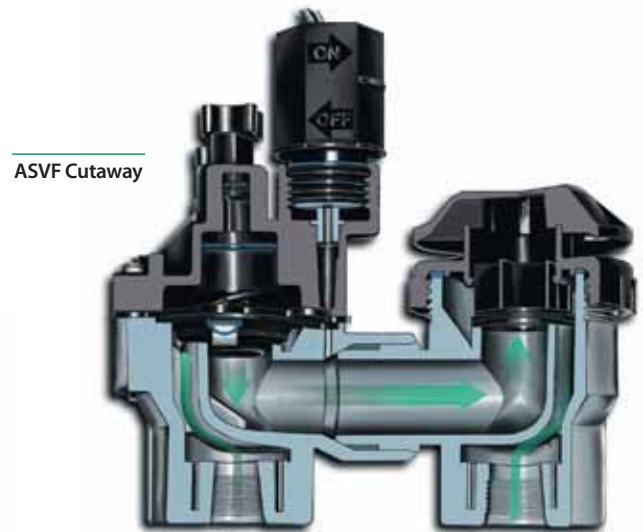
Not recommended for use with two-wire systems.



ASVF Valve Pressure Loss (psi)		
Flow gpm	075-ASVF ¾" psi	100-ASVF 1" psi
1	2.8	2.9
3	3.4	3.1
5	3.8	3.3
10	4.6	3.9
20	6.5	5.0
30	-	7.8
40	-	13.4

ASVF Valve Pressure Loss (bar)			METRIC
Flow m ³ /h	l/m	075-ASVF ¾" bar	100-ASVF 1" bar
0.23	3.8	0.19	0.20
0.6	10	0.23	0.21
1.2	20	0.26	0.23
3.6	60	0.39	0.31
4.5	75	0.45	0.34
6.0	100	-	0.47
9.0	150	-	0.91

* See Xerigation section (page 206) for RBY Filter flow loss data. 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



ASVF Cutaway

100-ASVF

JTV/JTVF Jar Top Valve Series

1" (26/34) – Versatility, Value, Convenience

- Double-filtered pilot flow for maximum reliability
- Threaded bonnet provides easy removal with no screws
- Accepts latching solenoid for use with Rain Bird battery-operated controllers

Features

Reliability

- Balanced-pressure diaphragm for long life
- Buna-N diaphragm with self-cleaning 90-mesh (200 micron) pilot water filter and stainless steel spring
- Energy efficient, low-power encapsulated solenoid with captured plunger

Versatility

- 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
- Available with optional flow control feature

Ease of Service

- Trouble-free service with few parts
- Drop-in diaphragm for effortless maintenance

Operating Range

- Pressure: 15 to 150 psi (1.0 to 10.3 bar)
- Flow: 0.25 to 30 gpm (0.23 to 6.82 m³/h; 0.95 to 113.6 l/m)
- Operating temperatures: Water temperature up to 110° F (43° C); ambient temperature up to 125° F (52° C)
- Operates in low-flow and Xerigation® applications when the RBY filter is installed upstream

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.30 A (7.2 VA) at 60 Hz
- Holding current: 0.19 A (4.6 VA) at 60 Hz
- Coil resistance: 42-55 ohms

Dimensions

- Height: 5" (12.7 cm)
- Length: 4" (10.2 cm)
- Length (MxB): 5.8" (14.7 cm)
- Width: 3 1/8" (7.9 cm)

Models

- 100-JTV: 1" (26/34) female x female threaded*
- 100-JTV-SS: 1" (26/34) slip x slip
- 100-JTV-MB: 1" male x barb
- 100-JTVF-BSP: 1" female x female with flow control*

* Important Note: BSP is the only thread option available with flow control
Not recommended for use with two-wire systems.

Jar Top Valve Pressure Loss (psi)		
Flow gpm	JTV/JTVF psi	Male x barb psi
1	3.0	3.8
3	3.4	4.2
5	3.8	4.4
10	4.5	4.6
15	5.6	4.7
20	6.9	5.5
30	9.7	9.8

Jar Top Valve Pressure Loss (bar)			METRIC
Flow m ³ /h	l/m	JTV/JTVF bar	Male x barb bar
0.23	3.8	0.20	0.27
0.6	10	0.23	0.29
1.2	20	0.27	0.30
3.6	60	0.40	0.34
4.5	75	0.49	0.41
6.0	100	0.60	0.57
6.8	114	0.67	0.67



How To Specify

100 - JTVF - SS

Size
100: 1" (26/34)

Model
JTV: Jar Top Valve
JTVF: Jar Top Valve w/Flow Control

Optional Configuration:
SS: Slip x Slip
MM: Male x Male
MB: Male x Barb

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

HV Series

1" (20/27, 26/34) Plastic Residential Valves
Outstanding performance. Unmatched durability.



- Eccentric diaphragm for smooth closing, less water hammer
- Compact design, 2.54" spin radius for tight installations
- Your choice of tools to open valve (nut driver, Phillips head screwdriver, slotted head screwdriver)

Features

• Reliability

- Glass-filled polypropylene body for strength
- Reverse flow normally closed design
- Double-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

- 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

• Ease of Service

- Captive multi-drive screws for easier maintenance
- Quick access to diaphragm with only four screws
- Diaphragm locating post for reliable service

Operating Range

- Pressure: 15 to 150 psi (1.0 to 10.34 bar)
- 0.2 to 30 gpm (0.05 to 6.82 m³/h; 0.01 to 1.89 l/s); for flows below 3 gph (0.68 m³/h; 0.19 l/s) or any Xerigation® application, use RBY-100-200MX filter installed upstream
- Water temperature: Up to 110° F (43° C)
- Ambient temperature: Up to 125° F (52° C)

Electrical Specifications

- 24 VAC 50/60 Hz solenoid
- Maximum Inrush Current: 0.250 Amps @ 60HZ
- Holding Current: 0.143 Amps @ 60HZ
- Coil Resistance: 52 to 55 Ohms

Dimensions

- Height: 4.62" (11.7 cm)
- Length: 4.4" (11.2 cm)
- Width: 3.1" (7.9 cm)

HV Valve Pressure Loss (psi)

Flow (gpm)	1" HV (psi)
1	1.57
3	2.07
5	2.38
10	3.33
20	4.59
30	6.14
40	8.23

HV Valve Pressure Loss (psi)

METRIC

Flow (m ³ /h)	Flow (l/s)	1" HV (bar)
0.25	0.06	0.11
0.75	0.21	0.14
1.00	0.28	0.16
2.00	0.56	0.23
5.00	1.39	0.32
7.50	2.08	0.42
9.10	2.52	0.57

* See Xerigation section (page 206) for RBY Filter flow loss data. 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

