

# BERMAD Buildings & Construction

Potable Water • Pressure Control



700 Series  
Model BC-720-2B

## PRESSURE REDUCING VALVE

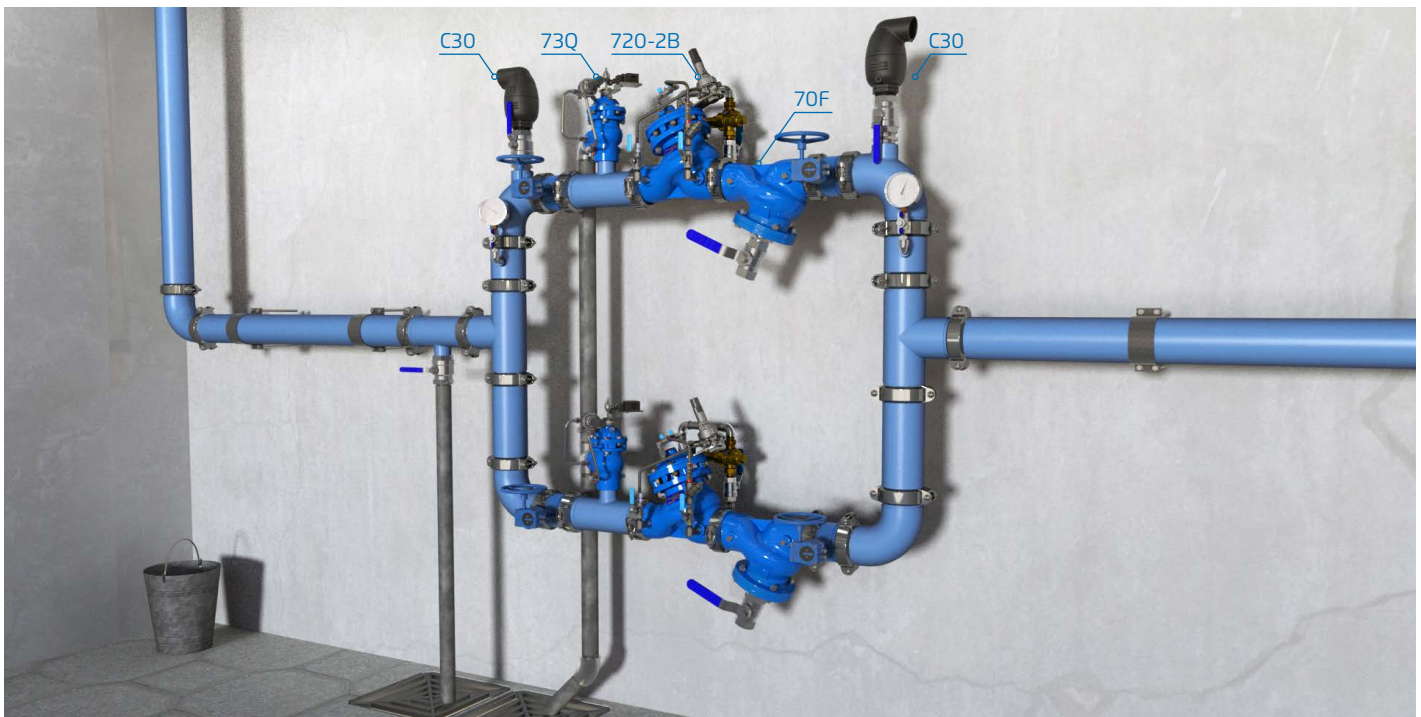
### With Low Flow Bypass

#### Model 720-2B

Hydraulically operated, diaphragm actuated pressure reducing control valve that reduces a high upstream pressure to a lower constant downstream pressure, regardless of fluctuating demand or varying upstream pressure.

The model includes a low flow bypass regulated with a Direct Acting Pressure Reducing valve mounted on the valve body.

BERMAD 700 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.



**Pressure Reducing Station**, featuring BERMAD 720-2B valves to reduce high incoming pressure to a lower downstream set-point, a redundant, parallel branch to minimize the possibility of total water shut-off. The embedded low flow by-pass saves on installation of another small

flow branch. For information on the other BERMAD products in this system please see the product data sheet for the BERMAD 73Q and BERMAD 70F.

