



## SURGE ANTICIPATING CONTROL VALVE

with Solenoid Control

### Model BC-735-55-P

The Model BC-735-55-P Surge Anticipating Valve with Solenoid Control is an off-line, hydraulically operated, diaphragm actuated valve. The valve immediately opens in direct response to any power failure even prior to the pressure drop associated with abrupt pump stoppage. The pre-opened valve dissipates the returning high pressure wave, eliminating the surge. The BC-735-55-P, sensing line pressure, smoothly closes drip-tight as quickly as the relief feature allows, while preventing closing surge. The valve also relieves excessive system pressure.

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 valve's hydrodynamic body is designed for unobstructed flow path and provides excellent and highly effective modulation capacity for high differential pressure applications.



A soft start/stop pump station with emergency surge protection - in a case of power failure the UPS backed controller will activate the 735-55 to open immediately and anticipate any returning surge

from the riser, thus reducing water hammer damage and prolonging equipment lifetime.

### Typical Application

- Transfer pumps systems
- Direct supply pumps
- Includes excessive pressure relief
- Where discharge line is short and wave critical time is less than 3 seconds



## Features and Benefits

- Replaces surge air vessels - Economy of space, lower investment and maintenance costs
- Adjustable Excessive Pressure Pilot - Easy field pressure setting and calibration
- 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 with solenoid trigger
- 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

**Note:** the model comes equipped with flow stem for sizing flexibility

## Technical Data

### General:

#### End connections:

Grooved / Flanged / Threaded

**Pressure Rating:** 400 psi; PN25

**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, Cover and Partition:

Standard: Ductile Iron

Optional: Stainless Steel 316

**Seat:** Stainless Steel

#### Internals:

Stainless Steel, Tin Bronze & Coated Steel

#### Diaphragm:

Fabric-reinforced synthetic rubber

**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

#### Solenoid:

**Body:** Stainless Steel / Brass

**Elastomers:** NBR or FPM

**Enclosure:** Molded Epoxy

\* 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	Solenoid	Ordering code would be							
BC	4"	735-55	EN	P1	16	4AC	BC-4"-735-55-EN-P1-16-4AC							
Buildings & Constructions	Inch mm		Series	Potable Water <sup>2</sup>	Up to 250 psi / PN16		Solenoid Configuration							
	1½" 40	Classic	00	European Standards	P1	Grooved		ANSI C606 BS 1378	VI	24V <sup>4</sup>	Normally Closed <sup>3</sup>	AC 50Hz	4AC	
	2" 50	Sigma EN	EN	NSF 61/372	P2							VB	AC 60Hz	46C
	2½" 65	Sigma ES	ES	Australia Standards	P3	Flanged		ISO-16 ABNT16 ANSI 150 AST-*	16	A5	S*	Normally Open <sup>3</sup>	DC	4DC
	3" 80			Unregistered	P0								B6	AC 50Hz
	4" 100					A5		AC 60Hz	460					
	6" 150					S*		DC	400					
	8" 200					BP								
	10" 250					NP								
	12" 300													
					250-400 psi / PN25									
					Grooved	ANSI C606 BS 1378	V2	VB						
									25					
					Flanged	ISO-25 ABNT25 ANSI 300	B2	A3						
									PH					
					Threaded	BSP NPT	PH	NH						
									NH					

1. Larger sizes available on request
2. BERMAD complies with a wide range of international potable water standards. Please consult with BERMAD about compliance.
3. Valve Position when Solenoid is De-Energized
4. Other voltage available.



NSF 61/372 USA



Bulgarkontrola Bulgaria



ACS France



GOST Russia



PZH Poland

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