

# SURGE-ANTICIPATING CONTROL VALVE

## with Solenoid Control and Mechanical Flow Stem

### Model 735-55-M-M5-M5M-M5L

Hydraulically operated, solenoid controlled, off-line surge anticipating valve that immediately opens in response to an electric signal. The pre-opened valve dissipates the returning high pressure wave, eliminating the surge. The valve smoothly closes drip tight as quickly as the relief feature allows, thereby preventing closing surge. The valve also relieves excessive system pressure.

The BERMAD 700 Series large control valves are hydraulically operated and diaphragm actuated. Their unique hydro-dynamic globe design with an open plug ensures high flow capabilities.



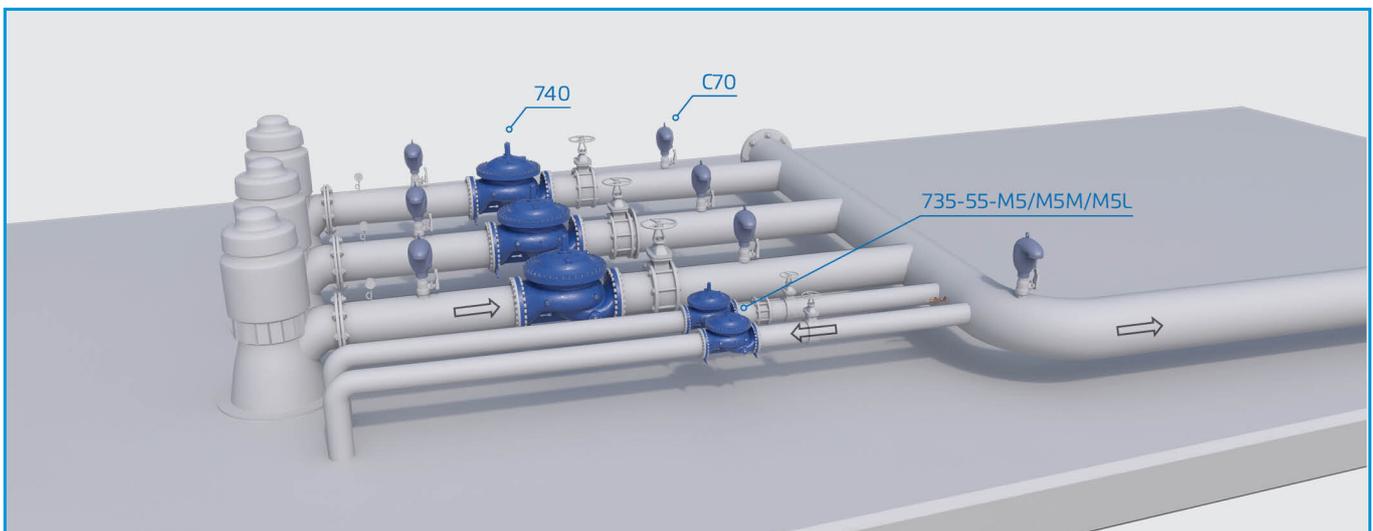
#### Features & Benefits

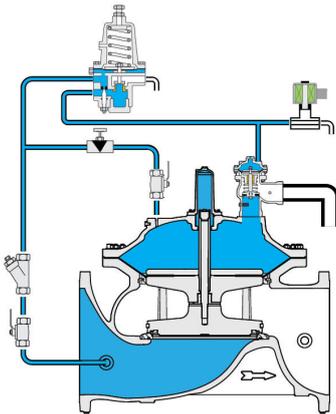
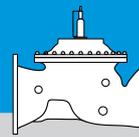
- Hydrodynamic wide globe valve body provides:
  - Higher flow coefficient (Kv; Cv) than standard globe valves
  - Higher resistance to cavitation damage
- In-line serviceable
- Valves are suitable for working with all types of command: Hydraulic, Electric and Pneumatic.
- Self-operated valves that can work without an external source of power
- Wide range of options and accessories:
  - Visual position indicator
  - Limit switches
  - Analog opening output
  - Large selection of control accessories
  - Large inspection and service ports (700-M5L)

#### Typical Applications

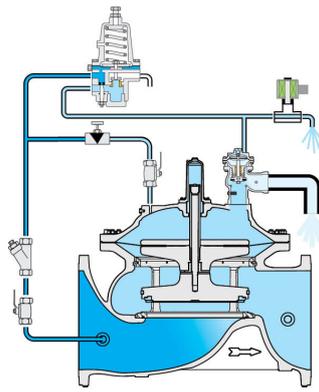
- Pumping stations - Surge Control

#### Typical Installation

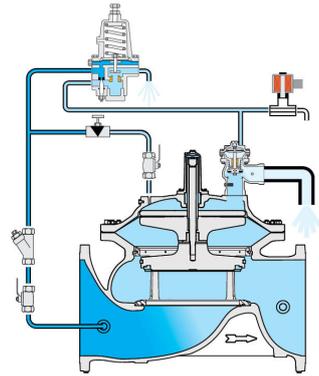




Closed



L.P. Electric Opening



H.P. Regulating

## Main Valve

**Size Range:** 20"-36"; DN500-900

**Pattern:** Globe

**Pressure Rating:** 25 bar

**End Connection:** Flanged

**Temperature Rating:** 80°C

*For 60-80°C consult factory*

### Standard Materials:

**Body & Cover:** Ductile Iron

**Cover Bolts:** Stainless Steel

**Internals:** Epoxy coated Ductile Iron, Stainless Steel & Tin Bronze

**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

### Pilot standard materials:

**Body:** Stainless Steel, Bronze & Brass

**Elastomers:** Synthetic Rubber

**Internals and Spring:** Stainless Steel

### Pilot Options:

Various pilots and calibration springs are available. Select according to valve size and operating conditions. For more details check relevant pilots product pages.

### Solenoid standard materials:

**Body:** Brass or Stainless Steel

**Elastomers:** NBR or FPM

**Enclosure:** Molded Epoxy

### Solenoid Electrical Data:

**Voltages: (DC):** 24

**Power Consumption: (DC):** 8-11.6W

Values may vary according to specific solenoid model.

## Notes

- Full system data is required for surge analysis and optimal valve sizing.
- Recommended maximum flow velocity: 15 m/sec; 50 ft/sec.
- Minimum operating pressure: 0.7 bar; 10 psi. For lower pressure requirements consult factory.

For detailed Engineering & Specification data, IOM and CAD Drawings, visit the Model Page on the [BERMAD](https://www.bermad.com) website.