

# P-220 Series Plastic Valves

## V A L V E S

With superior regulation and a 15 Bar (220 PSI) rating, the P-220 Series gives you brass strength at a value price.

**25, 40, 50 & 75mm (1", 1½", 2" & 3")  
Electric and Pressure-Regulating Models**

### Features

- 15 Bar (220 PSI) maximum pressure rating
- Tough, 33% glass-filled nylon (GFN) and stainless-steel construction
- Globe/Angle configuration
- Rugged, reinforced bonnet design withstands tough and high-pressure applications
- Precise pressure control option with compact EZReg® dial-design technology (factory or field installed — no need to remove solenoid)
- Pressure regulates in electric and manual modes, serviceable under pressure
- Forward-flow design for more precise regulation
- Standard, built-in Schrader-type valve for downstream pressure verification
- Anti-vandal dust cap on pressure-regulating models
- No external tubing for either electric or pressure-regulating models
- Internal downstream manual bleed keeps valve box dry and allows for manually setting pressure regulation.
- External manual bleed for system flushing
- Ergonomic manual flow control: adjustable to zero flow
- Flow control independent of solenoid
- Tough, double-beaded, fabric-reinforced rubber diaphragm rated at 52 Bar (750 PSI) burst pressure
- Self-aligning bonnet to ensure correct installation
- Stainless-steel spare nut for convenience
- Skirt on flow control for debris resistance

External manual bleed screw

Ergonomic, manual flow control handle (removeable)

EZReg® pressure-regulating module or port plug

Standard Schrader valve for operating pressure readings

Anchored studs and nut design

Tough GFN bonnet for 15 bar (220 PSI) rating

Globe/angle body for 25mm (1") to 75mm (3") sizes

Aerospace locknut

Solenoid with captured hex plunger and spring

Debris skirt

Internal manual bleed

Spare nut

Brass flow control stem on 50mm (2") and 75mm (3") (not illustrated)

Fabric reinforced 52 bar (750 PSI) rated, double-beaded diaphragm

Self-cleaning, stainless-steel metering rod

O-ring seal cap plug



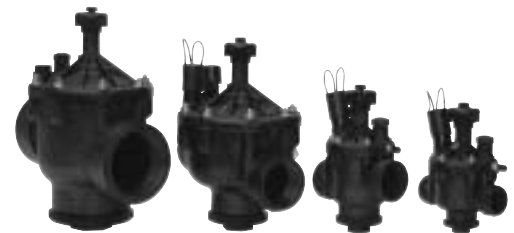
**DC latching solenoid assembly**



**EZReg® pressure-regulation module**



**Effluent water solenoid assembly and tag (RW60-Kit) available.**



**P-220 Series**

- Self-cleaning, stainless-steel metering rod
- Brass flow control stem — 50mm and 75mm (2" and 3") models
- Positive O-ring seal on inlet plug prevents leaks
- Low-flow capability down to 20 LPM (5 GPM) with EZReg®
- Easily serviced without system removal
- Proven, encapsulated, injection-molded solenoid with captured hex plunger and spring
- Purple solenoid models available for effluent applications
- Accepts latching solenoids
- Low-power requirement for longer wire runs
- 45cm (18") lead wires for easy installation
- Extended 5-year warranty

# P-220 Series Plastic Valves

## Specifications

- Recommended flow range:
  - 25mm—19–114 LPM (1" — 5–30 GPM)
  - 40mm—114–265 LPM (1½" — 30–70 GPM)
  - 50mm—300–530 LPM (2" — 80–140 GPM)
  - 75mm—568–852 LPM (3" — 150–225 GPM)
- Operating pressure:
  - Electric — 0,7–15 Bar (10–220 PSI)
  - Pressure regulating models:
    - Outlet: EZR-30 0.3–2.0 Bar, ± 0.2 Bar (5–30 PSI, ± 3 PSI)
    - Outlet: EZR-100 0.3–7.0 Bar, ± 0.2 Bar (5–100 PSI, ± 3 PSI)
    - Inlet: 1.0–15 Bar (15–220 PSI)
    - Minimum pressure differential (between inlet and outlet): 0.7 Bar (10 PSI)
- Burst pressure safety rating: 52 Bar (750 PSI)
- Body styles:
  - Globe/angle valve — 25mm, 40mm, 50mm, 75mm (1", 1½", 2" and 3") female threads
- Solenoid: 60 Hz 24 V.a.c.
  - Inrush: 0.40 amps, 11.50 VA
  - Holding: 0.20 amps, 5.75 VA
- Solenoid: 50 Hz 24 V.a.c.
  - Inrush: 0.34 amps, 11.50 VA
  - Holding: 0.20 amps, 5.75 VA