Models

- 100-HV NPT
- 100-HV-SS
- 100-HV BSP

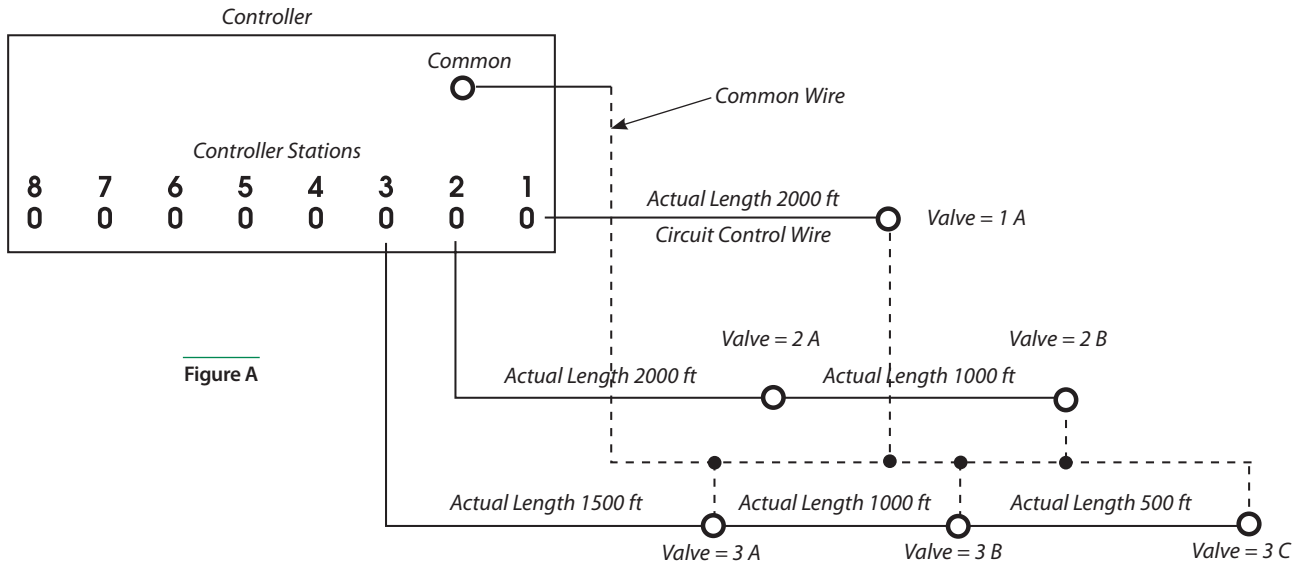


Residential Valve Wire Sizing

4.6 VA Valves (DV) - Equivalent Feet of Circuit Length				
80 psi (5.5 bar) Water Pressure at Valve				
Common Wire Size	18	Control Wire Size		12
		16	14	
18	3000			
16	3680	4700		
14	4290	5850	7570	
12	4800	6840	9300	12050
100 psi (6.9 bar) Water Pressure at Valve				
Common Wire Size	18	Control Wire Size		12
		16	14	
18	2300			
16	2820	3660		
14	3290	4490	5800	
12	3680	5240	7130	9420

125 psi (8.6 bar) Water Pressure at Valve				
Common Wire Size	18	Control Wire Size		12
		16	14	
18	1400			
16	1720	2200		
14	2000	2730	3530	
12	2240	3190	4340	5620
150 psi (10.4 bar) Water Pressure at Valve				
Common Wire Size	18	Control Wire Size		12
		16	14	
18	600			
16	730	950		
14	860	1170	1510	
12	960	1370	1860	2410

Valves



For Rain Bird commercial valves wire sizing please see page 107

PGA Series

1", 1½", 2" (26/34, 40/49, 50/60) Plastic Globe/Angle Valves

- Plastic globe/angle valve for residential/light commercial applications. The PGA Series offers versatility at an affordable price
- Fabric-reinforced diaphragm for longer life
- Rugged PVC construction for reliable operation

Features

- Globe and angle configuration for flexibility in design and installation
- Slow closing to prevent water hammer and subsequent system damage
- One-piece solenoid with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- Non-rising flow control handle adjusts water flow as needed
- Manual internal bleed operates the valve without allowing water into the valve box. Allows pressure regulator adjustment without turning on the valve at the controller
- Normally closed, forward flow design

Options

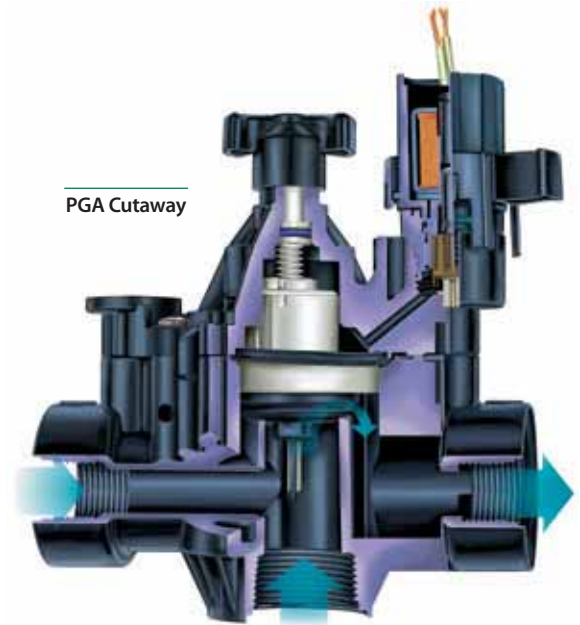
- Accommodates field installed PRS-Dial pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)
- Purple flow control handles for easy identification of non-potable water systems
 - PGA-NP-HAN1 (1" and 1½")
 - PGA-NP-HAN2 (2")
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10.4 bar)

Operating Range

- Pressure: 15 to 150 psi (1.04 to 10.4 bar)
- PRS-Dial regulates up to 100 psi (6.9 bar)
- Flow: 2 to 150 gpm (0.45 to 34.05 m³/h; 7.8 to 568 l/m)
- Flow with PRS-Dial: 5 to 150 gpm (1.14 to 34.05 m³/h; 19.2 to 568 l/m)
- Water temperature: Up to 110° F (43° C) - refer to chart
- Ambient temperature: Up to 125° F (52° C)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9.84 VA) at 60Hz
- Holding current: 0.28 A (6.72 VA) at 60Hz
- Coil resistance: 30-39 ohms



How To Specify

100 - PGA - PRS-D

Size	Model	Optional Feature
100: 1" (26/34)	PGA	PRS-Dial: pressure regulating module (must be ordered separately)
150: 1½" (40/49)		
200: 2" (50/60)		

Note: Valve and PRS-Dial module must be ordered separately. For non-U.S. applications, it is necessary to specify NPT or BSP thread type.

PGA Series (cont.)

Dimensions

Model	Height	Length	Width
• 100-PGA	7 ¼" (18.4 cm)	5 ½" (14.0 cm)	3 ¼" (8.3 cm)
• 150-PGA	8" (20.3 cm)	6 ¾" (17.2 cm)	3 ½" (8.9 cm)
• 200-PGA:	10" (25.4 cm)	7 ¾" (19.7 cm)	5" (12.7 cm)

Note: PRS-Dial adds 2" (5.1 cm) to valve height

Models

- 100-PGA: 1" (26/34)
- 150-PGA: 1 ½" (40/49)
- 200-PGA: 2" (50/60)

BSP threads available; specify when ordering

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s) in order to reduce the effects of water hammer
2. For flows below 5 gpm (1.14 m³/h; 19.2 l/m), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm
3. For flows below 10 gpm (2.27 m³/h; 37.8 l/m) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

PGA Series Temperature Rating

Water Temperature	Continuous Pressure
73° F	150 psi
80° F	132 psi
90° F	112 psi
100° F	93 psi
110° F	75 psi

PGA Series Temperature Rating

METRIC

Water Temperature	Continuous Pressure
23° C	10.4 bar
27° C	9.1 bar
32° C	7.7 bar
38° C	6.4 bar
43° C	5.2 bar

PGA Series Valve Pressure Loss (psi)

Flow gpm	100-PGA Globe 1"	100-PGA Angle 1"	150-PGA Globe 1½"	150-PGA Angle 1½"	200-PGA Globe 2"	200-PGA Angle 2"
1	5.1	4.3	-	-	-	-
5	5.5	5.0	-	-	-	-
10	5.9	5.5	-	-	-	-
20	6.0	5.6	-	-	-	-
30	6.4	5.5	1.9	1.3	-	-
40	7.0	7.5	3.2	2.0	1.2	1.0
50	-	-	4.8	3.0	1.5	0.9
75	-	-	11.1	6.5	3.0	1.7
100	-	-	19.2	11.7	5.5	3.0
125	-	-	-	-	8.6	4.8
150	-	-	-	-	12.0	6.5

PGA Series Valve Pressure Loss (bar)

