

FLOW CONTROL VALVE

with Opening and Closing Speed Controls

Model 770-03-U

Hydraulically operated flow control valve that maintains pre-set maximum flow, regardless of fluctuating demand or varying system pressure.

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.



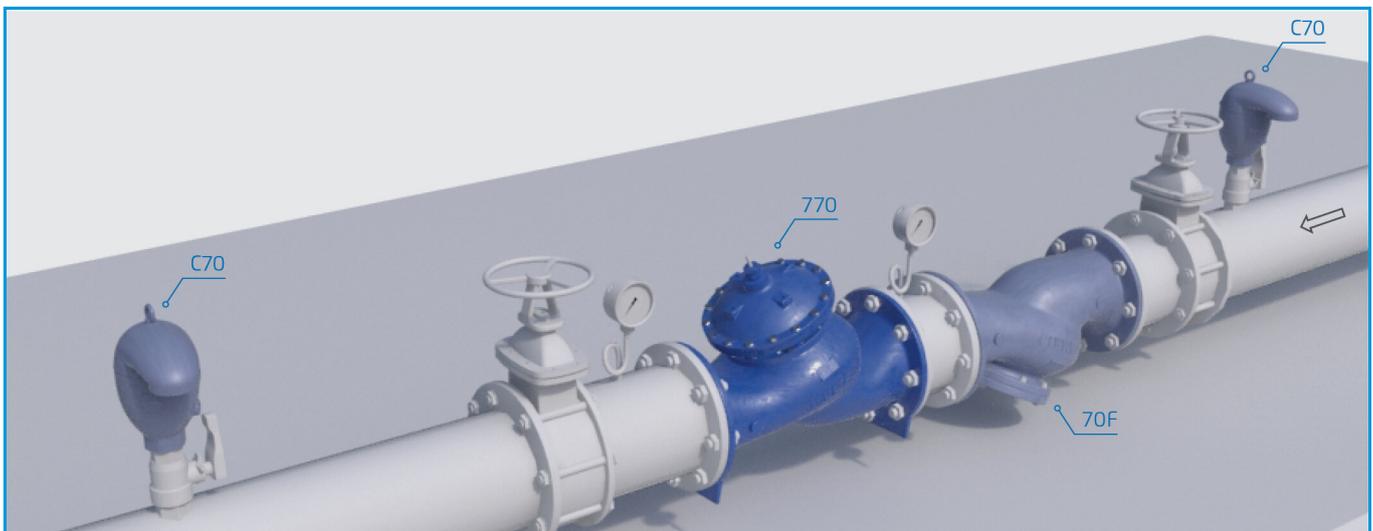
Features & Benefits

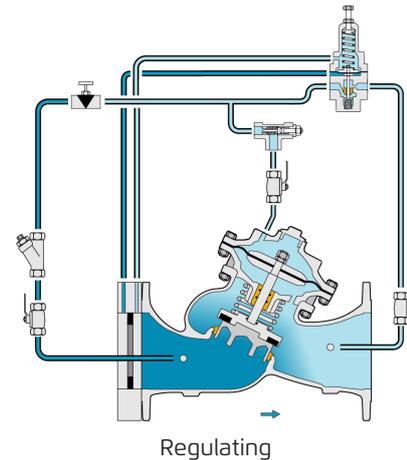
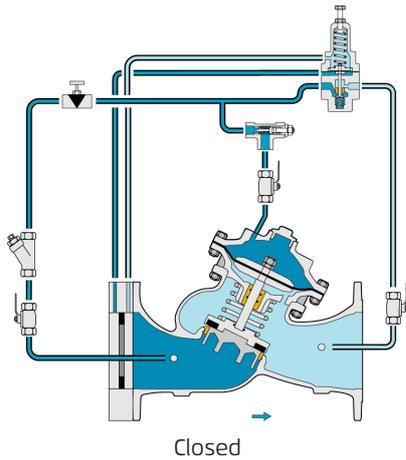
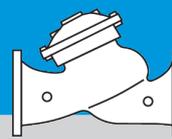
- Designed to - Stand up to the toughest conditions
 - Excellent anti-cavitation properties
 - Wide flow range
 - High stability and accuracy
 - Drip tight sealing
- Double chamber design
 - Moderated valve reaction
 - Protected diaphragm
 - Optional operation in very low pressure
 - Moderated closing curve
- Flexible design - Easy addition of features
- Obstacle free flow pass
- V-Port throttling plug (optional) - Very stable at low flow
- Compatible with various standards
- High quality materials
- In-line serviceable - Easy maintenance

Typical Applications

- Water delivery systems - Balancing supply capacity with demand
- HVAC Systems - Flow limiting to maintain efficiency and ensure optimal performance
- Filtration system - Process flow control in filtration applications

Typical Installation





This drawing refers to 1½ – 12"; 40-300 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

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.

Orifice Standard Material: POM-C or Stainless Steel

Notes

- Orifice diameter is calculated for each valve.
- Flow Setting Range: (-)15% and (+)25% from predetermined flow.
- Orifice adds 20-32mm; 0.8"-1.2" to valve length.
- The orifice additional head loss is 0.2 bar ; 2.8 psi
- Recommended continuous flow velocity: 0.3-6.0 m/sec; 1-20 ft/sec.
- Minimum operating pressure: 1.0 bar; 15 psi. For lower pressure requirements consult factory.
- Inlet Pressure, Outlet Pressure and Flow-rate are required for optimal sizing and cavitation analysis.
- When minimum head loss is essential and flow velocity is higher than 1.0 m/sec, consider using model 770-J.

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