- Dimensions:
  - 25mm - 171mm x 92mm (1" - 6¾" H x 3⅝" W)
  - 40mm - 184mm x 92mm (1½" - 7¼" H x 3⅝" W)
  - 50mm - 241mm x 156mm (2" - 9½" H x 6⅛" W)
  - 75mm - 273mm x 156mm (3" - 10¾" H x 6⅛" W)

## Options Available

- DC Latching solenoid assembly
- 24 V DC solenoid assembly (R576804)
- 24 V.a.c. 60 Hz solenoid assembly (R811-24VACG)
- 24 V.a.c. 50 Hz solenoid assembly (588403)
- Reclaimed water purple solenoid assembly and tag (RW60-Kit)
- 24 V.a.c. potted solenoid assembly (89–9580)
  - 50–60 Hz, 60cm (24") leads
  - Inrush: 0.37 amps, 8.80 VA
  - Holding: 0.30 amps, 7.20 VA
- EZR-30 — 0.3–2.0 Bar (5–30 PSI) pressure-regulation module
- EZR-100 — 0.3–7.0 Bar (5–100 PSI) pressure-regulation module
- NPT/BSP threads
- Less solenoid versions — 25mm, 40mm, 50mm, 75mm (1", 1½", 2", 3")

P-220 Series Friction Loss Data – Metric – LPM Flow

Size	Configuration	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	
25mm (1")	Globe	0,29	0,25	0,25	0,26	0,32	0,43	0,55	0,69	0,82														
	Angle	0,29	0,25	0,21	0,20	0,21	0,29	0,38	0,49	0,61														
40mm (1.5")	Globe					0,12	0,14	0,18	0,23	0,28	0,43	0,62	0,85	1,11										
	Angle					0,09	0,10	0,13	0,17	0,22	0,34	0,48	0,65	0,85										
50mm (2")	Globe										0,14	0,20	0,25	0,32	0,40	0,48	0,54							
	Angle										0,08	0,12	0,15	0,19	0,24	0,29	0,32							
75mm (3")	Globe																0,18	0,24	0,32	0,41	0,52	0,65		
	Angle																0,14	0,19	0,26	0,34	0,43	0,54		

Flow rates are recommended not to exceed 0,35 Bar loss. Values shown in Bar. For kPa values, multiply tabular values by 100. For Kg/cm<sup>2</sup> values, multiply tabular values by 1,02.

P-220 Series Friction Loss Data – English – GPM Flow

Size	Configuration	5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	180	200	225	250	275	300	
1"	Globe	4.00	4.20	3.20	4.10	7.20	10.90																	
	Angle	4.00	4.20	3.10	2.70	4.80	7.90																	
1½"	Globe				1.60	2.30	3.60	5.20	7.00	9.20	11.70	14.40	17.50											
	Angle				1.30	1.60	2.80	4.00	5.50	7.10	9.00	11.00	13.30											
2"	Globe									2.10	2.70	3.30	4.00	4.80	5.60	6.50	7.50	8.05						
	Angle									1.20	1.60	2.00	2.40	2.80	3.30	3.90	4.40	5.10						
3"	Globe																2.50	3.00	4.10	5.30	6.70	8.30	10.10	
	Angle																1.90	2.40	3.30	4.30	5.50	6.90	8.50	

Note: For optimum performance when designing a system, be sure to calculate total friction loss to ensure sufficient downstream pressure. For optimum regulation performance, size regulating valves toward the higher flow ranges. Flow rates are recommended not to exceed 5 PSI loss. Values shown in PSI.

## Specifying Information

P220  XX  X  X

Type	Configuration	Solenoid	Size
P220—	23—BSP, Electric	0—60 Hz Solenoid	4—25mm (1")
P220 Series	24—BSP, Pressure-Regulated (5–100 PSI)	5—50 Hz Solenoid	6—40mm (1½")
Plastic Valve	26—NPT, Electric	6—Less Solenoid	8—50mm (2")
	27—NPT, Pressure-Regulated (5–100 PSI)		0—75mm (3")

For Example:  
When specifying a 25mm (1") P-220 Series plastic electric, 50 Hz solenoid BSP threads, pressure-regulating valve, you would specify:

**P220-24-54**

Note: Less solenoid available in 25, 40, 50 and 75mm (1", 1½", 2" and 3") electric NPT and BSP versions only.



**Count on it.**

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