METRIC

Flow m³/h	Flow l/m	100-PGA Globe 2.5 cm	100-PGA Angle 2.5 cm	150-PGA Globe 3.8 cm	150-PGA Angle 3.8 cm	200-PGA Globe 5.1 cm	200-PGA Angle 5.1 cm
0.23	3.8	0.35	0.30	-	-	-	-
0.6	10	0.36	0.32	-	-	-	-
1.2	20	0.38	0.35	-	-	-	-
3	50	0.41	0.38	-	-	-	-
6	100	0.43	0.38	0.10	0.07	-	-
9	150	0.48	0.51	0.22	0.14	0.08	0.07
12	200	-	-	0.38	0.23	0.12	0.07
15	250	-	-	0.61	0.36	0.17	0.10
18	300	-	-	0.86	0.51	0.24	0.13
21	350	-	-	1.16	0.70	0.33	0.18
24	400	-	-	-	-	0.43	0.23
27	450	-	-	-	-	0.54	0.30
30	500	-	-	-	-	0.66	0.36
34	568	-	-	-	-	0.83	0.45

Notes

1. Loss values are with flow control fully open
2. PRS-Dial recommended for use in shaded area only

PEB/PESB Series

1", 1½", 2" (26/34, 40/49, 50/60) Plastic Industrial Valves

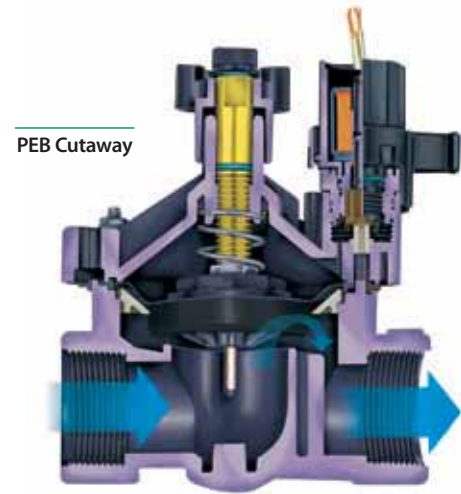
- Body constructed of durable glass-filled nylon for long life and reliable performance. Stainless steel studs molded into the body resist thread damage
- Slow closing to prevent water hammer and subsequent system damage
- Fabric-reinforced diaphragm for longer life

Features

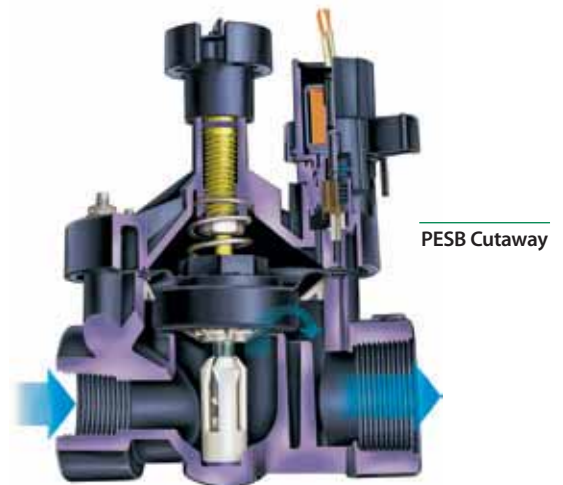
- Low flow operating capability for a wide range of applications
- Plastic scrubber on the PESB valve scrapes the stainless steel screen to clean and break down grit and plant material. Prevents debris build-up and clogging
- One-piece solenoid with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- Flow control handle adjusts water flow as needed
- Manual internal bleed operates the valve without allowing water into the valve box. Allows pressure regulator adjustment without turning on the valve at the controller
- Manual external bleed permits flushing debris from the system. Recommended for system start up and after repairs.
- Normally closed, forward flow design
- Globe configuration

Options

- Accommodates field installed PRS-Dial pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)
- Purple flow control handles for easy identification of non-potable water systems (sold separately)
 - PEB-NP-HAN1(1")
 - PEB-NP-HAN2 (1½" and 2")
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10.4 bar)



PEB Cutaway



PESB Cutaway



200-PEB



200-PESB

How To Specify

100 - PEB - PRS-D

Size	Model	Optional Feature
100: 1" (26/34)	PEB	PRS-Dial: pressure regulating module (must be ordered separately)
150: 1½" (40/49)		
200: 2" (50/60)		

Note: Valve and PRS-Dial module must be ordered separately. For non-U.S. applications, it is necessary to specify NPT or BSP thread type.

PEB/PESB Series (cont.)

Operating Range

- Pressure: 20 to 200 psi (1.38 to 13.8 bar)
- PRS-Dial regulates up to 100 psi (6.9 bar)
- Flow: 0.25 to 200 gpm (0.06 to 45.40 m³/h; 1.2 to 757 l/m)
- Flow with PRS-Dial: 5 to 200 gpm (1.14 to 45.40 m³/h; 19.2 to 757 l/m)
- Water temperature: Up to 150° F (66° C)
- Ambient temperature: Up to 150° F (66° C)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9.84 VA) at 60Hz
- Holding current: 0.28 A (6.72 VA) at 60Hz
- Coil resistance: 30-39 ohms

Dimensions

Model	Height	Length	Width
• 100-PEB and 100-PESB:	6½" (16.5 cm)	4" (10.2 cm)	4" (10.2 cm)
• 150-PEB and 150-PESB:	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)
• 200-PEB and 200-PESB:	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)

Note: The PRS-Dial option adds 2" (5.1 cm) to valve height

Models

- 100-PEB and 100-PESB: 1" (26/34)
- 150-PEB and 150-PESB: 1½" (40/49)
- 200-PEB and 200-PESB: 2" (50/60)

BSP threads available; specify when ordering

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s) in order to reduce the effects of water hammer
2. For flows below 5 gpm (1.14 m³/h; 19.2 l/m), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm
3. For flows below 10 gpm (2.27 m³/h; 37.8 l/m) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position
4. For PRS-Dial applications, Rain Bird recommends the installation of a pressure-regulating master valve or inline pressure regulator when the inlet pressure exceeds 100 psi (6.9 bar)

PEB and PESB Series Valve Pressure Loss (psi)

Flow gpm	100-PEB 1"	150-PEB 1½"	200-PEB 2"
0.25	0.8	-	-
0.5	1.0	-	-
1	1.3	-	-
5	1.7	-	-
10	1.8	-	-
20	2.9	3.9	-
30	5.6	3.6	-
40	10.0	3.5	-
50	15.6	3.6	4.8
75	-	5.4	4.5
100	-	9.6	5.2
125	-	14.6	8.2
150	-	21.2	11.8
175	-	-	15.5
200	-	-	19.5

PEB and PESB Series Valve Pressure Loss (bar) METRIC

Flow m ³ /h	Flow l/m	100-PEB 2.5 cm	150-PEB 3.8 cm	200-PEB 5.1 cm
0.06	1	0.06	-	-
0.3	5	0.09	-	-
0.6	10	0.10	-	-
1.2	20	0.12	-	-
3	50	0.15	-	-
6	100	0.32	0.26	-
9	150	0.68	0.24	-
12	200	-	0.26	0.33
15	250	-	0.33	0.32
18	300	-	0.42	0.32
21	350	-	0.57	0.34
24	400	-	0.74	0.41
27	450	-	0.92	0.51
30	500	-	1.14	0.64
33	550	-	1.38	0.77
36	600	-	-	0.90
39	650	-	-	1.04
42	700	-	-	1.18
45	757	-	-	1.34

Notes

1. Loss values are with flow control fully open
2. PRS-Dial recommended for use in shaded area only

PESB-R Series Valves

1", 1½", 2" (26/34, 40/49, 50/60) Durable Chlorine-Resistant Valves for Reclaimed Water Applications

- Reliable operation even in heavily chlorinated water. Valve diaphragm composed of EPDM, a rubber material which is chlorine and chemical resistant
- Plastic valve parts molded of plastic which is chlorine and chemical resistant
- Body constructed of durable glass-filled nylon for long life and heavy-duty performance at 200 psi (13.8 bar) pressure

Features

- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- PESB-R conversion kits also available to convert existing PEB and PESB valves to reclaimed water valve. Kit includes NP handle, sticker, diaphragm assembly, scraper and snap washer
- Stainless steel studs molded into the body. Bonnet can be attached and removed easily without damaging threads
- External bleed protects the solenoid ports from debris when system is flushed.
- Internal bleed operates the valve without allowing water into the valve box; allows pressure regulator to be adjusted without turning on the valve at the controller first
- Low-flow operating capability (0.25 gpm; 0.06 m³/h; 1.2 l/m) for a wide range of applications
- Slow closing to prevent water hammer and subsequent system damage
- Scrubber mechanism scrapes stainless steel screen clean to break down grit and plant material
- Purple flow control handle standard on PESB-R Series valves



PESB-R Cutaway

Valves



150-PESB-R

How To Specify

100 - PESBR - PRS-D

Model
PESB-R:
scrubber
model

Size
100: 1" (26/34)
150: 1½" (40/49)
200: 2" (50/60)

Optional Feature
PRS-Dial: pressure
regulating module
(must be ordered
separately)

Note: Valve and PRS-Dial module must be ordered separately.

