Pressure Reducing Valve

Model 720-X ES/EN

Hydraulically operated, pressure reducing control valve that reduces higher upstream pressure to lower constant downstream pressure, regardless of fluctuating demand or varying upstream pressure.

This valve is a double chamber configuration using 3-way control, being extremely responsive regardless of operating conditions, allowing full opening without the risk of hydraulic lock out.

BERMAD 700 SIGMA ES/EN series valves are hydraulic, oblique pattern, globe valves with seat assembly and double chamber unitized actuator, that can be disassembled from the body as a separate integral unit.

The valves hydrodynamic body is designed for unobstructed flow path and provides excellent and highly effective modulation capacity for high differential pressure applications. The valves operate under difficult operation conditions with minimal cavitation and noise. They meet all flange standards size and dimensions standard requirements.

Click here for control accessories

HOME VIEW

Features and Benefits

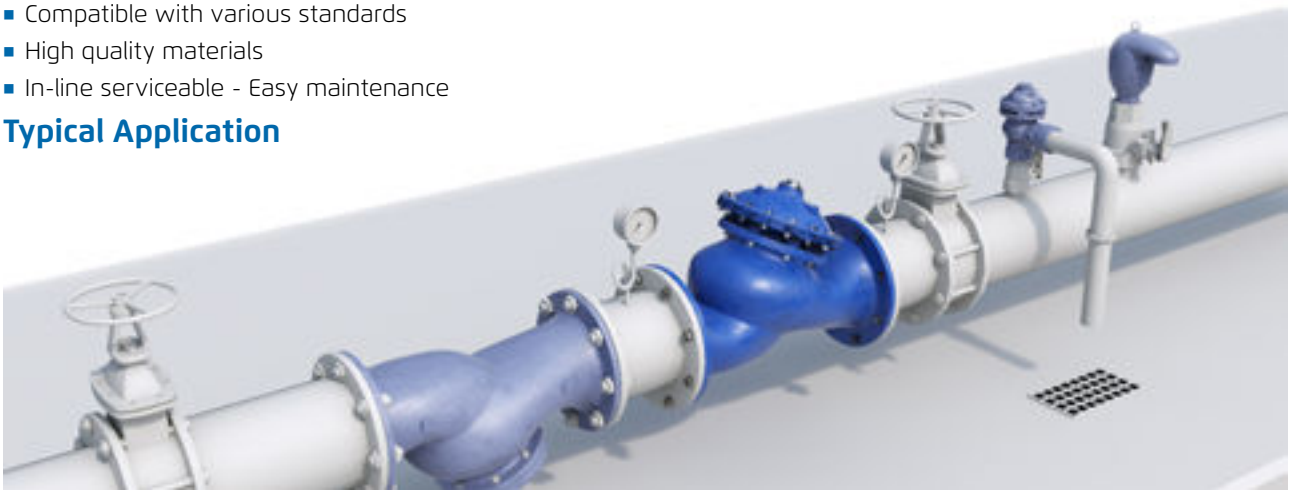
- Designed to
  - Stand up to the toughest conditions
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability and accuracy
  - Drip tight sealing
- Double chamber design
  - Moderated valve reaction
  - Protected diaphragm
  - Optional operation in very low pressure
  - Moderated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

Major Additional Features

- Fix Proportion PRV – **720-PD**
- Pressure management valve – **7PM**
- 2-way control – **720**
- Anti cavitation cage – **720-C2**
- Safety valve – **720-TC**
- Independent drop check – **720-2S**
- Check valve – **720-20**
- Solenoid control – **720-55**
- Electrically selected multi-level setting – **720-45**
- High sensitivity pilot – **720-12**
- Downstream over pressure guard – **720-48**

See relevant BERMAD publication

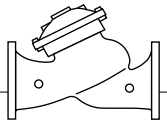
Typical Application



All images in this catalog are for illustration only

Link to Animation

BERMAD Waterworks



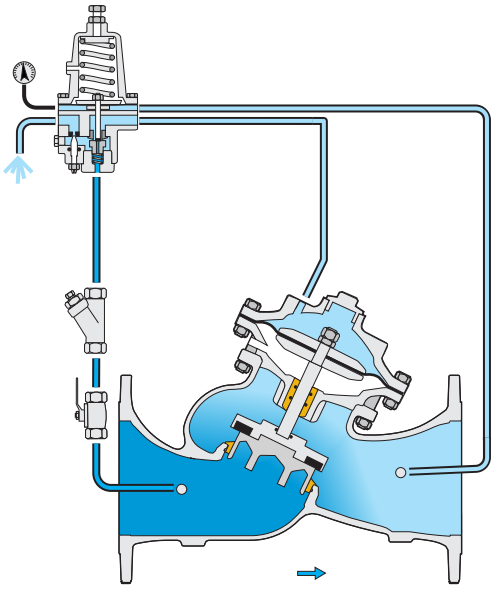
Model 720-X ES/EN

700 SIGMA Series

CLOSED

REGULATING

OPEN



This drawing refers to 1½ – 8"; 65-200 mm sized valves only. For other sizes please refer to the Model's IOM.

Main Valve

Valve Pattern: "Y" (Globe)

Size Range:
ES Series: 2½-24"; 65-600 mm
EN Series: 1½-16"; 40-400 mm

Pressure Rating: 25 bar; 365 psi

End Connections: Flanged (all standard)

Plug Types: Flat disc, V-port, Cavitation cage

Temperature Rating: Water up to 80°C; 180°F

Standard Materials:
Body & actuator: Ductile Iron
Bolts, nuts & studs: Stainless Steel
Internals: Stainless Steel, Tin Bronze & Coated Steel
Diaphragm: Fabric-reinforced synthetic rubber
Seals: Synthetic rubber
Coating:
Fusion Bonded Epoxy,RAL5017 (Blue) Drinking water approved to NSF61, WRAS, DVGW, AS4020.
Polyester powder coating, UV resistant, RAL5010 (Blue) Drinking water approved to WRAS.

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 or Brass
Elastomers: Synthetic Rubber
Spring: Stainless Steel
Internals: Stainless Steel

Pilot Options:
Various pilots and calibration springs are available. Select according to valve size and operating conditions. For more details check pressure reducing pilots 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 data, visit the Series Engineering Documentation & Model Engineering Specifications or the Downloads Center on the BERMAD website

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