

# PRESSURE REDUCING SYSTEM

## with "Watchdog" Hydraulic Backup Valve and Low-Flow Bypass

### Model 72S-2B-H

Hydraulically operated, diaphragm actuated pressure reducing system, consisting of a BERMAD 720 PRV, an integral "Watchdog" backup valve and a DPRV. The system reduces a high upstream pressure to a lower, constant downstream pressure, regardless of fluctuating demand or varying upstream pressure. The "Watchdog" backup valve is fully open in normal operation. Should pressure rise downstream of the BERMAD 720 because of valve failure, the "Watchdog" quickly responds and triggers an alarm, while providing stable pressure to consumers until the PRV is repaired. The model also includes a low flow bypass regulated by a Direct Acting Pressure Reducing valve mounted on the valve body.



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.

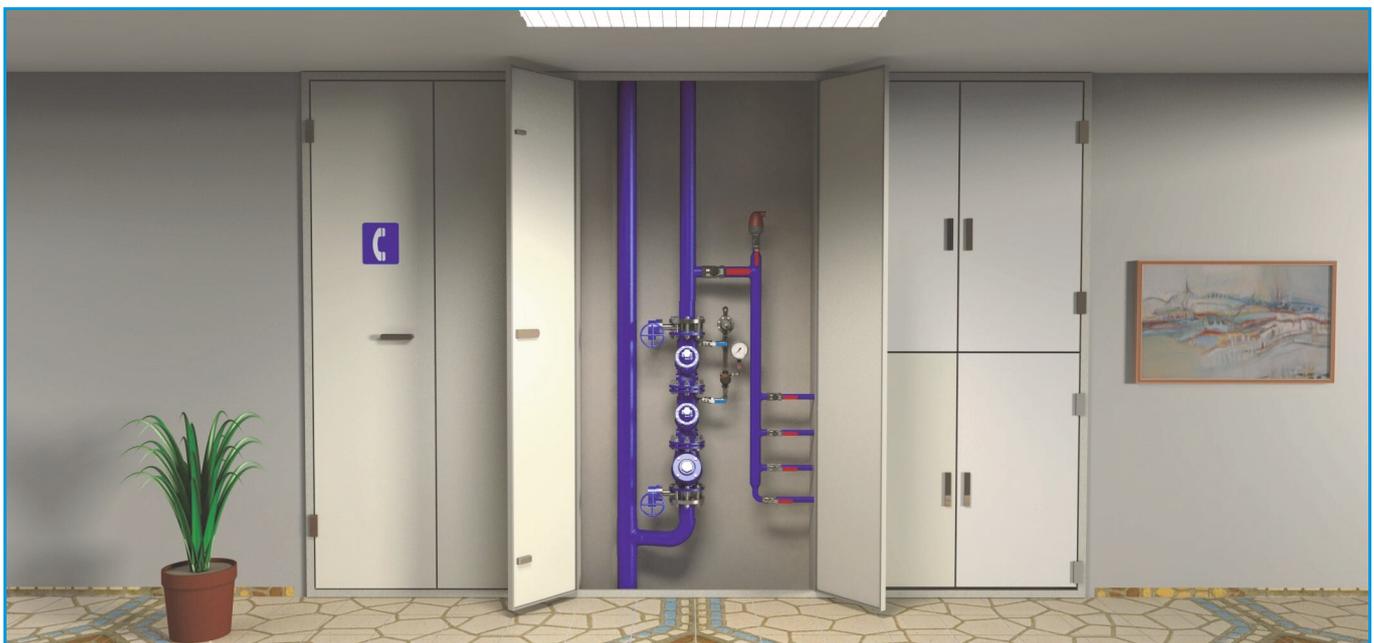
#### Features & Benefits

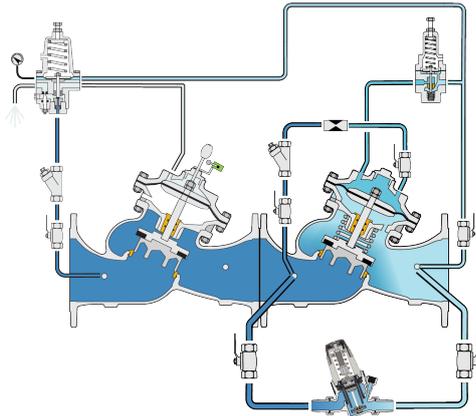
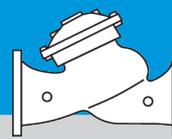
- Designed to - Stand up to the toughest conditions
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability and accuracy
  - Drip tight sealing
- Double chamber design
- V-Port throttling plug - Very stable at low flow
- Compatible with various standards
- In-line serviceable - Easy maintenance

#### Typical Applications

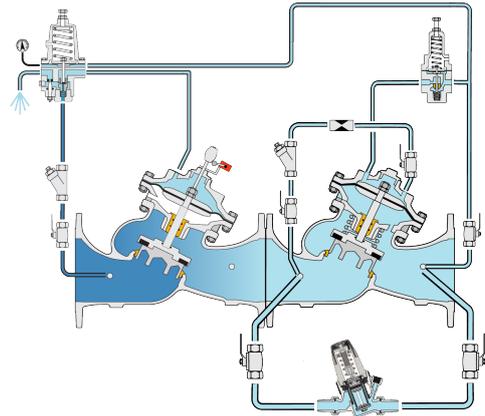
- Highrise and midrise office and residential buildings - Reducing pressure at the pressure zone inlet
- Where low-flow and no-flow conditions occur
- Municipal systems - Reducing pressure at potable water connections to buildings and structures

#### Typical Installation





Watchdog Standing-By



Watchdog Activated

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"-8"; DN40-200

**ES Series:** 2½"-10"; DN65-250

**Pattern:** "Y" (globe)

**Pressure Rating:** 16 bar; 25 bar

**End Connection:** Grooved, Flanged

**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.

### Low Flow By-Pass:

**Body:** Brass

**Elastomers :** Synthetic Rubber

## Notes

- Outlet pressure range: 1-6 bar; 15-90 psi.
- Backup pressure settings: 1 bar; 15 psi above PRV.

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