

SOLENOID CONTROLLED VALVE

Model: 410

The Model 410 Solenoid Controlled Valve is a hydraulically operated, diaphragm actuated control valve that either opens fully or shuts off in response to electric signals.

For very low pressure applications, refer to the Full Powered Opening and Closing Model 710-B.

- Network management optimizing
- Pressure zone isolating
- Burst excess flow shut-off
- Reservoir overflow safety backup
- Switching between “on-duty” valves
- Automatic refreshing of reservoirs

Features and Benefits

- Line pressure driven – Independent operation
- Solenoid controlled
 - Low power consumption
 - Wide ranges of pressures and voltages
 - Normally Open, Normally Closed or Latch
- Flexible design – Easy addition of features
- Advanced globe or angle hydro-efficient design
 - Unobstructed flow path
 - Single moving part
 - Non-turbulent flow
 - High flow capacity
- Fully supported & balanced diaphragm
 - Low actuation pressure
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- In-line serviceable
 - Easy maintenance
 - Minimal down time



Major Additional Features

- Opening & closing speed control –410-03
- Relief override – 410-3Q
- Closing surge prevention – 410-49

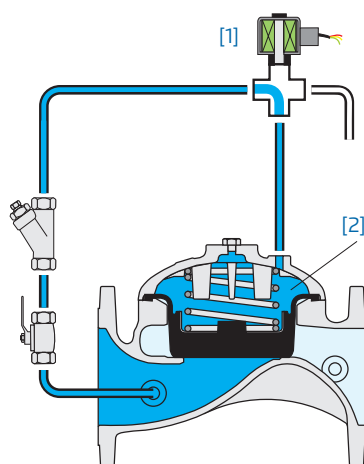
See relevant BERMAD publications.

Operation

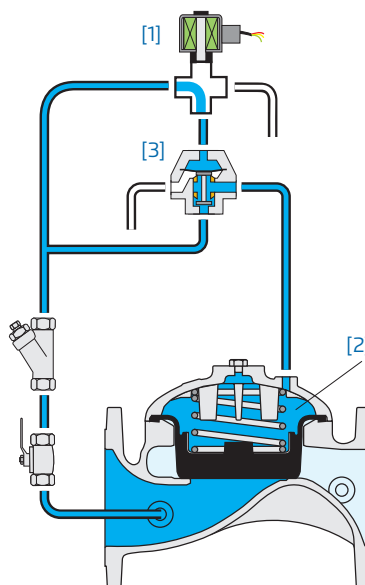
The Model 410 is a solenoid controlled valve equipped with a 3-Way solenoid pilot.

The normally open solenoid [1] applies pressure to the control chamber [2], harnessing valve differential pressure to power the diaphragm closing the main valve. Energizing the solenoid vents

control chamber pressure, causing the main valve to open fully. In cases where pipeline water is contaminated (corrosive, debris laden) external control fluid is often used. For 8" and larger valves, an accelerator [3] quickens valve response.



Size Range 1 1/2-6"



Size Range 8-16"

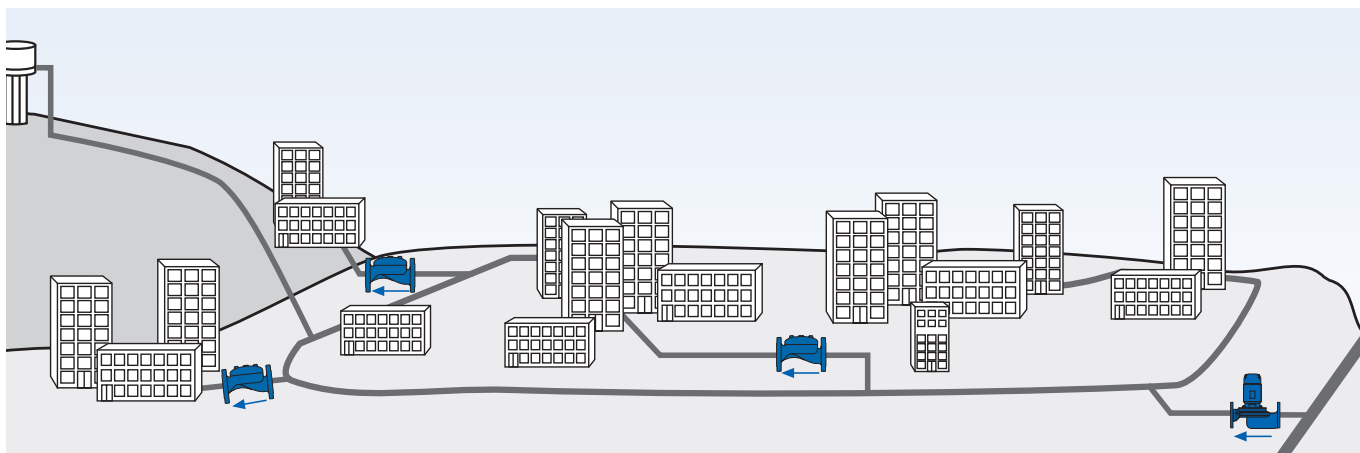
Typical Applications

Complex Distribution Networks

In complex distribution networks, management optimization of sources and consumers is essential:essential:

- Zones require isolation for maintenance
- Burst occurrence requires management
- Reservoirs call for systematic refreshing
- Sources are of various qualities and costs
- Source quality varies throughout the year
- Consumers demand various qualities

The Model 410 is well suited to meet all the above needs and more. It should be included for placement in multiple locations during the design stage or with changing needs.



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