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

HOME VIEW

Features and Benefits

- Robust structure, piston actuated – High pressure service
- Line pressure driven – Independent operation
- Elegant simplicity
  - Cost effectiveo 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 – **823-2S**
- 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

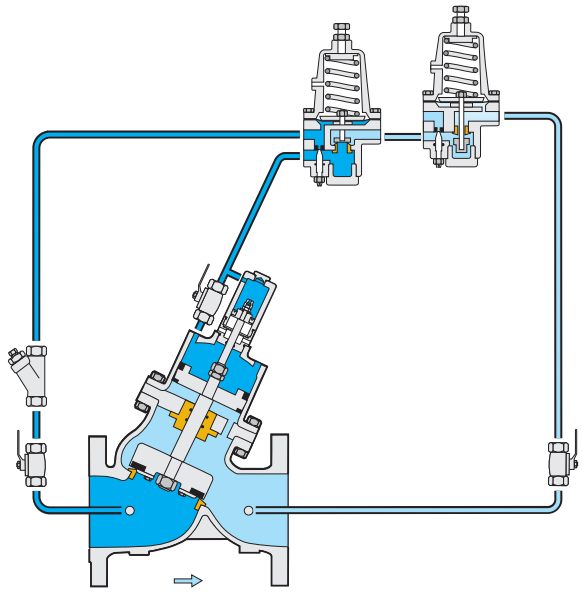
BERMAD Waterworks

Model 823

800 Series

CLOSED

OPEN



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 website

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