# PRESSURE REDUCING VALVE

## with Multi Level Setting, Electrically Controlled

## Model 720-45

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 can be set to two different modulation values through an electric command allowing selection between the two set-points.

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.



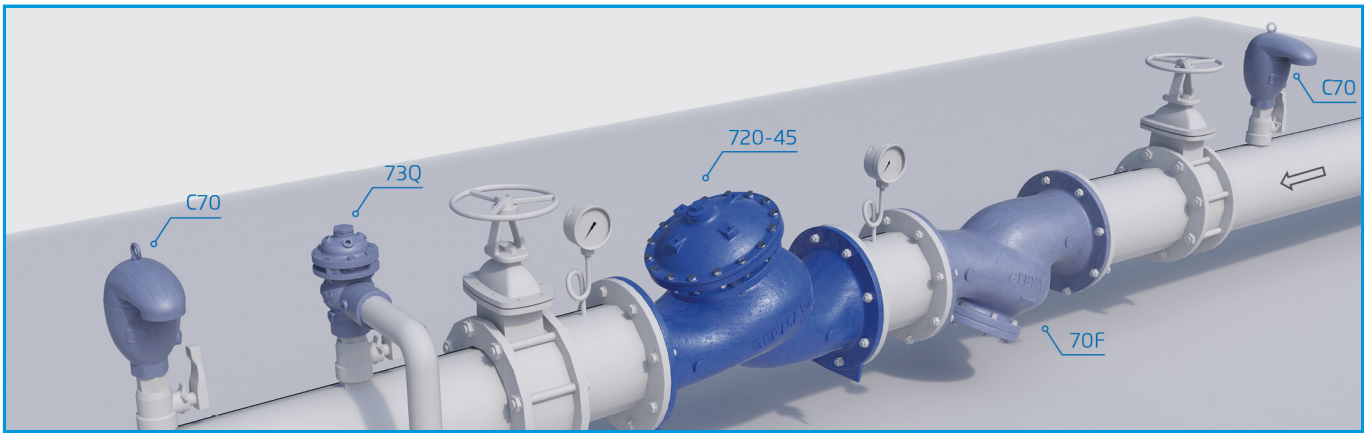
### Features & Benefits

- 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

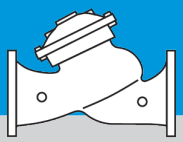
### Typical Applications

- Pressure management - NRW leakage control
- National water systems pressure control
- Municipal systems - Reducing pressure at potable water connections to buildings and structures

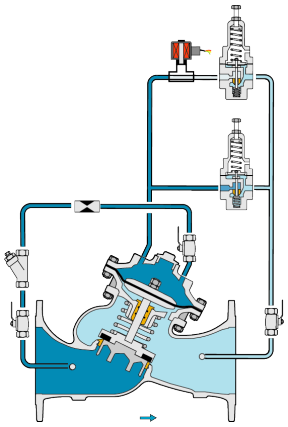
### Typical Installation



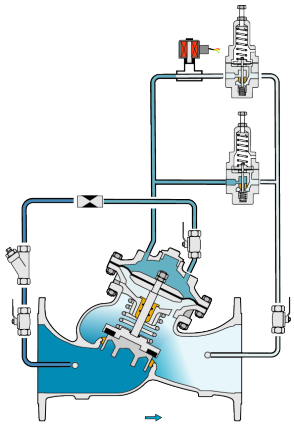

All images in this catalog are for illustration only



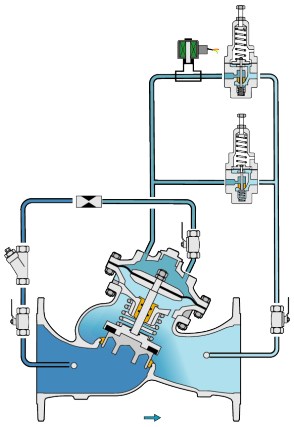




Closed



L.P Setting



H.P Setting

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

### 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:**
**(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.
- Typical solenoid: Latch type, compatible with battery operated time based controllers

For detailed Engineering & Specification data, IOM and CAD Drawings, visit the Model Page on the BERMAD website.


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