

P-220 Series

- 1", 1½", 2", 3" NPT and BSP
- Electric
- Pressure-regulating
- Globe, Angle



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For proven reliability in the field, the Toro® P-220 Series valves deliver. Constructed of heavy-duty, glass-filled nylon material, these valves are ready to consistently withstand pressures up to 15,1 Bar (220 PSI).

Features & Benefits

Durable Glass-Filled Nylon

Ensures the P-220 can operate at pressures up to 15,1 Bar (220 psi).

Precise Pressure Control Option

Compact EZReg® dial-design technology (factory or field installed - no need to remove solenoid).

Internal And External Manual Bleed

Keeps valve box dry and easy to use.

Schrader Valve Pre-Installed

Simple verification of downstream pressure.

Optional Spike-Guard™ Solenoid

Reduces wire size requirements, allows twice as many valves to run simultaneously on a transformer, and lowers power costs.

Filter Screen On 2" & 3" Models

Allows for upstream filtration of water to ensure no clogging occurs inside the valve.



Water Management Highlight



Pressure Regulator

The EZReg® module can regulate with flows of only 0,3 Bar (5 GPM) with a 25mm (1") valve and it only requires 0,7 Bar (10 psi) differential to operate. The pressure regulator can be easily and quickly installed—even under pressure, with no danger of water geysers.



Specifications

Dimensions

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

Operating Specifications

- Flow Range:
 - 1": 18,9-132,5 LPM (5-35 GPM)
 - 1½": 113,6-416,4 LPM (30-110 GPM)
 - 2": 302,8-681,4 LPM (80-180 GPM)
 - 3": 567,8-1135,6 LPM (150-300 GPM)
- Operating Pressure:
 - Electric: 0,7-15 Bar (10-220 psi)
- Pressure regulating:
 - Outlet (EZR-30): 0,3-2,0 Bar (5-30 psi ± 3)
 - Outlet (EZR-100): 0,3-7,0 Bar (5-100 psi ± 3)
- Inlet: 0,7-15,0 Bar (10-220 psi)
- Minimum pressure differential (between inlet and outlet) for pressure regulation: 0,7 Bar (10 psi)
- Burst pressure safety rating: 51,7 Bar (750 psi)
- Body styles:
 - Globe/Angle: 25, 40, 50, 75mm (1", 1½", 2", 3") female threads
- 118-5983 Solenoid: 24 VAC (50 Hz)
 - Inrush: 50 Hz: 0.34 amps
 - Holding: 50 Hz: 0.2 amps

Options Available

- EZR-30 - EZReg, 0,3-2,1 Bar (5-30 psi) Regulator Module
- EZR-100 - EZReg, 5-100 psi (0,3-7,0 Bar) Regulator Module
- EFF-KIT-50Hz - Effluent Water (Lavender) Solenoid Assembly (24 VAC, 50 Hz) and Warning Tag
- 118-5983 - 24 VAC Solenoid Assembly, 50 Hz, 457mm (18") Leads, Captive Plunger
- DCLS-P - Potted DC Latching Solenoid Assembly

Additional features

- Tough glass-filled nylon and stainless steel construction
- Internal and External bleed
- Pressure regulates in electric or pressure-regulating models
- No external tubing for either pressure-regulating model
- Standard, built-in Schrader-type valve for downstream pressure verification
- Flow control independent of solenoid
- Self-aligning bonnet to ensure correct installation
- Self-cleaning, stainless steel metering rod
- Low-flow capability down to 18,9 LPM (5 GPM) with EZReg
- Low-power requirement for longer wire runs

Warranty

- Five years

P-220 Series BSP Thread Model List

Model	Description
P220-23-54	Electric, In-Line 1" BSP Plastic Valve, 50 Hz Solenoid
P220-23-56	Electric, In-Line 1½" BSP Plastic Valve, 50 Hz Solenoid
P220-23-58	Electric, In-Line 2" BSP Plastic Valve, 50 Hz Solenoid
P220-23-50	Electric, Angle 3" BSP Plastic Valve, 50 Hz Solenoid
With D.C. Latching Solenoid	
P220-23-94	Electric, In-Line 1" BSP Plastic, with DCLS-P latching solenoid pre-installed
P220-23-96	Electric, In-Line 1½" BSP Plastic, with DCLS-P latching solenoid pre-installed
P220-23-98	Electric, In-Line 2" BSP Plastic, with DCLS-P latching solenoid pre-installed
P220-23-90	Electric, Angle 3" BSP Plastic, with DCLS-P latching solenoid pre-installed

P-220 Series Friction Loss Data*—Metric

Size	Configuration	LPM Flow																					
		40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100
1"	Globe	0,29	0,25	0,25	0,26	0,32	0,43	0,55	0,69	0,82													
	Angle	0,29	0,35	0,21	0,20	0,21	0,29	0,38	0,49	0,61													
1½"	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									
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	0,32				
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

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 0,3 Bar loss.
 Values shown in Bar. For kPa values, multiply tabular values by 100. For Kg/cm² values, multiply tabular values by 1,02.
 * Data taken with EZReg pressure regulation device installed. Data remains the same with or without pressure regulation.

Specifying Information—P220

P220-2X-X-X				
Model	Activation Type	Solenoid	Size	
P220	2X	X	X	
P220—P-220 Series Plastic Valve	23—BSP 26—NPT, Electric 27—NPT, Pressure-regulated EZR-100 (Standard)	0—60 Hz Solenoid 5—50 Hz Solenoid 9—DC Latching Solenoid	4—1" 6—1½"	8—2" 0—3"
Example: A 1" P-220 Series plastic electric, pressure-regulating valve would be specified as: P220-27-04				