PROPORTIONAL PRESSURE REDUCING VALVE

Model 720-PD

Hydraulically operated, diaphragm actuated, pressure reducing control valve that reduces higher upstream pressure to lower downstream pressure at a fixed ratio. The fixed pressure reducing ratio is determined with regard to valve size and plug type.

The BERMAD 700 SIGMA EN/ES series valves are hydraulic globe valves with a raised seat and double chamber actuator. They provide unobstructed flow, effective high-pressure modulation, and minimal cavitation, complying with various potable water standards.



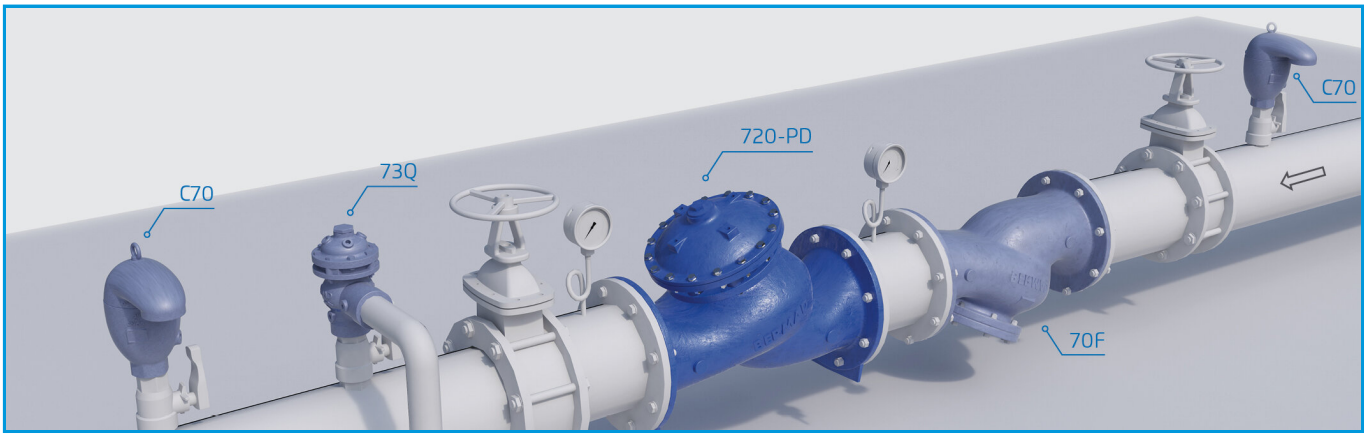
Features & Benefits

- Certified to functional and drinking water standards: EN-1074, NSF-ANSI 61-372, WRAS, AS 5081 and others
- Designed to - Stand up to the toughest conditions
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability
  - Drip tight sealing
- Double chamber design
  - Moderated valve reaction
  - Protected diaphragm
  - Optional operation in very low pressure
  - Moderated closing curve
- Flexible design - Easy addition of features
- Obstacle free flow pass
- V-Port throttling plug (optional) - Very stable at low flow
- High quality materials
- In-line serviceable - Easy maintenance

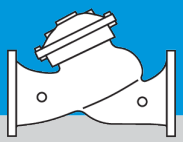
Typical Applications

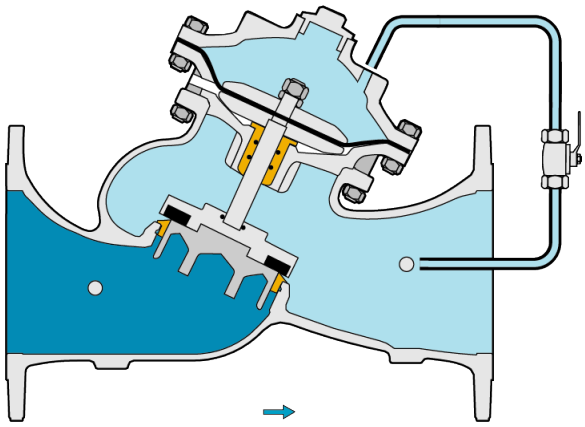
- First stage at a two stage pressure reducing system
- Municipal and national systems - Reducing pressure at downhill pipe lines
- Highrise and midrise buildings - Two stage pressure reduction at the pressure zone inlet
- Pumping stations - Minimize cavitation and noise in circulation valves

