

## GB and EFB-CP Series Valves

### Number One for Rugged, Dependable Performance!

Electric remote control valves don't come any better than GB and EFB-CP Series red brass valves. Looking for heavy duty performance in clean water applications? Choose the GB! Need a contamination-proof, self-flushing screen that cleans itself and resists debris build-up in dirty water? The EFB-CP's the one!

#### Features

- Red brass body and bonnet for longer life and more rugged performance at 200 psi.
- Contamination-proof, self-flushing nylon screen resists debris build-up. Water flow continuously flushes the screen, dislodging particles and debris before they can accumulate and clog the filter. (EFB-CP only)
- Reverse flow feature ensures valve will fail in the closed position if a tear or rip in the diaphragm occurs. Prevents flooding, water waste and landscape damage.
- Fluid resistor slows flow through the solenoid, reducing closing speed and preventing water hammer and system damage.
- One-piece solenoid design with captured plunger and spring prevents loss of parts.
- Low power requirement allows for longer wire runs without increased wire gauge size.
- Manual internal and external bleed.
- Adjustable flow control.
- Accommodate optional, field installed PRS-B pressure regulating module.

#### Operating Range

- Flow without PRS-B option: 5 to 200 GPM (1,0 to 46 m<sup>3</sup>/h; 0,26 to 12,78 l/s)
- Flow with PRS-B option: 10 to 200 GPM (2,0 to 46 m<sup>3</sup>/h; 0,63 to 12,78 l/s)
- Pressure: 15 to 200 psi (1,0 to 14 Bars)
- Temperature: Up to 150° F (66° C)

#### Electrical Specifications

- 24 VAC 50/60 cycle solenoid power requirement: 0.41 A (9.9 VA) inrush current; 0.23 A (5.5 VA) holding current

#### Models\*

- 100-GB: 1" (26/34) • 100-EFB-CP: 1" (26/34)\*
- 125-GB: 1 1/4" (33/42) • 125-EFB-CP: 1 1/4" (33/42)
- 150-GB: 1 1/2" (40/49) • 150-EFB-CP: 1 1/2" (40/49)\*
- 200-GB: 2" (50/60) • 200-EFB-CP: 2" (50/60)\*

\*BSP threads available; specify when ordering.

#### GB Series Valve Pressure Loss (psi)

Flow GPM	100-GB 1"	125-GB 1 1/4"	150-GB 1 1/2"	200-GB 2"
5	3.0	-	-	-
10	3.5	-	-	-
15	4.0	-	-	-
20	5.0	5.0	2.7	1.5
30	9.0	6.0	2.9	1.6
40	13.0	8.0	3.2	1.8
50	20.0	10.0	3.7	2.0
60	-	13.0	4.5	2.3
80	-	20.0	8.0	3.1
100	-	-	12.9	4.4
120	-	-	18.1	6.2
140	-	-	24.0	8.5
160	-	-	-	11.0
180	-	-	-	14.0
200	-	-	-	16.8

#### GB Series Valve Pressure Loss (psi)

Flow m <sup>3</sup> /h	Flow l/s	100-GB 1"	125-GB 1 1/4"	150-GB 1 1/2"	200-GB 2"
1	0,32	0,21	-	-	-
2	0,56	0,24	-	-	-
3	0,83	0,26	-	-	-
4	1,11	0,31	-	-	-
5	1,39	0,39	0,36	0,19	0,11
6	1,67	0,5	0,4	0,2	0,11
7	1,94	0,63	0,44	0,2	0,11
8	2,22	0,76	0,48	0,21	0,11
9	2,50	0,92	0,53	0,21	0,12
10	2,78	1,09	0,6	0,23	0,13
12	3,33	13,8	0,69	0,26	0,15
14	3,89	-	0,9	0,31	0,17
16	4,44	-	1,28	0,55	0,19
22	6,11	-	-	0,89	0,29
28	7,77	-	-	1,25	0,46
34	9,44	-	-	-	0,66
40	11,10	-	-	-	0,91
45	12,60	-	-	-	1,16

#### Notes

- 1) Loss values are with flow control fully open.
- 2) PRS-B module recommended for use below bold line.

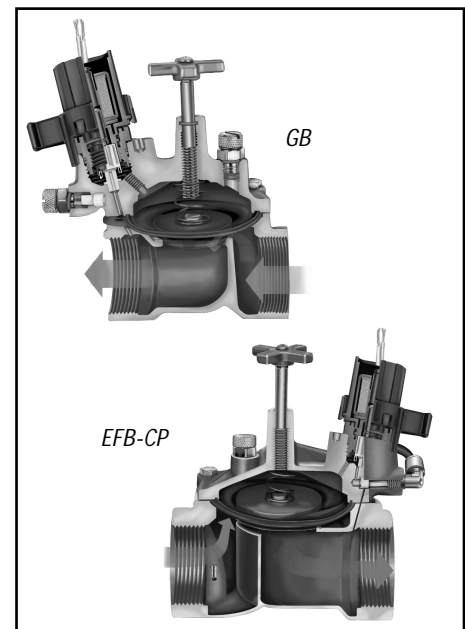
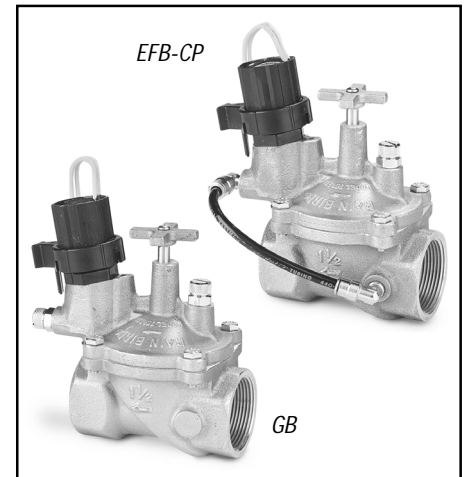
#### Recommendations

- 1) 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.
- 2) For flows below 5 GPM (1 m<sup>3</sup>/h; 32 l/s), Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm.
- 3) For flows below 10 GPM (2 m<sup>3</sup>/h; 63 l/s) Rain Bird recommends the flow control stem be turned down two full turns from the fully open position.

