

PEB-IVM and PESB-IVM Series Valves

TECHNICAL SPECIFICATIONS

Designed to Outperform. Engineered to Outlast.

MODEL:



PESB-IVM

Pressure surges? Effluent water? Clogging debris? No problem. PEBIVM and PESBIVM Series valves offer long life and efficient, trouble-free performance—even under harsh conditions. Constructed of heavy-duty, glass-filled nylon, these valves resist clogging. And the PESBIVM model features an innovative scrubber to actively fight dirt, debris and particles.

FEATURES:

- Body constructed of durable glass-filled nylon for long life and heavy-duty performance at 200 psi (13.80 bar) pressure
- Stainless steel studs molded into the body; bonnet can be attached and removed more easily without damaging threads
- One-piece solenoid design with captured plunger and spring for easy servicing; prevents loss of parts during field service
- 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. For flows below 5 gpm (1.14 m³/h; 19.2 l/m) or any Xerigation application, install Rain Bird Y filter upstream
- Slow closing to prevent water hammer and subsequent system damage
- PESBIVM only: Scrubber scrapes its stainless steel screen clean to break down grit and plant material. Prevents debris build-up and clogging

OPERATING RANGE:

Pressure

20 to 200 psi (1.38 to 13.80 bar)

Flow with/without PRS-D

Flow: 0.25 to 200 gpm (0.06 to 45.40 m³/h; 1.2 to 757 l/m)

Flow with PRS-D: 5 to 200 gpm (1.14 to 45.40 m³/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 to ensure optimum sprinkler performance
- Optional purple flow control handles for non-potable water applications
 - PEB-NP-HAN1 (1")
 - PEB-NP-HAN2 (1 1/2" and 2")

ELECTRICAL SPECIFICATIONS:

Power

26.5 Vrms 50/60 Hz (cycles/sec)

Inrush current

<40mA (Peak)

Voltage range

15.6 - 29.2 Vrms

DIMENSIONS:

100

Height: 6 1/2" (16.5 cm)
Length: 4" (10.2 cm)
Width: 4" (10.2 cm)

150

Height: 8" (20.3 cm)
Length: 6" (15.2 cm)
Width: 6" (15.2 cm)

Quiescent current

<0.4mA (ave.)

Compatible with LXIVM controllers

200

Height: 8" (20.3 cm)
Length: 6" (15.2 cm)
Width: 6" (15.2 cm)

Note:

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

MODELS:

100PEBIVM and 100PESBIVM 1"
150PEBIVM and 150PESBIVM 1 1/2"
200PEBIVM and 200PESBIVM 2"

* BSP threads available; specify when ordering.

HOW TO SPECIFY:

100 - PEBIVM - PRS-D

Size	Model	Optional Feature
100: 1"	PEBIVM	PRS-Dial: pressure regulating module (must be ordered separately)
150: 1 1/2"	PESBIVM:	
200: 2"	scrubber model	

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.



SPECIFICATIONS:

The electric remote control valve shall be a normally closed 26.5 Vrms 50/60 Hz (cycles/sec) solenoid actuated globe pattern 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 shall be constructed of heavy-duty glass-filled UV-resistant nylon and have stainless steel studs and flange nuts; diaphragm shall be of nylon reinforced nitrile rubber.

The valve shall have both internal and external manual open/close control (internal and external bleed) to manually open and close the valve without electrically energizing the solenoid. The valve's internal bleed shall 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 latching solenoid shall open between 15.6 and 29.2 Vrms with an inrush current less than 40mA.

The valve shall have a brass flow control stem for accurate manual regulation and/or shut-off of outlet flow. The valve must open or close in less than 1 minute at 200 psi (13.80 bar), and less than 30 seconds at 20 psi (1.38 bar).

The PESBIVM valve shall have a self-cleaning stainless steel screen designed for use in dirty water applications.

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.

OPTIONAL FEATURE SPECIFICATION:

PRS-D Pressure Regulating Module

100PEBIVM-PRS-D, 150PEBIVM-PRS-D, 200PEBIVM-PRS-D
 100PESBIVM-PRS-D, 150PESBIVM-PRS-D, 200PESBIVM-PRS-D

When so indicated on the design, the 1", 1 1/2" and 2" electric remote control plastic 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)).

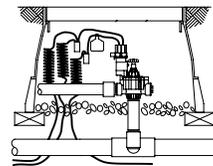
The PRS-D module shall have an adjusting knob for setting pressure and Schrader valve connection for monitoring pressure. The pressure shall be adjustable from the PRS-D when the valve is internally manually bled or electrically activated.

Non-Potable Flow Control Handle *

PEB-NP-HAN1-Fits 1" , PEB-NP-HAN2-Fits 1 1/2 and 2"

When so indicated on the design, the valve shall have a purple flow control handle to indicate to the user that non-potable water is being used. There shall be no difference between the black and purple handles except for the color.

**Rain Bird offers the PESBIVM-R reclaimed water valve and conversion kits for reclaimed water application. Please see Tech Spec D37338B, the Rain Bird catalog, or visit www.rainbird.com for more information.*



Plastic Electric Remote Control PEBIVM or PESBIVM Valve (with PRS-D)

PEBIVM and PESBIVM Series Valve Pressure Loss (psi)			
FLOW GPM	100 PEBIVM 1"	150 PEBIVM 1 1/2"	200 PEBIVM 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

Notes

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

Recommendations

- 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.
- 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.
- 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.

PEBIVM and PESBIVM Series Valve Pressure Loss (psi)				
FLOW M ³ /H	FLOW L/M	100PEBIVM 2.5CM	150PEBIVM 3.8CM	200PEBIVM 5.1CM
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

Rain Bird Corporation
 6991 East Southpoint Rd.
 Tucson, AZ 85756
 (520) 741-6100

Rain Bird Corporation
 970 West Sierra Madre Ave.
 Azusa, CA 91702
 (626) 812-3400

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www.rainbird.com