PESB-R Series (cont.)

Options

- Accommodates optional, field installed PRS-Dial pressure regulating module to ensure optimum sprinkler performance
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10.4 bar)

Operating Range

- Pressure: 20 to 200 psi (1.38 to 13.8 bar)
- Flow: 0.25 to 200 gpm (0.06 to 45.40 m³/h; 1.2 to 757 l/m)
- Flow with PRS-Dial: 5 to 200 gpm (1.14 to 45.40 m³/h; 19.2 to 757 l/m)
- Temperature: Up to 150° F (66° C)

Electrical Specifications

- Power: 24 VAC 50/60 cycle solenoid
- Inrush current: 0.41 A (9.84 VA) at 60 Hz
- Holding current: 0.28 A (6.72 VA) at 60 Hz
- Coil resistance: 30 - 39 ohms

Dimensions

Model	Height	Length	Width
• 100-PESB-R	6½" (16.5 cm)	4" (10.2 cm)	4" (10.2 cm)
• 150-PESB-R	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)
• 200-PESB-R	8" (20.3 cm)	6" (15.2 cm)	6" (15.2 cm)

Note: The PRS-Dial option adds 2" (5.1 cm) to valve height

Models

- 100-PESB-R: 1" (26/34)
- 150-PESB-R: 1½" (40/49)
- 200-PESB-R: 2" (50/60)
- 100-PESB-R-WK: 1" (26/34) Conversion Kit
- 150-PESB-R-WK: 1½" (40/49) Conversion Kit
- 200-PESB-R-WK: 2" (50/60) Conversion Kit

BSP threads available, specify when ordering

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s) in order to reduce the effects of water hammer
2. For flows below 5 gpm (1.14 m³/h; 19.21 l/m), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm
3. For flows below 10 gpm (2.27 m³/h; 37.8 l/m) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

PESB-R Series Valve Pressure Loss (psi)

Flow gpm	100-PESB-R 1"	150-PESB-R 1½"	200-PESB-R 2"
0.25	1.6	-	-
0.5	3.0	-	-
1	1.8	-	-
5	2.9	-	-
10	2.9	-	-
20	2.6	3.5	-
30	5.8	3.1	-
40	10.2	2.3	-
50	16.0	2.1	3.7
75	-	4.3	3.3
100	-	7.5	4.7
125	-	11.9	8.6
150	-	17.0	12.6
175	-	-	14.8
200	-	-	18.9

PESB-R Series Valve Pressure Loss (bar)

METRIC

Flow m ³ /h	Flow l/m	100-PESB-R 2.5 cm	150-PESB-R 3.8 cm	200-PESB-R 5.1 cm
0.06	1	0.11	-	-
0.3	5	0.13	-	-
0.6	10	0.15	-	-
1.2	20	0.20	-	-
3	50	0.19	-	-
6	100	0.32	0.22	-
9	150	0.69	0.16	-
12	200	-	0.16	0.25
15	250	-	0.24	0.24
18	300	-	0.33	0.25
21	350	-	0.45	0.30
24	400	-	0.59	0.38
27	450	-	0.75	0.53
30	500	-	0.91	0.67
33	550	-	1.10	0.82
36	600	-	-	0.92
39	650	-	-	1.00
42	700	-	-	1.13
45	757	-	-	1.30

Notes

1. Loss values are with flow control fully open
2. PRS-Dial recommended for use in shaded area only

GB-R Series Brass Valves

1", 1¼", 1½", 2" (26/34, 33/42, 40/49, 50/60)

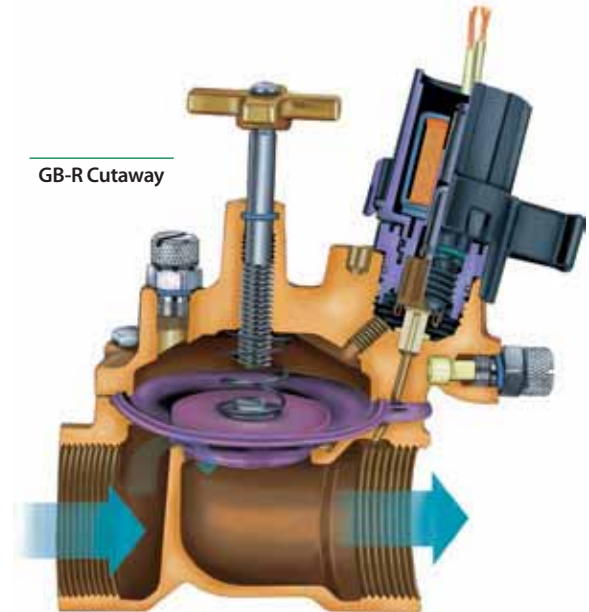
- Rugged red brass construction for longer life
- Durable, fabric-reinforced diaphragm for longer life, even in extreme conditions
- Normally closed, reverse flow design ensures valve will fail in the closed position if a tear or rip in the diaphragm occurs. Prevents flooding, water waste and landscape damage

Features

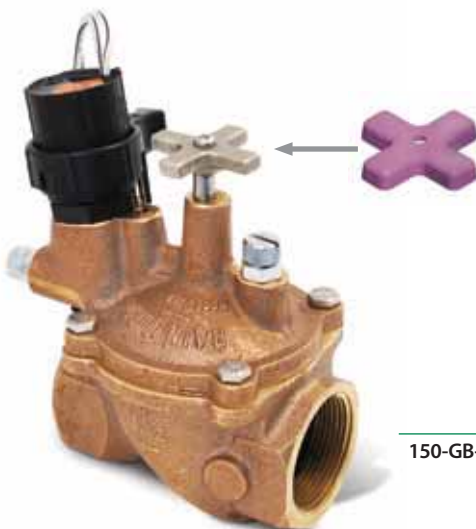
- Slow closing to prevent water hammer and subsequent system damage
- One-piece solenoid with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- Flow control handle adjusts water flow as needed
- Manual internal bleed operates the valve without allowing water into the valve box. Allows pressure regulator adjustment without turning on the controller
- Manual external bleed permits flushing debris from the system. Recommended for system start up and other repairs
- Globe configuration
- **Reclaimed Water Compatible:** All models now feature EPDM diaphragms and chlorine-resistant parts as standard equipment
- Purple handle cover included to designate non-potable water

Options

- Accommodates field installed PRS-Dial pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10.4 bar)



GB-R Cutaway



150-GB-R

Purple handle cover included to designate non-potable water

How To Specify

100 - GB-R - PRS-D

Model
GB-R

Size
100: 1" (26/34)
125: 1¼ (33/42)
150: 1½" (40/49)
200: 2" (50/60)

Optional Feature
PRS-Dial: pressure regulating module (must be ordered separately)

Note: Valve and PRS-Dial module must be ordered separately.

GB-R Series (cont.)

