

# EFB-CP IVM Series Valves

Classic Hardware. Innovative Performance.

TECHNICAL SPECIFICATIONS

## MODEL:



EFB-CP IVM

Electric remote control valves don't come any better than EFB IVM Series valves, which are reclaimed ready in order to handle the harsh conditions in non-potable water situations. Need a contamination-proof, self-flushing screen that cleans itself and resists debris build-up in dirty water? The EFB IVM's the one! Rain Bird brass valves offer long life and superior performance in high pressure applications.

## FEATURES:

- Diaphragm made of chlorine and chemical-resistant materials in order to handle the harsh conditions of non-potable water
- Red brass body and bonnet for longer life and more rugged performance at 200 psi (13.80 bar)
- 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
- 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

## OPERATING RANGE:

### Pressure

15 to 200 psi (1.04 to 13.80 bar)

### Flow with/without PRS-D

5 to 200 gpm (1.14 to 45.40 m<sup>3</sup>/h; 19.2 to 757 l/m)

### Temperature

up to 150° F (66° C)

## OPTIONS (ORDER SEPARATELY):

- Accommodates optional, field installed PRS-D pressure regulating module

## ELECTRICAL SPECIFICATIONS:

### Power

26.5 Vrms 50/60 Hz (cycles/sec)

### Inrush current

<40mA (Peak)

### Quiescent current

<0.4mA (ave.)

### Voltage range

15.6 - 29.2 Vrms

Compatible with LXIVM

controllers

## DIMENSIONS:

### IVM100EFB

Height: 6" (15.2 cm)  
Length: 4 1/2" (11.4 cm)  
Width: 3 1/4" (8.3 cm)

### IVM200EFB

Height: 7" (17.8 cm)  
Length: 6 3/4" (17.1 cm)  
Width: 5 3/4" (14.6 cm)

### IVM150EFB

Height: 6 1/2" (16.5 cm)  
Length: 5 1/2" (14 cm)  
Width: 4 1/2" (11.4 cm)

### Note:

The PRS-D option adds 2" (5.1 cm) to valve height.

## MODELS:

IVM100EFB 1"  
IVM150EFB 1 1/2"  
IVM200EFB 2"

\* BSP threads available; specify when ordering.

## HOW TO SPECIFY:

### IVM100 - EFB-CP - PRS-D

Size  
100: 1"  
150: 1 1/2"  
200: 2"

Model  
EFB-CP

Optional Feature  
PRS-Dial; pressure  
regulating module

### Note:

Valve and PRS-D module must be ordered separately.



**SPECIFICATIONS:**

The electric remote control valve shall be a normally closed 26.5 Vrms 50/60 Hz (cycles/sec) solenoid actuated globe pattern with a balanced pressure diaphragm design. The valve pressure rating shall not be less than 200 psi (13.80 bar). The valve shall have the following characteristics (circle one):

Flow rate: \_\_\_\_\_ gpm m3/h l/m

Pressure loss not to exceed: \_\_\_\_\_ psi bar

The valve body and bonnet shall be constructed of heavy cast red brass; diaphragm shall be of EPDM 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 26.5 Vrms 50/60 Hz solenoid shall open with 15.6 Vrms minimum at 200 psi (13.80 bar). At 26.5 Vrms, average inrush current shall not exceed 0.40 amps.

The valve shall have a stainless steel flow control stem with 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 (13.80 bar), and less than 30 seconds at 20 psi (1.38 bar).

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.

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

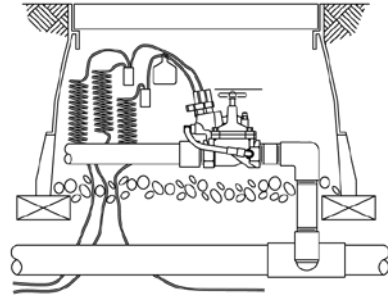
Brass Valves Pressure Loss (bar)				
FLOW M3/H	FLOW L/M	EFB-CP IVM		
		100	150	200
1	19	0.01		
3	50	0.07		
6	100	0.27	0.19	0.04
9	150	0.56	0.14	0.05
12	200	-	0.25	0.09
15	250	-	0.38	0.14
18	300	-	0.51	0.16
21	350	-	0.70	0.23
24	400	-	0.91	0.30
27	450	-	1.13	0.40
30	500	-	-	0.49
33	550	-	-	0.58
36	600	-	-	0.68
39	650	-	-	0.79
42	700	-	-	0.92
45	757	-	-	1.09

**OPTIONAL FEATURE SPECIFICATION:**

When so indicated on the design, the 1", 1 1/2", and 2" electric remote control valves shall have a pressure regulating module (PRS-D) capable of regulating outlet pressure between 15 and 100 psi (±3 psi) (1.04 and 6.90 bar (±0.21 bar)).

The PRS-D module shall have an adjusting knob for setting pressure and Schrader valve connection for monitoring pressure. Pressure shall be adjustable from the PRS-D when the valve is internally manually bled or electrically activated.

**Brass Electric Remote Control EFB-CP IVM Valve**



Brass Valves Pressure Loss (psi)			
FLOW GPM	EFB-CP IVM		
	100	150	200
5	0.2		
10	0.7		
15	1.2		
20	2.1	2.3	0.5
30	5.0	2.9	0.6
40	8.2	2.0	0.8
50	13.0	3.3	1.1
60	-	4.6	1.8
80	-	7.5	2.4
100	-	11.8	3.8
120	-	16.6	5.9
140	-	-	7.8
160	-	-	10.0
180	-	-	12.5
200	-	-	15.8

**Notes**

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

**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.

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