BERMAD MODEL 42T PRESSURE REDUCING VALVE

(Flanged valve shown for reference only.
Actual valve provided has grooved end connections.)

Features

- Single piece, rugged, elastomeric diaphragm seal
- No mechanical moving parts
- Obstacle-free, uninterrupted flow path
- Suitable for pump discharge control, due to low head loss
- Very high flow efficiency

General

The BERMAD Model 42T pressure control valve, is an elastomeric, line pressure driven pilot operated pressure control valve. The 42T reduces high upstream pressure to a precise, preset, stable downstream pressure. Due to its exceptional head loss, the 42T is ideal for control of fire pump discharge to prevent over-pressure in the piping network.

Specifications

Size	2” (50 mm)
Installation	Horizontal/Vertical
Body Material	Ductile Iron A356 [1]
End Connection	Grooved ANSI C606 365 psi (25 bar)
Tubing and Fittings	Stainless Steel 316
Coating	Polyester Red [1]
Setting Range	4 – 12 bar (60 – 175 psi)

[1] Coated internally and externally.

Approvals

Underwriters Laboratories (UL)
Factory Mutual (FM)
Det Norke Veritas (Type Approval)
American Bureau of Shipping (ABS), (Type Approval)
Lloyd’s Register (Type Approval)

For exact certification listings, please reference the respective agency web site.

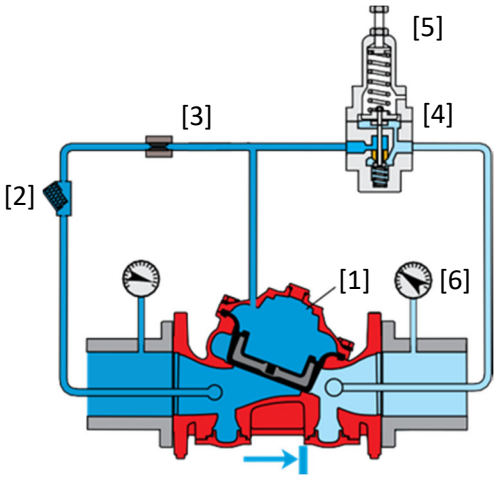
Ordering Information

Part Number	Description
02-16782	2” (50 mm) Pressure Reducing Valve with Grooved Ends

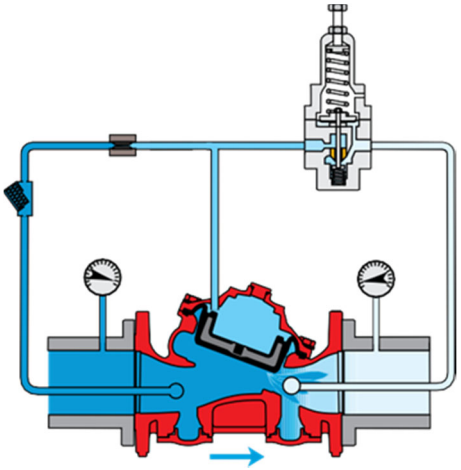
NOTE: To comply with the requirements outlined in the FM and UL standards, a pressure relief valve is to be installed on the downstream side of any approved or listed pressure reducing valve. See Fike data sheet W.1.16.01.

Operation

The BERMAD Model 42T pressure control valve, reduces water pressure automatically and accurately from a high inlet pressure to a lower, preset outlet pressure. The outlet set pressure can be adjusted by way of the pilot adjusting screw [5]. The valve operates under both flow and static conditions. The pressure-reducing pilot valve [4] senses changes in outlet pressure [6] and modulates the control valve to maintain the preset outlet pressure. When outlet pressure rises above the preset pressure, the pilot valve throttles, enabling pressure to accumulate in the control chamber [1], this causes the control valve to close further and reduce outlet pressure. When outlet pressure falls, the pilot valve opens wider, releasing pressure from the control chamber. This causes the control valve to open wider and increas outlet pressure. An integral restrictor [3] controls the valve's closing speed.

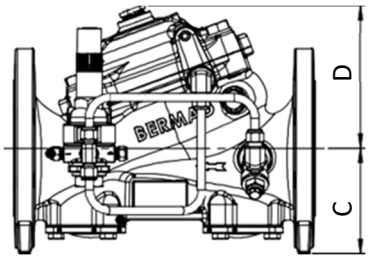


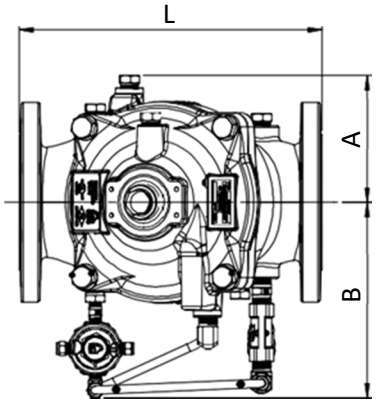
Valve Closed (non-flow conditions)



Valve Open (flow condition)

Dimensions





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Valve Size	L	A	B	C	D	Kv/Cv[1]	Leq[2]	Kg/lb
2"/DN50	2.30 mm [9.1 in.]	77.5 mm [3 in.]	155 mm [6.1 in.]	77 mm [3.03 in.]	120 mm [4.69 in.]	80 [92]	5 m [16 ft.]	19.3 [42.5 lb.]

Notes: [1] Kv/Cv values given for a fully opened valve.
[2] Leq (Equivalent Pipe Length) refers to a fully opened valve with turbulent flow in new steel pipe schedule 40. Values given for general consideration only.