Operating Range

- Pressure: 15 to 200 psi (1.04 to 13.8 bar)
- PRS-Dial regulates up to 100 psi (6.9 bar)
- Flow with/without PRS-Dial: 5 to 200 gpm (1.14 to 45.40 m³/h; 19.2 to 757 l/m)
- Water temperature: Up to 150° F (66° C)
- Ambient temperature: Up to 150° F (66° C)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9.84 VA) at 60Hz
- Holding current: 0.28 A (6.72 VA) at 60Hz
- Coil resistance: 30-39 ohms

Dimensions

Model	Height	Length	Width
• 100-GB-R:	6" (15.2 cm)	4½" (11.4 cm)	2¼" (5.7 cm)
• 125-GB-R:	5¾" (14.6 cm)	5" (12.7 cm)	3" (7.6 cm)
• 150-GB-R:	6½" (16.5 cm)	5½" (14 cm)	4" (10, 2 cm)
• 200-GB-R:	7" (17.8 cm)	6¾" (17.1 cm)	5¼" (13.3 cm)

Note: The PRS-Dial option adds 2" (5.1 cm) to the valve height

Models

- 100-GB-R: 1" (26/34)
- 125-GB-R: 1¼" (33/42)
- 150-GB-R: 1½" (40/49)
- 200-GB-R: 2" (50/60)

BSP threads unavailable

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s) in order to reduce the effects of water hammer
2. For flows below 5 gpm (1.14 m³/h; 19.2 l/m), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm
3. For flows below 10 gpm (2.27 m³/h; 37.8 l/m) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

GB-R Series Valve Pressure Loss (psi)				
Flow gpm	100-GB-R 1"	125-GB-R 1¼"	150-GB-R 1½"	200-GB-R 2"
5	0.4	-	-	-
10	0.8	-	-	-
15	1.2	-	-	-
20	2.1	1.4	2.3	0.6
30	5.0	2.3	2.9	0.7
40	8.2	4.1	2.0	0.9
50	13.0	6.8	3.3	1.1
60	-	9.8	4.6	1.7
80	-	16.5	7.5	2.6
100	-	-	11.8	3.9
120	-	-	16.6	5.9
140	-	-	-	7.8
160	-	-	-	10.0
180	-	-	-	12.4
200	-	-	-	15.1

GB-R Series Valve Pressure Loss (bar)						METRIC
Flow m ³ /h	Flow l/m	100-GB-R 2.5 cm	125-GB-R 3.8 cm	150-GB-R 3.8 cm	200-GB-R 5.1 cm	
1	19	0.03	-	-	-	
3	50	0.07	-	-	-	
6	100	0.27	0.14	0.19	0.05	
9	150	0.56	0.28	0.14	0.06	
12	200	-	0.53	0.25	0.09	
15	250	-	0.82	0.38	0.14	
18	300	-	1.12	0.51	0.18	
21	350	-	-	0.70	0.24	
24	400	-	-	0.91	0.31	
27	450	-	-	1.13	0.40	
30	500	-	-	-	0.49	
33	550	-	-	-	0.58	
36	600	-	-	-	0.68	
39	650	-	-	-	0.79	
42	700	-	-	-	0.90	
45	757	-	-	-	1.04	

Notes

1. Loss values are with flow control fully open
2. PRS-Dial recommended for use in shaded area only

EFB-CP-R Series Brass Valves

1", 1¼", 1½", 2" (26/34, 33/42, 40/49, 50/60)

- Reliable performance even in dirty water applications. Self-flushing filter resists debris build-up
- Rugged red brass construction for longer life
- Durable, fabric-reinforced diaphragm for longer life, even in extreme conditions

Features

- Normally closed, reverse flow design ensures valve will fail in the closed position if a tear or rip in the diaphragm occurs. Prevents flooding, water waste and landscape damage
- Slow closing to prevent water hammer and subsequent system damage
- One-piece solenoid with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- Flow control handle adjusts water flow as needed
- Manual internal bleed operates the valve without allowing water into the valve box. Allows pressure regulator adjustment without turning on the controller
- Manual external bleed permits flushing debris from the system. Recommended for system start up and other repairs
- Contamination-proof, self-flushing filter screen resists debris build-up. Water flow continuously flushes the screen, dislodging particles and debris before they can accumulate and clog the filter
- Globe configuration
- **Reclaimed Water Compatible:** All models now feature EPDM diaphragms and chlorine-resistant parts as standard equipment
- Purple handle cover included to designate non-potable water



EFB-CP-R Cutaway



125-EFB-CP-R

Purple handle cover included to designate non-potable water

How To Specify

100 - EFB-CP-R - PRS-D

Size	Model	Optional Feature
100: 1"	EFB-CP-R	PRS-Dial: pressure regulating module (must be ordered separately)
125: 1¼"		
150: 1½"		
200: 2"		

Note: Valve and PRS-Dial module must be ordered separately.

EFB-CP-R Series (cont.)

Options

- Accommodates field installed PRS-Dial pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)
- Latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10.4 bar)

Operating Range

- Pressure: 15 to 200 psi (1.04 to 13.8 bar)
- PRS-Dial regulates up to 100 psi (6.9 bar)
- Flow with/without PRS-Dial: 5 to 200 gpm (1.14 to 45.40 m³/h; 19.2 to 757 l/m)
- Water temperature: Up to 150° F (66° C)
- Ambient temperature: Up to 150° F (66° C)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9.84 VA) at 60Hz
- Holding current: 0.28 A (6.72 VA) at 60Hz
- Coil resistance: 30-39 ohms

Dimensions

Model	Height	Length	Width
• 100-EFB-CP-R:	6" (15.2 cm)	4½" (11.4 cm)	3¼" (8.3 cm)
• 125-EFB-CP-R:	5¾" (14.6 cm)	5" (12.7 cm)	3¼" (8.3 cm)
• 150-EFB-CP-R:	6½" (16.5 cm)	5½" (14 cm)	4½" (11.4 cm)
• 200-EFB-CP-R:	7" (17.8 cm)	6¾" (17.1 cm)	5¾" (14.6 cm)

Note: The PRS-Dial option adds 2" (5.1 cm) to the valve height

Models

- 100-EFB-CP-R: 1" (26/34)*
- 125-EFB-CP-R: 1¼" (33/42)
- 150-EFB-CP-R: 1½" (40/49)*
- 200-EFB-CP-R: 2" (50/60)*

* BSP threads available; specify when ordering

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s) in order to reduce the effects of water hammer
2. For flows below 5 gpm (1.14 m³/h; 19.21 l/m), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm
3. For flows below 10 gpm (2.27 m³/h; 37.8 l/m) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

EFB-CP-R Series Valve Pressure Loss (psi)

Flow gpm	100	125	150	200
	EFB-CP-R 1"	EFB-CP-R 1¼"	EFB-CP-R 1½"	EFB-CP-R 2"
5	0.2	-	-	-
10	0.7	-	-	-
15	1.2	-	-	-
20	2.1	1.4	2.3	0.5
30	5	2.3	2.9	0.6
40	8.2	4.1	2	0.8
50	13	6.8	3.3	1.1
60	-	9.8	4.6	1.8
80	-	16.5	7.5	2.4
100	-	-	11.8	3.8
120	-	-	16.6	5.9
140	-	-	-	7.8
160	-	-	-	10
180	-	-	-	12.5
200	-	-	-	15.8

EFB-CP-R Series Valve Pressure Loss (bar)

Flow m ³ /h	Flow l/m	METRIC			
		100 EFB-CP-R 2.5 cm	125 EFB-CP-R 3.2 cm	150 EFB-CP-R 3.8 cm	200 EFB-CP-R 5.1 cm
1	19	0.01	-	-	-
3	50	0.07	-	-	-
6	100	0.27	0.14	0.19	0.04
9	150	0.56	0.28	0.14	0.05
12	200	-	0.53	0.25	0.09
15	250	-	0.82	0.38	0.14
18	300	-	1.12	0.51	0.16
21	350	-	-	0.70	0.23
24	400	-	-	0.91	0.30
27	450	-	-	1.13	0.40
30	500	-	-	-	0.49
33	550	-	-	-	0.58
36	600	-	-	-	0.68
39	650	-	-	-	0.79
42	700	-	-	-	0.92
45	757	-	-	-	1.09

Notes

1. Loss values are with flow control fully open
2. PRS-Dial module recommended for all flow rates

300-BPE/300-BPES Brass Valves

3" (80/90)

- The reliable brass body and glass-filled nylon bonnet equips these valves to withstand extreme pressure surges, effluent water and clogging debris. For additional protection, the BPES model features a patented scrubber mechanism to actively fight dirt and particles
- Unique hybrid construction featuring durable red brass body and glass-filled nylon bonnet for long life at a value price
- Durable, fabric-reinforced diaphragm for longer life

Features

- Slow closing to prevent water hammer and subsequent system damage
- **BPES only:** Patented nylon scrubber scrapes a stainless steel screen to clean and break down grit and plant material. Prevents debris build-up and clogging
- Globe and angle configuration for flexibility in design and installation
- Normally closed, forward flow design
- Robust solenoid provides dependable performance even during constant operation
- Flow control handle adjusts water flows as needed and incorporates a brass thread insert for longer life
- Manual external bleed permits flushing debris from the system. Recommended for system start up and repairs
- Highly efficient operation with extremely low pressure loss.

