



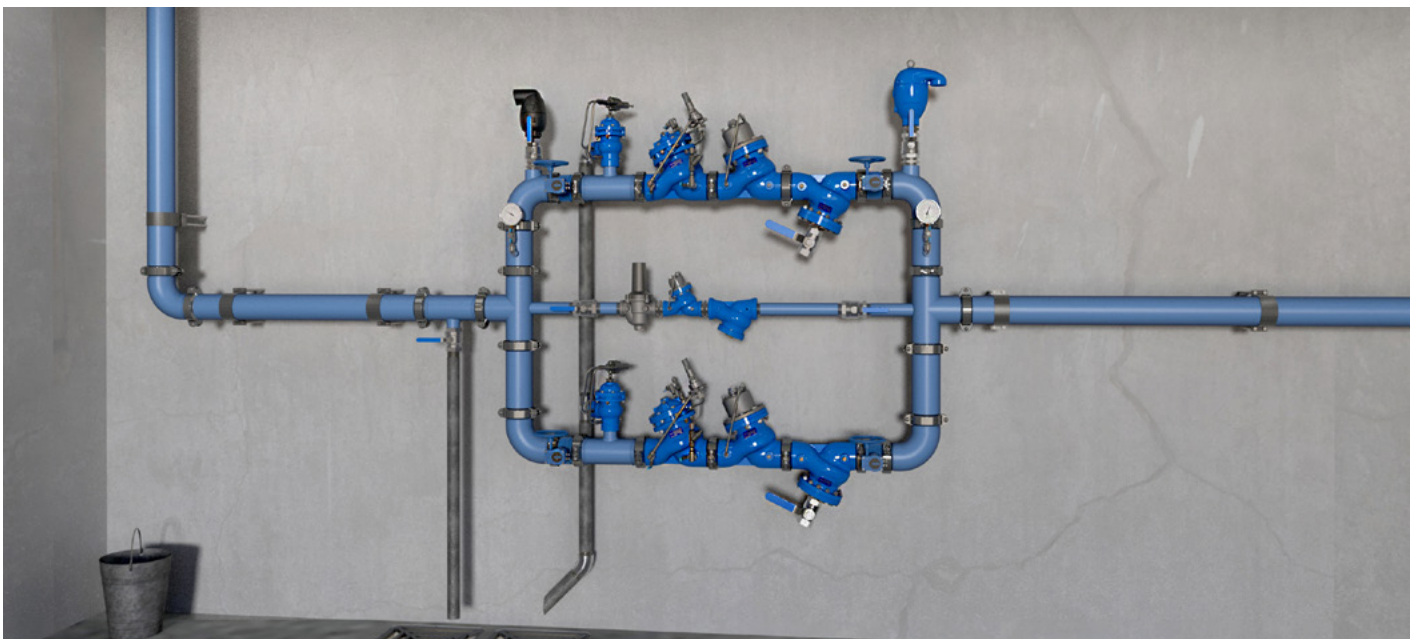
## PROPORTIONAL PRESSURE REDUCING VALVE

### HIGH PRESSURE

#### Model BC-820-PP-P

Hydraulically operated, piston actuated pressure reducing control valve that reduces a high upstream pressure to a lower downstream pressure at a fixed ratio

BERMAD 800 series valves are hydraulic, oblique pattern, globe valves with double chamber unitized actuator, that can be disassembled from the body as a separate integral unit. The valves hydrodynamic body is designed for unobstructed flow path and provides excellent and highly effective modulation capacity for high differential pressure applications.



**Two-Stage Pressure Reducing Station**, featuring BERMAD BC-820-PP-P valves to reduce the incoming pressure by a fixed ratio and share the load with the BERMAD BC-720-P PRV, a redundant, parallel branch to minimize the possibility of total water shut-off and a low flow

bypass branch for low demand operation. For information on the other BERMAD products in this system please see the product data sheet for the following components: BERMAD BC-720-P, BERMAD BC-73Q-P and BERMAD BC-80F-P.

### Typical Application

- "Steps down" pressure when pressure reduction must be done in two or more stages of reduction
- Decreases the potential for high noise levels and cavitation damage caused by high reduction ratios
- Reduces the differential pressure load across level control or pressure relief valves by splitting that load between two valves instead of one

**NOTE:** The BERMAD BC-820-PP-P is designed for high operating pressures. For lower operating pressures, consider the BERMAD BC-720-PD-P.



## Features and Benefits

- High Quality Construction Materials – Reliable, resilient and long lasting operation
- Robust Design – Suitable for constant, intense operation
- In-Line Serviceable – Quick and easy maintenance and service
- Line Pressure Driven – Independent operation, no external power needed
- Hydrodynamic Body with Unobstructed Flow Path – Minimal noise and cavitation damage
- Double Chamber Actuator – Rapid response to system changes with no hammer effect
- V-Port Throttling Plug – Low flow stability

## Technical Data

### General:

**End connections:**  
Grooved / Flanged / Threaded  
**Pressure Rating:** 600 psi; PN40  
**Valve Pattern:** Y (Oblique) / Angle  
**Working Temperature:**  
Cold Water up to 140°F; 60°C  
**Optional Higher Temperatures:**  
Available on request

### Main Valve Materials:

**Body:**  
Standard: Ductile Iron  
Optional: Stainless Steel 316  
Cover (cylinder): Stainless Steel 316  
**Seat:** Stainless Steel  
**Internals:**  
Stainless Steel, Tin Bronze & Coated Steel  
**Seals:** Synthetic rubber  
**Coating:** Blue Fusion bonded epoxy

### Control Trim Materials:

**Control Accessories:**  
Stainless Steel / Bronze & Brass  
**Tubing:** Stainless Steel / Copper  
**Fittings:** Stainless Steel / Brass

**Note:** Reduction ratios range (P1/P2) from 2.2 to 2.5. The reduction ratios are influenced by the valve size.

\* For other optional material consult BERMAD.  
\*\* Materials may vary according to sanitary standard.

## How to Order

Please Specify the requested valve in the following sequence:

BERMAD Segment	Size <sup>1</sup>	Model	Series	Approval Group	End Connections & Pressure Rating
BC	4"	820-PP	EN	P1	40

Buildings & Constructions	Inch mm	Series	Potable Water <sup>2</sup>	Up to 600 psi / PN40	
	1½"	40	Classic <b>00</b>	European Standards	<b>P1</b>
2"	50	Sigma EN <b>EN</b>	NSF 61/372	<b>P2</b>	ANSI C606
2½"	65	Sigma ES <b>ES</b>	Australia Standards	<b>P3</b>	BS 1378
3"	80		Unregistered	<b>P0</b>	ISO-40
4"	100				ANSI300
6"	150				Threaded
8"	200				BSP
10"	250				NPT
12"	300				

Ordering code would be

BC-4"-820-PP-EN-P1-16

1. Larger sizes available on request
2. BERMAD complies with a wide range of international potable water standards. Please consult with BERMAD about compliance.



NSF 61/372  
USA



Bulgarkontrola  
Bulgaria



GOST  
Russia



PZH  
Poland