#### Dimensions

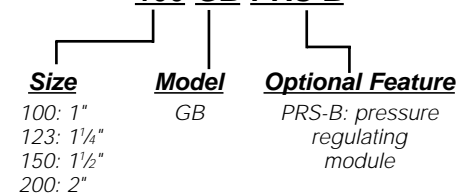
Size	Height	Length	Width
100-GB	6" (15,2 cm)	4 1/4" (11,4 cm)	2 1/4" (5,7 cm)
125-GB	5 1/4" (14,6 cm)	5" (12,7 cm)	3" (7,6 cm)
150-GB	6 1/2" (16,5 cm)	5 1/2" (14 cm)	4" (10,2 cm)
200-GB	7" (17,8 cm)	6 1/4" (17,1 cm)	5 1/4" (13,3 cm)
100-EFB-CP	6" (15,2 cm)	4 1/8" (11,4 cm)	3 1/4" (8,3 cm)
125-EFB-CP	5 3/4" (14,6 cm)	5" (12,7 cm)	3 1/4" (8,3 cm)
150-EFB-CP	6 1/2" (16,5 cm)	5 1/2" (14 cm)	4 1/2" (11,4 cm)
200-EFB-CP	7" (17,8 cm)	6 1/4" (17,1 cm)	5 1/4" (14,6 cm)

Note: The PRS-B option adds 2" (5,1 cm) to valve height.



#### How to Specify

##### 100-GB-PRS-B



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



## Specifications

The electric remote control valve shall be a normally closed 24 VAC 50/60 cycle solenoid actuated globe pattern with a balanced pressure diaphragm design capable of having a flow rate of \_\_\_\_\_ gallons per minute (GPM) with a pressure loss not to exceed \_\_\_\_\_ pounds per square inch (psi). The valve pressure rating shall not be less than 200 psi.

The valve body and bonnet shall be constructed of heavy cast red brass; diaphragm shall be of nylon reinforced nitrile rubber. All other internal parts shall be made of bronze, brass, and stainless steel to ensure corrosion resistance.

The valve shall have both internal and external manual open/close control (internal and external bleed) for manually opening and closing the valve without electrically energizing the solenoid. The valve shall have internal manual bleed to prevent flooding of the valve box. The valve shall house a fully-encapsulated, one-piece solenoid. The solenoid shall have a captured plunger with a removable retainer for easy servicing and a leverage handle for easy turning. This 24 VAC 50/60 Hz solenoid shall open with 19.6 VAC minimum at 200 psi. At 24 VAC average inrush current, it shall not exceed .41 amps. Average holding current shall not exceed .23 amps.

The valve shall have a stainless steel flow control stem and cross handle for regulating or shutting off the flow of water. The valve must open or close in less than one minute at 200 psi, and less than 30 seconds at 20 psi.

The valve construction shall be such as to provide for all internal parts to be removable from the top of the valve without disturbing the valve installation.

GB only: The valve shall have a control port filter screen to filter out grit and prevent clogging of hydraulic control ports.

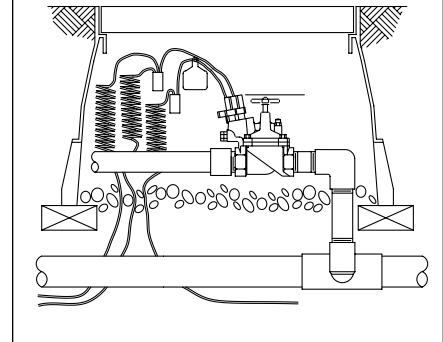
EFB-CP only: The valve shall have a contamination-proof (CP) self-flushing nylon filter screen located at the valve inlet to filter out grit and prevent clogging of hydraulic control ports and assure reliable operation.

## Optional Feature Specification

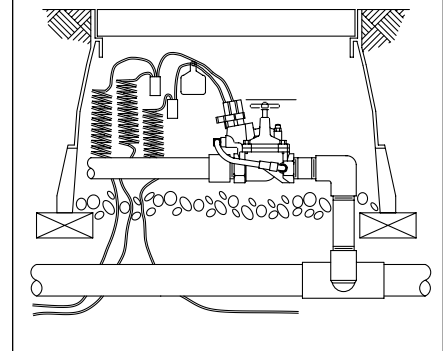
When so indicated on the design, the 1", 1½", 1¾", and 2" electric remote control valves shall have a pressure regulating module (PRS-B) capable of regulating outlet pressure between 15 and 100 psi ( $\pm 5$  psi). The PRS-B module shall have an adjusting screw for setting pressure and Schrader valve connection for monitoring pressure. Pressure shall be adjustable from the PRS-B when the valve is internally manually bled or electrically activated.

The valve shall be as manufactured by Rain Bird Sprinkler Mfg. Corp., Glendora, California.

Brass Electric Remote Control GB Valve



Brass Electric Remote Control EFB-CP Valve



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