Options

- Accommodates field-installed PRS-Dial pressure regulating module to ensure optimum sprinkler performance. Regulates up to 100 psi (6.9 bar)
- Purple flow control handle for non-potable water applications. (BPE-NP-HAN)
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10.4 bar)

Operating Range

- Pressure: 20 to 200 psi (1.38 to 13.8 bar)
- PRS-Dial regulates up to 100 psi (6.9 bar)
- Flow with/without PRS-Dial: 60 to 300 gpm (13.62 to 68.10 m³/h; 227 to 1136 l/m)
- Temperature: Up to 150° F (66° C)

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9.84 VA) at 60Hz
- Holding current: 0.28 A (6.72 VA) at 60Hz
- Coil resistance: 28 ohms, nominal

300-BPES



BPE and BPES 3" Valve Pressure Loss (psi)

Flow gpm	Globe	Angle
60	6.6	6.8
80	5.1	5.9
100	3.2	3.5
120	1.8	1.8
140	1.8	2.1
160	2.0	2.1
180	2.2	2.0
200	2.7	2.5
250	4.0	3.4
300	4.9	4.5

BPE and BPES 3" Valve Pressure Loss (bar)

METRIC

Flow m ³ /h	Flow l/m	Globe	Angle
13.6	227	0.46	0.47
24	400	0.19	0.21
36	600	0.14	0.14
48	800	0.21	0.19
60	1000	0.29	0.26
68	1136	0.34	0.31

Notes

1. Loss values are with flow control fully open
2. PRS-Dial module recommended for all flow rates

Dimensions

Model	Height	Length	Width
• 300	13 ⁵ / ₈ " (34.61 cm)	8" (20.32 cm)	7" (17.78 cm)

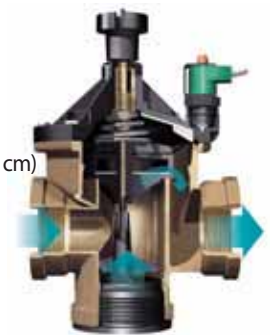
Models

- 300-BPE: 3" (80/90)
- 300-BPES: 3" (80/90)

BSP threads available; specify when ordering

Recommendations

1. Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s) in order to reduce the effects of water hammer
2. For flows below 5 gpm (1.14 m³/h; 19.2 l/m), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm.
3. For flows below 10 gpm (2.27 m³/h; 37.8 l/m) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position.



BPES Cutaway

How To Specify

300 - BPE - PRS-D

Model BPE	Optional Feature PRS-Dial: pressure regulating module (must be ordered separately)
Size 3" (80/90)	

Note: Valve and PRS-Dial module must be ordered separately. For non-U.S. applications, it is necessary to specify NPT or BSP thread type.



PRS-Dial cutaway

PRS-Dial

Pressure Regulating Module



- The PRS-Dial is an excellent means of regulating outlet pressure at the valve regardless of incoming pressure fluctuations. The visible scale makes adjustment quick and easy. The regulator fits all Rain Bird PGA, PEB, PESB, PESB-R, GB-R, EFB-CP-R, BPE and BPES series valves
- Regulates and maintains constant outlet pressure between 15 and 100 psi (1.04 to 6.9 bar) within ± 3 psi (± 0.21 bar)
- Adjustment knob with detents permits fine-tune setting in 1/3 psi (0.02 bar) increments. Dial cartridge makes installation and adjustment quick, easy and accurate

Features

- Improved spike reduction capabilities reduce water hammer
- Ergonomic design with snap-tight cover to prevent vandalism
- Waterproof dial cartridge eliminates fogging and binding
- Dial cartridge retrofits into all existing PRS-B units
- Schrader valve connects pressure hose gauge, ordered separately
- Easy field installation. PRS-Dial threads underneath the solenoid and adapter
- Corrosion-resistant glass-filled nylon for rugged performance

Operating Range

- Pressure: Up to 100 psi (6.9 bar)*
- Regulation: 15 to 100 psi (1.04 to 6.9 bar)
- Accuracy: ± 3 psi (± 0.21 bar)
- Flow: Refer to chart

* While the PRS-Dial unit can withstand pressures up to 200 psi (13.8 bar), accurate pressure regulation can be maintained only up to 100 psi (6.9 bar)



150-PGA with PRS-Dial Installation†



150-PESB with PRS-Dial Installation†



150-PESB-R with PRS-Dial Installation†



GB-R with PRS-Dial Installation†



150-EFB-CP-R with PRS-Dial Installation†



300-BPE with PRS-Dial Installation†

† Note: Valve and PRS-Dial module must be ordered separately.



PRS-Dial

Models

- PRS-D

Application Information

- Proper operation requires inlet pressure to be a minimum of 15 psi (1.04 bar) higher than desired outlet pressure
- For areas with very high pressure or uneven terrain, install sprinklers with PRS pressure regulating stems and/or SAM check valves
- When inlet pressure exceeds 100 psi (6.9 bar), a pressure regulating master valve or inline pressure regulator is required
- Rain Bird does not recommend using the pressure regulating module for applications outside the recommended flow ranges
- To reduce the effects of water hammer, Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft/sec (2.29 m/s)
- For flows below 10 gpm (2.27 m³/h; 37.8 l/m), Rain Bird recommends the flow control stem be turned down two full turns from the fully open position

Valve Flow Ranges*	
Model	gpm
100-PGA	5-40
150-PGA	30-100
200-PGA	40-150
100-PEB	5-50
150-PEB	20-150
200-PEB	75-200
100-PESB/PESB-R	5-50
150-PESB/PESB-R	20-150
200-PESB/PESB-R	75-200
100-GB-R	5-50
125-GB-R	20-80
150-GB-R	20-120
200-GB-R	20-200
100-EFB-CP-R	5-50
125-EFB-CP-R	20-80
150-EFB-CP-R	20-120
200-EFB-CP-R	20-200
300-BPE	60-300
300-BPES	60-300

Valve Flow Ranges*		METRIC
Model	m ³ /h	l/m
100-PGA	1.14-9.08	19.2-151
150-PGA	6.81-22.70	113-378
200-PGA	9.08-34.05	151-568
100-PEB	1.14-11.35	19.2-189
150-PEB	4.54-34.05	76-568
200-PEB	17.03-45.40	284-757
100-PESB/PESB-R	1.14-11.35	19.2-189
150-PESB/PESB-R	4.54-34.05	76-568
200-PESB/PESB-R	17.03-45.40	284-757
100-GB-R	1.14-11.35	19.2-189
125-GB-R	4.54-18.16	76-302
150-GB-R	4.54-31.78	76-529
200-GB-R	4.54-45.40	76-757
100-EFB-CP-R	1.14-11.35	19.2-189
125-EFB-CP-R	4.54-18.16	76-302
150-EFB-CP-R	4.54-31.78	76-529
200-EFB-CP-R	4.54-45.40	76-757
300-BPE	13.62-68.10	227-1136
300-BPES	13.62-68.10	227-1136

* These are the valve flow ranges. The PRS-Dial regulates only up to 100 psi (6.9 bar)

Valves

Quick-Coupling Valves

- Industrial-strength brass quick-coupling valves for convenient water access in potable and non-potable systems
- Rugged, red brass construction for long life and reliable performance
- Reliable operation with strong corrosion-resistant stainless steel spring

