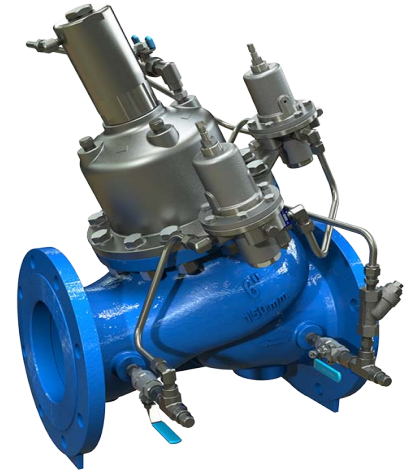


# Pressure Reducing and Sustaining Valve

## Model 823

Hydraulically operated control valve with independent Pressure Sustaining and Pressure Reducing functions. It sustains minimum pre-set upstream pressure, regardless of fluctuating flow or varying downstream pressure, and it prevents downstream pressure from rising above maximum pre-set level, regardless of fluctuating flow or excessive upstream pressure.

BERMAD 800 series valves are hydraulically operated, piston actuated globe valves designed for high pressure operation and available in either standard oblique (Y) or angle pattern design. Their full bore hydrodynamic body provides an unobstructed flow path while their seat assembly and double-chamber unitized actuator can be disassembled without removing the valve body from the pipeline.



[Click here for control accessories](#)



### Features and Benefits

- Robust structure, piston actuated – High pressure service
- Line pressure driven – Independent operation
- Elegant simplicity
  - ▢ Cost effective Simple to maintain
  - ▢ Minimal external accessories
- In-line serviceable – Easy maintenance
- Double chamber
  - ▢ Moderated valve reaction
  - ▢ Moderated closing curve
- Flexible design - Easy addition of features
- Semi-straight flow - Non turbulent flow
- Stainless Steel raised seat – Cavitation damage resistant
- Obstacle free, full bore – Uncompromising reliability

### Major Additional Features:

- 3-way control – **823-X**
- Anti cavitation cage – **823-C2**
- Safety valve – **823-TC**
- Independent drop check – **823-25**
- Hydraulic check valve – **823-20**
- Solenoid control – **823-55**
- High sensitivity pilot – **823-12**
- Downstream over pressure guard – **823-48**
- Proportional – **823-PD**

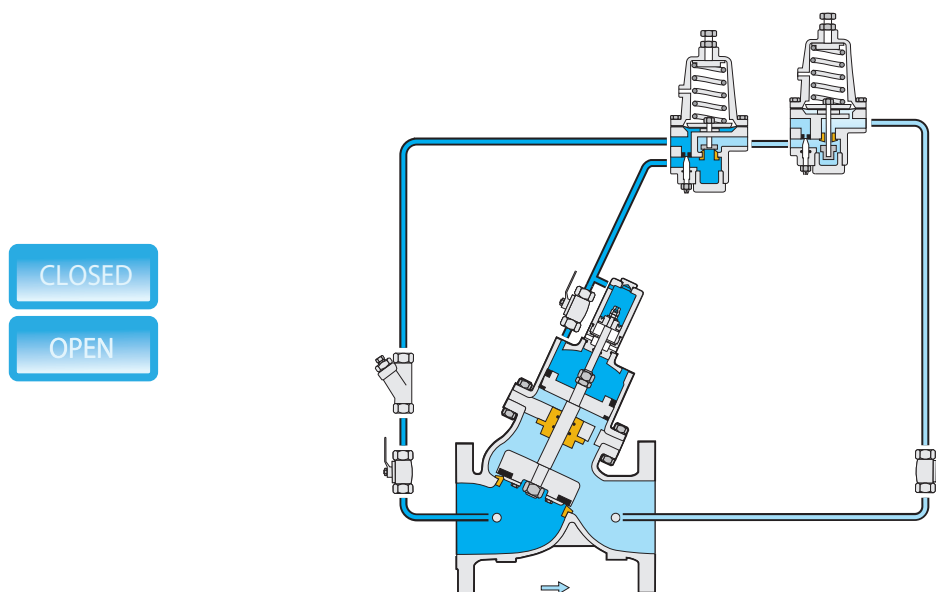
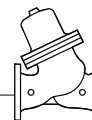
See relevant BERMAD publication

### Typical Application



All images in this catalog are for illustration only

[Link to Animation](#)



This drawing refers to 1½ – 14"; DN45-350 sized valves only. For other sizes please refer to the Model's IOM.

## Main Valve

**Valve Patterns, Size Range:**

**"Y" (Globe):** 1½-20"; DN40-500

**Angle:** 1½-18"; DN40-450

**Pressure Rating:** 40 bar; 600 psi

**End Connections:** Flanged (all standard)

**Plug Types:** Flat disc, Cavitation cage

**Temperature Rating:** 50°C; 122°F for Cold water applications.

**Optional higher temperature:** Available on request

### Standard Materials:

**Body:** Cast Steel or Ductile Iron

**Cover (Cylinder):** Stainless Steel

**Bolts Nuts & Studs:** Stainless Steel

**Internals:** Stainless Steel, Tin Bronze

**Elastomers:** Synthetic rubber

**Optional Materials:** Stainless Steel, Nickel Aluminum Bronze, Duplex & others

**Coating:** Fusion Bonded Epoxy, RAL 5017 (Blue)

## 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 and pressure sustaining pilots product pages.

### 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](http://www.bermad.com) website



[info@bermad.com](mailto:info@bermad.com) • [www.bermad.com](http://www.bermad.com)

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