



SURGE ANTICIPATING CONTROL VALVE

with Solenoid Control

Model 735-55-M

The Model 735-55 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 735-55-M, 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-M 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

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, POM

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: Synthetic Rubber

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:

BC - 2" - 735-55 - 00 - P2 - Y - C - VI - EB - 4AC - NN - MN

Segment	Model	End Connection	Standard	Code	Coating	Code	Additional Attributes (Multiple Options Permitted)	Code
BC	735-55	Up to 250 psi / PN16	ANSI C606	VI	Epoxy Blue	EB	V-Port Throttling Plug	V
Size	Series	Grooved	BS 1387	VB	Epoxy Blue with UV Protection	EV	Valve Position Indicator	I
1½" DN40	Classic	Flanged (Other standards available)	ISO-16	16	Uncoated	UC	Limit Switch	S
2" DN50	Sigma EN	Threaded	ABNT16	B6			Flow Stem	M
2½" DN65	Sigma ES		ANSI 150	A5			Double Chamber (Active)	B
3" DN80			AST-*	S*			3-Way Control	X
4" DN100	Potable water Compatibility		BSPT	BP	Solenoid Voltage		St.St. 316 All Control Accessories	N
6" DN150	Code		NPT	NP	No Solenoid	000	Pressure Gauge	6
8" DN200	Approved				24VAC/50Hz	4A	Orifice Assembly	U
10" DN250	Unregistered				24VAC/60Hz	46	Large Control Filter	F
12" DN300					24VDC	4D	In Line Filter	C
14" DN350	Orientation				220VAC/50-60Hz	2A	Manual Selector	Z
16" DN400	Code				220VDC	2D		
18" DN450	Y Oblique				110VAC/50-60Hz	5A		
20" DN500	Angle				110VDC	5D		
24" DN600					12VDC	1D		
	Construction Material				Main Valve Position (When Solenoid De-energized)		Tubings & Fittings	
	Ductile Iron				Normally Closed	C	Copper Tubing & Brass Fittings	CB
	Stainless Steel 316				Normally Open	O	Stainless Tubing & Fittings	NN
					Last Position	P		
					Latch Solenoid	S		



NSF 61/372 USA



Bulgarkontrola Bulgaria



ACS France



GOST Russia



PZH Poland

Manufactured and Tested According to AWWA C530-12 Requirements