Features

- Optional locking cover on models 33-DLRC, 44-LRC, 5-LRC, 33-DNP, 44-NP and 5-NP (use 2049 key to unlock). Metal cover on model 7 only
- One-piece body design (models 3-RC, 5-RC, and 7).
- Two-piece body design for easy servicing (models 33-DRC, 44-LRC, 44-RC, 33-DNP, and 44-NP).
- Strong corrosion-resistant stainless steel spring prevents leakage
- Thermoplastic cover for durability
- 33-DNP, 44-NP and 5-NP covers marked with "Do Not Drink!" warnings in English and Spanish

Operating Range

- Pressure: 5 to 125 psi (0.35 to 8.63 bar)
- Flow: 10 to 125 gpm (2.27 to 28.38 m³/h; 37.8 to 473 l/m)
- 33-DNP, 44-NP and 5-NP flow: 10 to 70 gpm (2.27 to 15.89 m³/h; 37.8 to 265 l/m)

Dimensions (height)

- 3-RC: 4¼" (10.8 cm) • 44-RC: 6" (15.2 cm) • 7: 5¾" (14.6 cm)
- 33-DRC: 4¾" (11.1 cm) • 44-LRC: 6" (15.2 cm) • 33-DNP: 4¾" (11.1 cm)
- 33-DLRC: 4¾" (11.7 cm) • 5-RC: 5½" (14.0 cm) • 44-NP: 6" (15.2 cm)
- 5-LRC: 5½" (14.0 cm) • 5-NP: 5½" (14.0 cm)

Models

- 3-RC: ¾" (20/27) Rubber Cover, 1-Piece Body
- 33-DRC: ¾" (20/27) Double Track Key Lug, Rubber Cover, 2-Piece Body
- 33-DLRC: ¾" (20/27) Double Track Key Lug, Locking Rubber Cover, 2-Piece Body
- 44-RC: 1" (26/34) Rubber Cover, 2-Piece Body
- 44-LRC: 1" (26/34) Locking Rubber Cover, 2-Piece Body
- 5-RC: 1" (26/34) Rubber Cover, 1-Piece Body
- 5-LRC: 1" (26/34) Locking Rubber Cover, 1-Piece Body
- 7: 1½" (40/49) Metal Cover, 1-Piece Body
- 5-RC-BSP: 1" (26/34) Rubber Cover, 1-Piece Body, BSP threaded
- 5-LRC-BSP: 1" (26/34) Locking Rubber Cover, 1-Piece Body, BSP threaded
- 33-DNP: ¾" (20/27) Non-potable, Purple Locking Rubber Cover, 2-Piece Body
- 44-NP: 1" (26/34) Non-potable, Purple Locking Rubber Cover, 2-Piece Body
- 5-NP: 1" (26/34) Non-potable, Purple Locking Rubber Cover, 1-Piece Body

Note: For non-US applications, it is necessary to specify NPT or BSP thread type

Quick-Coupling Valves Pressure Loss (psi)					
Flow	3-RC	33-DRC 33-DLRC 33-DNP	44-RC 44-LRC 44-NP	5-RC 5-LRC 5-NP	7
gpm	¾"	¾"	1"	1"	1½"
10	1.8	2	-	-	-
15	4.7	4.3	2.2	-	-
20	7.2	7.6	4.4	-	-
30	-	-	11.5	4.1	-
40	-	-	-	7.3	-
50	-	-	-	11	1.7
60	-	-	-	15.7	2.5
70	-	-	-	21.5	3.6
80	-	-	-	-	4.9
100	-	-	-	-	8.4
125	-	-	-	-	14

Quick-Coupling Valves Pressure Loss (bar)						METRIC
Flow	3-RC	33-DRC 33-DLRC 33-DNP	44-RC 44-LRC 44-NP	5-RC 5-LRC 5-NP	7	
m ³ /h	l/m	1.9 cm	1.9 cm	2.5 cm	2.5 cm	3.8 cm
2.3	38	0.12	0.12	-	-	-
4	67	0.41	0.42	0.23	-	-
5	83	0.57	0.62	0.40	-	-
6	100	-	-	0.62	-	-
7	117	-	-	0.83	0.30	-
8	133	-	-	-	0.40	-
9	150	-	-	-	0.50	-
10	167	-	-	-	0.61	-
12	200	-	-	-	0.85	0.13
14	233	-	-	-	1.15	0.18
16	267	-	-	-	1.50	0.25
22	367	-	-	-	-	0.54
28	473	-	-	-	-	0.97



Quick-Coupling Valve Cutaway



Quick Coupling Valves

Valve Keys

Quick-Coupling Keys

Features

- Key threads into top of quick-coupling valve to provide water access

Models

- 33-DK: 3/4" (20/27)
- 44-K: 1" (26/34)
- 55-K-1: 1" (26/34)*
- 7-K: 1 1/2" (40/49)*

* Available with BSP threads; specify when ordering



55-K-1

Corresponding Valve Keys

Valve	Key	Top Pipe Threads	
		Male	Female
3-RC	33-DK	3/4"	1/2"
33-DRC/33-NP	33-DK	3/4"	1/2"
44-RC/44-NP	44-K	1"	3/4"
5-RC/5-NP	55-K-1	1"	-
7	7-K	1 1/2"	1 1/4"

Corresponding Valve Keys

METRIC

Valve	Key	Top Pipe Threads	
		Male	Female
3-RC	33-DK	20/27	15/21
33-DRC/33-NP	33-DK	20/27	15/21
44-RC/44-NP	44-K	26/34	20/27
5-RC/5-NP	55-K-1	26/34	-
7	7-K	40/49	33/42

SH Series

Hose Swivel

Features

- Attaches water hose to quick-coupling valve key
- Swivels up to 360°
- Allows hose to be pulled in any direction
- Prevents hose damage

Specifications

- SH-0: 3/4" (20/27) female pipe thread x 3/4" (20/27) male hose thread
- SH-1: 1" (26/34) female pipe thread x 3/4" (20/27) male hose thread
- SH-2: 1" (26/34) female pipe thread x 1" (26/34) male hose thread
- SH-3: 1 1/2" (40/49) female pipe thread x 1" (26/34) male hose thread

Models

- SH-0
- SH-1
- SH-2*
- SH-3

*Available with BSP threads



SH-0

Locking Cover Key

Features

- Locks and unlocks the optional locking cover on quick-coupling valves
- Operates the valve marker compression lock
- Compatible with models 33-DLRC, 33-DNP, 44-LRC, 44-NP, 5-LRC, and 5-NP

Model

- 2049 Cover Key



2049

SPLICE-1

Wire Splice

Features

- Fast, reliable splicing
- UV resistant black housing is pre-filled with non-toxic lithium grease

Specifications

- Splices low voltage electrical control wires: 30 V max
- Fits wires up to
 - 5 #18, #20, or #22 AWG
 - 4 #16 AWG
 - 2 #14 AWG

Model

- SPLICE-1



SPLICE-1

Purple Valve Handle Assembly

Features

- Purple flow control handle identifies valve as part of a non-potable system
- Easily field installed
- Sizes for all Rain Bird Commercial Valves

Models

- PGA-NP-HAN1 (1" and 1½" PGA Valves)
- PGA-NP-HAN2 (2" PGA Valves)
- PEB-NP-HAN1 (1" PEB/PESB Valves)
- PEB-NP-HAN2 (1½" and 2" PEB/PESB Valves)
- BPE-NP-HAN (3" BPE/BPES Valves)



PEB-NP-HAN



PGA-NP-HAN



BPE-NP-HAN

B to A Solenoid Adapter Kit

Features

- Rugged construction
- Includes model A solenoid
- Easily field installed
- Fits all plastic and brass commercial valves (PGA, PEB, PESB, PESB-R, GB-R, and EFB-CP-R)
- Standard on BPE and BPES series valves

Electrical Specifications

- 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9.84 VA) at 60Hz
- Holding current: 0.28 A (6.72 VA) at 60Hz
- Coil resistance: 28 ohms, nominal

