PRESSURE RELIEF/ SUSTAINING VALVE

Model 1030

Pressure relief/sustaining hydraulically operated control valve that can fulfill either of two separate functions: When installed in-line, it sustains minimum pre-set, upstream (back) pressure regardless of fluctuating flow or varying downstream pressure. When installed as a "branched from the line" circulation valve it relieves excessive line pressure when above maximum pre-set.

The BERMAD 1000 is at the leading edge of control valve design, providing a valve that is free of the typical limitations associated with standard control valves. A unitized flexible diaphragm & guided plug provide a significantly 'look through' passage resulting in accurate & stable regulation and high flow capacity.

The 1000 unique composite structure allows fast & simple maintenance by easy replacing of lightweight diaphragm assembly. It has a wide range of end connection types and sizes, including articulated flange connections isolating the valve from pipeline bending & pressure stresses.

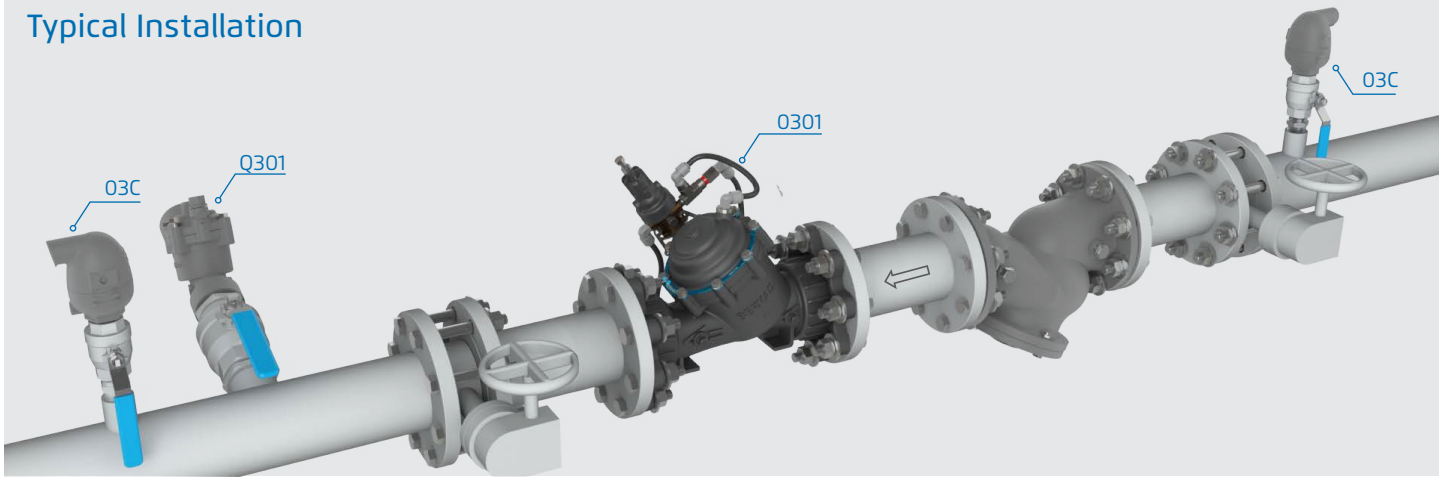
Features and Benefits

- Easy set-up
  - Super light weight
  - Line pressure driven - no external power needed
  - Easy pressure setting - in site or pre-ordered
  - Adaptable on-site to a wide range of end connection
- Simple and durable design
  - Excellent cavitation resistance
  - Highly durable construction & material - No rust
  - Unitized actuator unit - open, replace, close
  - In-line serviceable - no need to remove from line
- All the benefits of a diaphragm actuated control valve
  - Wide flow range
  - Low flow stability
  - Drip tight sealing
  - Obstacle free flow pass
  - Easy addition of hydraulic features

Typical Applications

- Prioritizing upstream consumes over downstream high demand
- Sustaining sufficient pressure at upstream in case of pressure drop
- High pressure safety relief valve in potable water pressure reduction systems
- As a safety device for pumping stations temporarily operated out of their regular regime, where stable and constant pressure relief is required
- Sustains pump discharge pressure, preventing pump overload and cavitation damage caused by excessive demand
- Preventing line emptying in gravity lines