### Typical Application

- For pressure control of potable water supply lines in buildings operating under tough conditions and intensive use, where maintaining accurate and stable pressure is vital
- In the main supply lines of hi-rise buildings where the building's lower zones are exposed to excessive pressure
- In parallel redundant branches where uninterrupted water supply systems are required
- Adjacent to prestigious residential and office spaces where extraneous noise and maintenance activities are to be avoided
- When a single valve needs to service a wide range of flows

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## 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
- Unitized Actuator Assembly - Minimal downtime
- Hydrodynamic Body with Unobstructed Flow Path - Minimal noise and cavitation damage
- Protected Diaphragm - Minimizes chance of damage caused by debris in the pipeline
- Two-way pilot and control loop that continuously sense the downstream pressure and immediately control the valve accordingly - stable, reliable and accurate pressure modulation in wide range of flow-rates and varying pressure.
- Pilot and control loop constructed from heavy duty environment friendly materials - long lasting and reliable operation.
- Integrated by-pass and V-Port Throttling Plug - stability in wide range of flows

## Technical Data

### End Connections:

Grooved, Flanged, Threaded

**Pressure Rating:** 400 psi; PN 25

**Valve Pattern:** Y (Oblique), Angle

**Working Temperature:**

Water up to 140°F; 60°C

**Optional Higher Temperature:**

Available on request

### Main Valve Materials:

**Body, Cover and Partition:**

**Standard:** Ductile Iron

**Optional:** Stainless Steel 316

**Seat:** Stainless Steel

**Internals:** Stainless Steel, Bronze & Coated Steel, POM

**Diaphragm:** Fabric-reinforced synthetic rubber

**Seals:** Synthetic rubber

**Coating:** Blue Fusion bonded epoxy

### Control Trim Materials:

**Control Accessories:**

Stainless Steel / Bronze and Brass

**Tubing:** Stainless Steel / Copper

**Fittings:** Stainless Steel / Brass

**Note:**

Outlet pressure range 1-6 bar; 15-90 psi.

\* 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:

**BC - 2" - 720-2B - 00 - P2 - Y - C**

<b>Segment</b>	<b>Model</b>	<b>End Connection</b>	<b>Standard</b>	<b>Code</b>
BC	720-2B	Up to 250 psi / PN16	ANSI C606	VI
<b>Size</b>	<b>Series</b>	<b>Grooved</b>	BS 1387	VB
1½" DN40	Classic	ISO-16	ABNT16	B6
2" DN50	Sigma EN	ANSI 150	AST-*	A5
2½" DN65	Sigma ES	BSPT	NPT	NP
3" DN80				
4" DN100	<b>Potable water Compatibility</b>			
6" DN150	Approved			
8" DN200	Unregistered			
10" DN250				
12" DN300				
14" DN350	<b>Orientation</b>			
16" DN400	Y Oblique			
18" DN450	Angle			
20" DN500				
24" DN600				
	<b>Construction Material</b>			
	Ductile Iron			
	Stainless Steel 316			

<b>End Connection</b>	<b>Standard</b>	<b>Code</b>
Up to 250 psi / PN16	ANSI C606	VI
<b>Grooved</b>	BS 1387	VB
ISO-16	ABNT16	B6
ANSI 150	AST-*	A5
BSPT	NPT	NP
250-400 psi / PN25	ANSI C606	V2
<b>Grooved</b>	BS 1387	VD
ISO-25	ABNT25	B2
ANSI 300	BSPT	PH
NPT		NH

### Additional Configurations & Options

<b>Coating</b>	<b>Code</b>	<b>Additional Attributes (Multiple Options Permitted)</b>	<b>Code</b>
Epoxy Blue	EB	V-Port Throttling Plug	V
Epoxy Blue with UV Protection	EV	Valve Position Indicator	I
Uncoated	UC	Limit Switch	S
		Flow Stem	M
		Double Chamber (Active)	B
		3-Way Control	X
		<b>St. St. 316 All Control Accessories</b>	<b>N</b>
		Pressure Gauge	6
		Orifice Assembly	U
		Large Control Filter	F
		In Line Filter	C
		Manual Selector	Z
<b>Solenoid Voltage</b>	<b>Code</b>	<b>Tubings &amp; Fittings</b>	<b>Code</b>
No Solenoid	000	Copper Tubing & Brass Fittings	CB
24VAC/50Hz	4A	<b>Stainless Tubing &amp; Fittings</b>	<b>NN</b>
24VAC/60Hz	46		
24VDC	4D		
220VAC/50-60Hz	2A		
220VDC	2D		
110VAC/50-60Hz	5A		
110VDC	5D		
12VDC	1D		
<b>Main Valve Position (When Solenoid De-energized)</b>	<b>Code</b>		
Normally Closed	C		
Normally Open	O		
Last Position	P		
Latch Solenoid	S		



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