Model

- SOL-ADA



Solenoid Adapter

Right Choice in Jar Top Valves Sales Brochure

Features

- Used by contractors when recommending Jar Top Valves to homeowners
- Size is 8½" wide x 11" high
- 3-hole punched; Packs of 25
- Contractors order through Rain Bird Rewards: rainbird.com/rewards or 1-888-370-1814

Model

- D39785: Right Choice in Jar Top Valves Sales Brochure



24 VAC Solenoid Valves Wire Sizing – 50Hz

9.8 VA Valves (EZ) with 26.5 Volt Transformers - Equivalent Feet of Circuit								
80 psi (5.5 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size							
	18 ●	16 ●	14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
18	2800							
16	3400	4400						
14	4000	5500	7100					
12	4500	6400	8700	11300				
10	4800	7100	10200	13900	18000			
8	5100	7700	11400	16200	22100	28600		
6	5300	8100	12300	18100	25700	35000	45000	
4	5400	8400	13000	19500	28800	40900	55400	72100
100 psi (6.9 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size							
	18 ●	16 ●	14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
18	2600							
16	3200	4200						
14	3800	5100	6700					
12	4200	6000	8200	10600				
10	4500	6700	9600	13100	16900			
8	4800	7200	10700	15200	20800	26900		
6	4900	7600	11600	17000	24200	32900	42400	
4	5100	7900	12200	18400	27100	38500	52200	67800
125 psi (8.6 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size							
	18 ●	16 ●	14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
18	2500							
16	3100	4000						
14	3600	5000	6400					
12	4100	5800	7900	10200				
10	4400	6500	9200	12600	16300			
8	4600	7000	10300	14700	20000	25900		
6	4800	7400	11200	16400	23300	31700	40900	
4	4900	7600	11800	17700	26100	37100	50300	65400
150 psi (10.4 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size							
	18 ●	16 ●	14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
18	2400							
16	3000	3900						
14	3500	4800	6200					
12	3900	5600	7600	9900				
10	4200	6200	8900	12100	15700			
8	4400	6700	10000	14100	19300	25000		
6	4600	7100	10700	15800	22500	30500	39300	
4	4700	7300	11300	17100	25200	35800	48400	63000
200 psi (13.8 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size							
	18 ●	16 ●	14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
18	1800							
16	2200	2900						
14	2600	3600	4700					
12	2900	4200	5800	7400				
10	3200	4700	6700	9200	11900			
8	3300	5100	7500	10700	14600	18900		
6	3500	5300	8100	11900	17000	23100	29800	
4	3500	5500	8600	12900	19000	27000	36600	47600

Commercial Valve Wire Sizing Procedure

Step 1

Determine actual distance, along wire run, from controller out to the first valve on a circuit and between each succeeding valve on a multiple valve circuit (as shown in Figure A, page 90). Example: (Two watt solenoid, 26.5 volt transformer, 50Hz, at 150 psi water pressure at valves.)

Step 2

Calculate the equivalent circuit length for each valve circuit on the controller. (See chart to left)

Step 3

Selecting Common Wire Size: Using the longest equivalent length calculated above, go to the appropriate valve chart and select a common wire and a control wire that are as close to the same size as possible (the common wire size should always be equal to or one size larger than the control wire size.) In the example above, the circuit for station #3 has the longest equivalent length, 7000 feet. In the chart (for this example use the chart for 150 psi water pressure at the valve and a 26.5 volt transformer) select a wire size combination of size 14 and 12 wire. Select common wire as size 12 wire. Since one common wire shall be used for all valves on the controller, you have now established the common wire size for that controller as size 12 wire.

Step 4

Sizing Circuit Control Wires: Reading only from the row for the common wire size selected in Step 3 (size 12), proceed to select each control wire size from the chart using the calculated equivalent length for each circuit.

Station #1: Equiv. Length = 1 valve x 2000 ft. = 2000 ft. select size 18 control wire

Station #2: Equiv. Length = (1 valve x 1000 ft.) + (2 valves x 2000 ft.) = 5000 ft. select size 16 control wire

Station #3: Equiv. Length = (1 valve x 500 ft.) + (2 valves x 1000 ft.) + (3 valves x 1500 ft.) = 7000 ft. select size 14 control wire

24 VAC Solenoid Valves Wire Sizing – 60Hz

9.8 VA Valves (EZ) with 26.5 Volt Transformers - Equivalent Feet of Circuit								
80 psi (5.5 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size		14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
	18 ●	16 ●						
18	2300							
16	2800	3700						
14	3300	4500	5900					
12	3700	5300	7200	9400				
10	4000	5900	8500	11500	15000			
8	4200	6400	9500	13500	18400	23800		
6	4400	6700	10200	15000	21400	29100	37500	
4	4500	7000	10800	16300	24000	34000	46100	60000
100 psi (6.9 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size		14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
	18 ●	16 ●						
18	2100							
16	2500	3300						
14	3000	4100	5300					
12	3300	4700	6500	8400				
10	3600	5300	7600	10300	13400			
8	3800	5700	8500	12000	16400	21300		
6	3900	6000	9100	13400	19100	26000	33500	
4	4000	6200	9600	14500	21400	30500	41300	53700
125 psi (8.6 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size		14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
	18 ●	16 ●						
18	1800							
16	2200	2900						
14	2600	3600	4600					
12	2900	4200	5700	7400				
10	3200	4700	6700	9100	11800			
8	3300	5000	7500	10600	14500	18700		
6	3400	5300	8100	11900	16900	22900	29600	
4	3500	5500	8500	12800	18900	26900	36400	47300
150 psi (10.4 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size		14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
	18 ●	16 ●						
18	1600							
16	2000	2600						
14	2300	3200	4200					
12	2600	3700	5100	6600				
10	2800	4200	6000	8200	10600			
8	3000	4500	6700	9500	13000	16800		
6	3100	4800	7200	10600	15200	20600	26600	
4	3200	4900	7600	11500	17000	24100	32700	42500
200 psi (13.8 bar) Water Pressure at Valve								
Common Wire Size	Control Wire Size		14 ●	12 ●	10 ●	8 ●	6 ●	4 ●
	18 ●	16 ●						
18	1300							
16	1600	2100						
14	1900	2600	3300					
12	2100	3000	4100	5300				
10	2300	3400	4800	6500	8500			
8	2400	3600	5400	7600	10400	13500		
6	2500	3800	5800	8500	12100	16500	21300	
4	2500	3900	6100	9200	13600	19400	26200	34100

Commercial Valve Wire Sizing Procedure

Step 1

Determine actual distance, along wire run, from controller out to the first valve on a circuit and between each succeeding valve on a multiple valve circuit (as shown in Figure A, page 90). Example: (Two watt solenoid, 26.5 volt transformer, 60Hz, at 150 psi water pressure at valves.)

Step 2

Calculate the equivalent circuit length for each valve circuit on the controller. (See chart to left)

Step 3

Selecting Common Wire Size: Using the longest equivalent length calculated above, go to the appropriate valve chart and select a common wire and a control wire that are as close to the same size as possible (the common wire size should always be equal to or one size larger than the control wire size.) In the example above, the circuit for station #3 has the longest equivalent length, 7000 feet. In the chart (for this example use the chart for 150 psi water pressure at the valve and a 26.5 volt transformer) select a wire size combination of size 12 and 10 wire. Select common wire as size 10 wire. Since one common wire shall be used for all valves on the controller, you have now established the common wire size for that controller as size 10 wire.

Step 4

Sizing Circuit Control Wires: Reading only from the row for the common wire size selected in Step 3 (size 10), proceed to select each control wire size from the chart using the calculated equivalent length for each circuit.

Station #1: Equiv. Length = 1 valve x 2000 ft. = 2000 ft. select size 18 control wire

Station #2: Equiv. Length = (1 valve x 1000 ft.) + (2 valves x 2000 ft.) = 5000 ft. select size 14 control wire

Station #3: Equiv. Length = (1 valve x 500 ft.) + (2 valves x 1000 ft.) + (3 valves x 1500 ft.) = 7000 ft. select size 12 control wire