Typical Installation

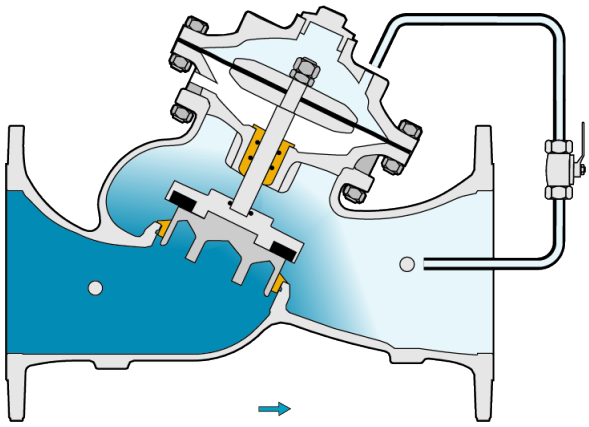


All images in this catalog are for illustration only





Closed (no system demand)



Regulating

This drawing refers to 1½ – 24"; 40-600 mm sized valves only. For other sizes please refer to the Model's IOM.

Main Valve

Size Range:
EN Series: 1½"-16"; DN40-400
ES Series: 2½"-24"; DN65-600
Pattern: "Y" (globe)
Pressure Rating: 16 bar; 25 bar
End Connection: Flanged
Plug Types: Flat disc, V-port, Single cavitation cage
Temperature Rating: 80°C
For 60–80°C consult factory

Standard Materials:

Body & Cover: Ductile Iron
Bolts, Nuts & Studs: Stainless Steel
Internals: Stainless Steel, Tin Bronze, Coated Steel & POM
Diaphragm: Fabric-reinforced synthetic rubber
Seals: Synthetic rubber
Coating: Dark blue Fusion bonded epoxy
For other materials contact BERMAD

Control System

Standard Materials:

Accessories: Stainless Steel, Bronze & Brass
Tubing: Stainless Steel or Copper
Fittings: Stainless Steel or Brass

Reduction Ratios Table:

Valve Size		PD				PD2			
		700 ES		700 EN		700 ES		700 EN	
		Min	Max	Min	Max	Min	Max	Min	Max
1½"	DN40	-	-	2.8	3.2	-	-	2.0	2.4
2"	DN50	-	-	2.8	3.2	-	-	2.0	2.4
2½"	DN65	2.8	3.2	2.8	3.2	2.0	2.4	2.0	2.4
3"	DN80	2.8	3.2	2.7	3.0	2.0	2.4	2.0	2.4
4"	DN100	2.7	3.0	2.6	2.9	2.0	2.4	2.0	2.4
5"	DN125	2.8	3.2	-	-	2.0	2.4	-	-
6"	DN150	2.5	2.8	2.4	2.7	-	-	-	-
8"	DN200	2.4	2.7	2.3	2.6	-	-	-	-
10"	DN250	2.3	2.6	2.2	2.5	-	-	-	-
12"	DN300	2.2	2.5	2.1	2.4	-	-	-	-
14"	DN350	2.1	2.4	-	-	-	-	-	-
16"	DN400	2.1	2.4	2.1	2.3	-	-	-	-
18"	DN450	2.1	2.3	-	-	-	-	-	-
20"	DN500	2.1	2.3	-	-	-	-	-	-
24"	DN600	2.1	2.3	-	-	-	-	-	-

Notes

- Recommended continuous flow velocity: 0.1-6.0 m/sec; 0.3-20 ft/sec.
- Minimum operating pressure: 0.7 bar; 10 psi.
- Reduction ratio is proportional to the valve opening rate, which vary due to changes in flow rate and pressures.
- Reduction ratios are based on flow velocity of 2.0-3.0 m / sec; 6.5-10 ft /sec.

For detailed Engineering & Specification data, IOM and CAD Drawings, visit the Model Page on the BERMAD website.

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