BOOSTER PUMP CIRCULATION ELECTRIC CONTROL VALVE

Model 745



Hydraulically operated, pump control valve that adds advanced "active check valve" logic to standard pump systems. The valve branches off the main line and is synchronized with the pump's electric control; it opens during pump startup and shutdown, thereby preventing pipeline surges. It also prevents startup flow debris (such as sand and pebbles) from penetrating into the system.

The BERMAD 700 SIGMA EN/ES series valves are hydraulic globe valves with a raised seat and double chamber actuator. They provide unobstructed flow, effective high-pressure modulation, and minimal cavitation, complying with various potable water standards.

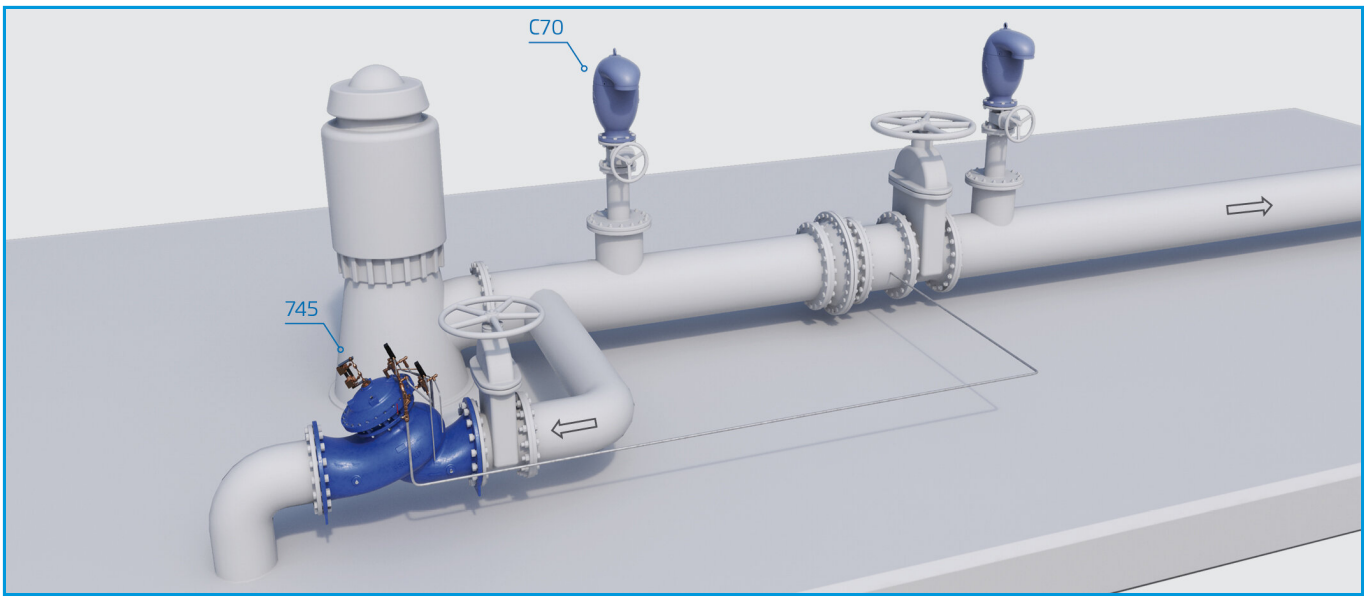
Features & Benefits

- Certified to functional and drinking water standards: EN-1074, NSF-ANSI 61-372, WRAS, AS 5081 and others
- Designed to - Stand up to the toughest conditions
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability and accuracy
  - Drip tight sealing
- Double chamber design
  - Moderated valve reaction
  - Protected diaphragm
  - Optional operation in very low pressure
  - Moderated closing curve
- Flexible design - Easy addition of features
- Obstacle free flow pass
- V-Port throttling plug (optional) - Very stable at low flow
- High quality materials
- In-line serviceable - Easy maintenance

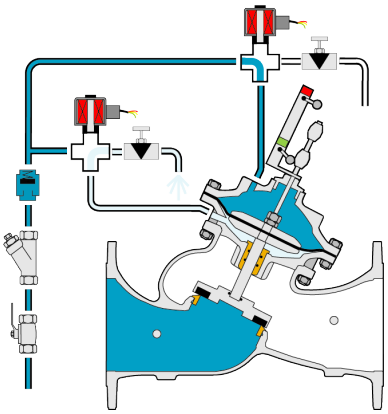
Typical Applications

- Deep-Well Pump - Controls pump start-up and shut-down

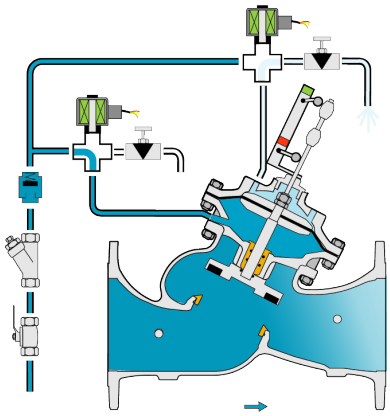
Typical Installation



All images in this catalog are for illustration only



Closed



Open

This drawing refers to 1½ – 8"; 40-200 mm sized valves only. For other sizes please refer to the Model's IOM.

Main Valve

Size Range:
EN Series: 1½"-16"; DN40-400
ES Series: 2½"-24"; DN65-600
Pattern: "Y" (globe)
Pressure Rating: 16 bar; 25 bar
End Connection: Flanged
Plug Types: Flat disc, V-port, Cavitation cage
Temperature Rating: 80°C
For 60–80°C consult factory

Standard Materials:

Body & Cover: Ductile Iron
Bolts, Nuts & Studs: Stainless Steel
Internals: Stainless Steel, Tin Bronze, Coated Steel & POM
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

Solenoid standard materials:

Body: Brass or Stainless Steel
Elastomers: NBR or FPM
Enclosure: Molded Epoxy

Solenoid Electrical Data:

Voltages:
(AC): 24, 110-120, 220-240, (50-60Hz)
(DC): 12, 24, 110, 220
Power Consumption:
(AC): 30VA, inrush; 15VA (8W), holding or 70VA, inrush; 40VA (17.1W), holding
(DC): 8-11.6W
Values may vary according to specific solenoid model. For more details check solenoid product page.

Notes

- Inlet Pressure, Outlet Pressure and Flow-rate are required for optimal sizing and cavitation analysis.
- Recommended continuous flow velocity: 0.1-6.0 m/sec; 0.3-20 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 website.

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