Typical Installation



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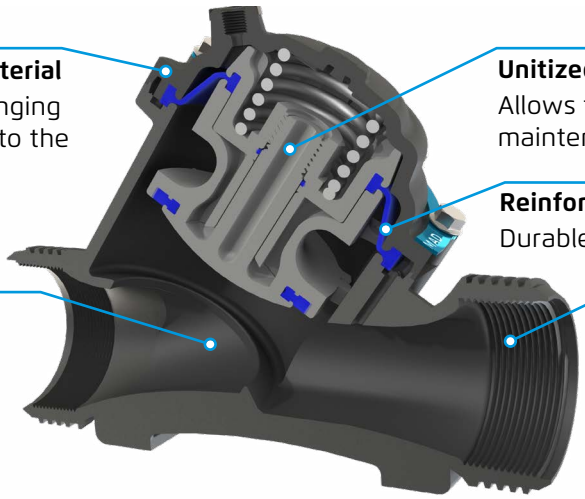

Advanced Composite Polymer Material
Strong, inert and light weight; bringing the next generation of materials to the water supply industry

Unitized Actuator Assembly
Allows fast and simple in-line maintenance

Reinforced Rolling Diaphragm
Durable and flexible operation

Unobstructed Flow
High capacity semi-straight flow for exceptionally low head loss

Internal Threads or Adaptors
Flexible option for Threaded, Groove or Flange connection

Technical Specifications

End Connections:
Threaded - Female NPT or BSP.T:
1½"EN, 2"ES/EN, 3"ES/EN
Grooved - According to ANSI C606-81:
2"ES/EN, 3"ES/EN, 4"ES/EN
Flanged - ISO-7005-2 (PN10/PN16), ANSI #125/ANSI #150, JIS K-10:
3"ES/EN, 4"ES/EN, 6"ES
Pressure Rating: 250 psi; PN16
Valve Pattern: Y (Oblique)
Temperature: For Cold Water Applications
Consult Bermad For hot water applications.

Main Valve Materials:
Body, Cover and Actuator assembly: Reinforced Polyamide
Cover Bolts: Stainless Steel 304
Spring: Stainless Steel 302
Diaphragm: EPDM
Seals: EPDM
Trim:
Accessories: Stainless Steel / Bronze & Brass / Polyamide
Tubing: Polypropylene
Fittings: Acetal

Notes
- Inlet pressure, outlet pressure and flow rate are required for optimal sizing and cavitation analysis
- Recommended continuous flow velocity: 0.3-20 ft/sec; 0.1-6.0 m/sec
- Minimum operating pressure: 10 psi / 0.7 bar. For lower pressure requirements consult factory

How To Order

Please Specify the requested valve in the following sequence:

WW - 2" - 1030 - EN - P2 - Y - Q - VN - UC - [ ] - PA - HR

Segment	Code
WW	

Model	Code
1030	

Size	Code	
Design	EN	ES
1½", DN40	1½"	-
2", DN50	2"	2"
3", DN80	3"	3"
4", DN100	4"	4"
6"; DN150		6"

Type	Code
High Flow	EN
Normal Flow	ES

End Connection	Body Threads	Code
Threaded	BSP.T Female	BP
	NPT Female	NP
Grooved	BSP.T Female	VV
	NPT Female	VN
Flanged	BSP.T Female	CC
	NPT Female	CN

Voltage	Code
24VAC/50Hz	4A
24VAC/60Hz	46
24VDC	4D
220VAC/50-60Hz	2A
110VAC/50-60Hz	5A

Main Valve Position (When Solenoid De-energized)	Code
Normally Closed	C
Normally Open	O

Additional Attributes (Multiple Options Permitted)	Code
St.St. 316 All Control Accessories	N
Trim Isolation Ball Valves	h
Pressure Gauge	6
Horizontal Installation, Left Side Circuit (Standard)	HL
Horizontal Installation, Right Side Circuit	HR

Main Valve Compliance	Code
Potable Water	P2

Orientation	Code
Y Oblique	Y

Construction Material	Code
Nylon Glass Reinforced	Q

Coating	Code
Uncoated	UC

Tubings & Fittings	Code
Polypropylene Tubing and Acetal Fittings	PA

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

www.bermad.com