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.



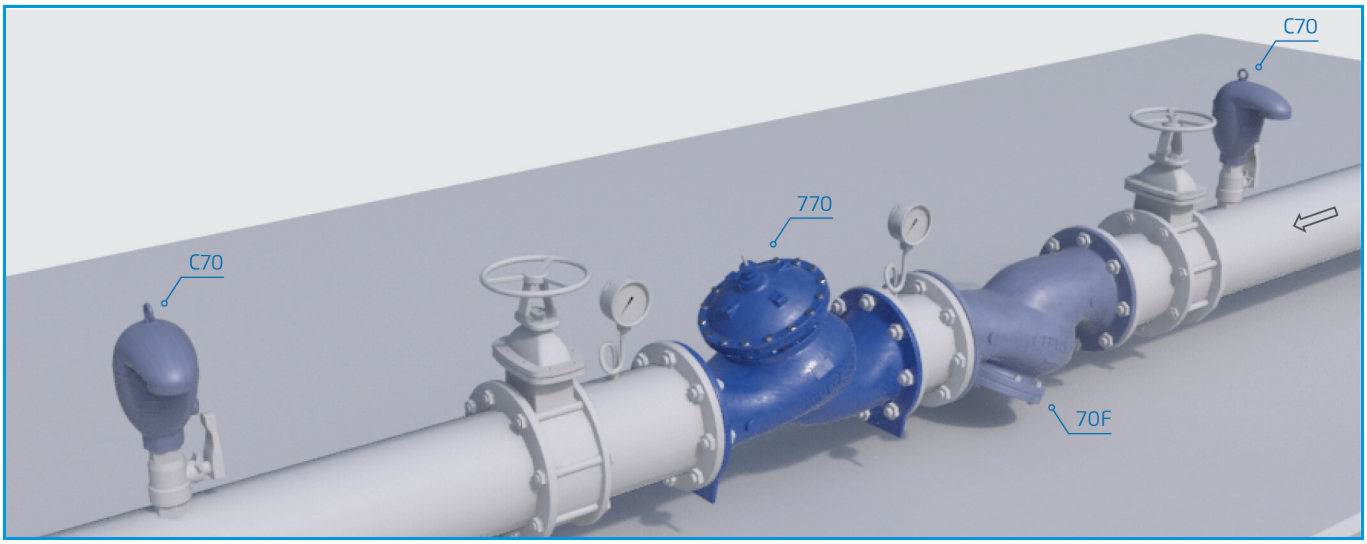
Features & Benefits

- 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

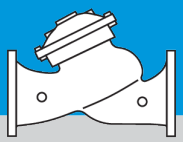
Typical Applications

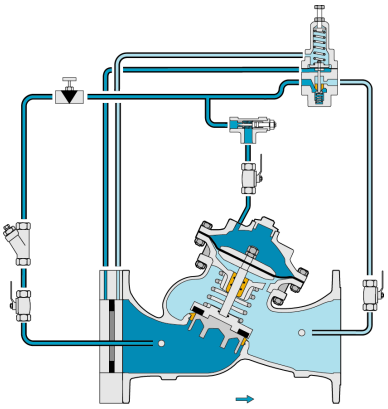
- Water delivery systems - Balancing supply capacity with demand
- HVAC Systems - Flow limiting to maintain efficiency and ensure optimal performance
- Filtration system - Process flow control in filtration applications

Typical Installation

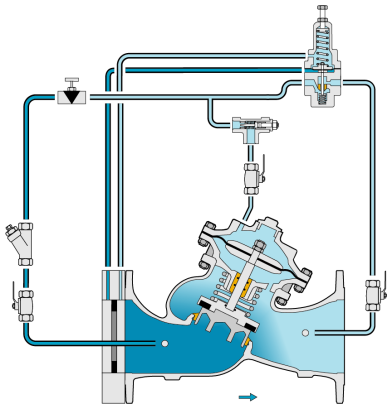


All images in this catalog are for illustration only





Closed



Regulating

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 website.

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