FLUSH-'N-STOP VALVE - DOUBLE CHAMBER

Model IR-100-DC-LMOe

The BERMAD Model IR-100-LMOe is a double chambered, hydraulically operated, diaphragm actuated control valve suitable for automatic flushing of distribution lines at the beginning and the end of each irrigation cycle. Equipped with an auxiliary opening spring, it enables automatic opening when the system reaches closure pressure and settable opening rate, ensuring line pressure build-up for secure closing.

[1] BERMAD Model IR-100-LMOe opens when the system reaches closure pressure flushing dirt and sediment out, and shuts off upon line pressure build-up when irrigation begins.
[2] Control Pressure Inlet

Features & Benefits

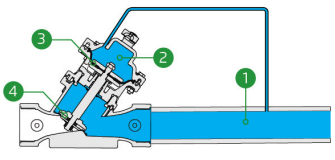
- Hydraulic Control Valve
  - Line pressure driven
  - Short response time
  - Long term drip tight sealing
- Engineered Composite Valve with Industrial Grade Design
  - Adaptable on-site to a wide range of end connection
  - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
  - Ultra-high flow capacity at low pressure loss
- Double Chamber Design
  - Full powered opening and closing
  - Decreased pressure loss
  - Low throttling noise
  - Non-slam closing characteristic
  - Protected diaphragm
- User-Friendly Design
  - Simple in-line inspection and service

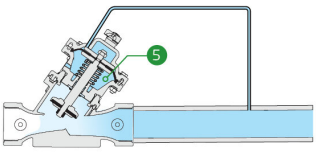
Typical Applications

- Distribution Line Flush-n-Stop
- Drip Systems
- Sprinklers & Micro-Sprinklers
- Irrigation Machine Line Flush-'n-Stop

Operation:

Irrigation Line Pressure [1] pressurizes the Upper Control Chamber [2] ,forcing the Diaphragm [3] actuated Plug [4] to move towards the closed position, thereby shutting the Valve. When irrigation stops, system pressure drops, allowing the Spring [5] opening force to overpower the hydraulic closing force. The spring force then pushes the diaphragm, thereby opening the Valve, which remains open. When irrigation starts again, a water stream flushes the line through the opened Valve. Valve resistance enables pressure to build up and rise until the pressure in the control chamber creates hydraulic closing force higher than the spring opening force, and the valve shuts off.





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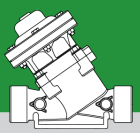


Technical Data

Pressure Rating:
150 psi

Operating Pressure Range:
7-150 psi

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NR, Nylon fabric reinforced

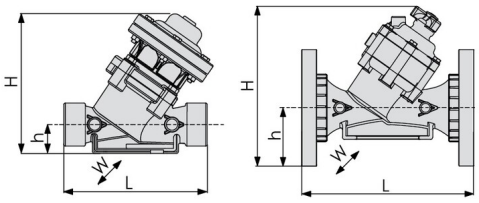
Spring:
Stainless Steel

Control Loop Accessories

Tubing and Fittings:
Polyethylene and
Polypropylene

Technical Specifications

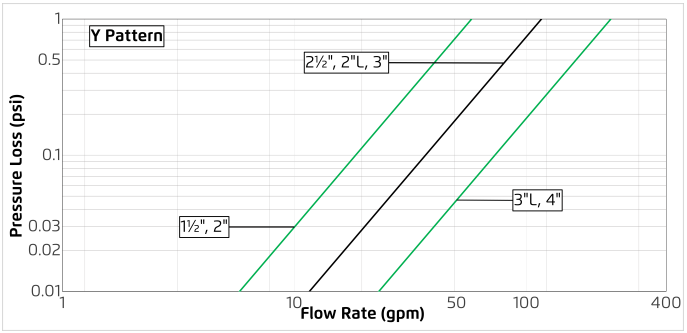
For other patterns and end connection types,
Please refer to BERMAD full engineering page.



Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
1½" ; DN40	"Y" (globe)	Threaded	4	7⅞	7⅝	1⅝	5	0.034	58
2" ; DN50	"Y" (globe)	Threaded	4	9⅛	7¾	1⅝	5	0.034	58
2"L ; DN50L	"Y" (globe)	Threaded	4.9	9⅛	8¾	1¾	5⅜	0.045	116
2½" ; DN50L	"Y" (globe)	Threaded	4.9	9⅛	8¾	1¾	5⅜	0.045	116
3" ; DN80	"Y" (globe)	Threaded	5	11¾	9¼	2¼	5⅜	0.045	116
3" ; DN80	"Y" (globe)	Metal Flanges	11	12⅛	11	4	7⅞	0.045	116
3" ; DN80	"Y" (globe)	Plastic Flanges	7.1	12⅛	11	4	7⅞	0.045	116
3"L ; DN80L	"Y" (globe)	Threaded	13.1	13⅜	14	2⅜	8⅜	0.15	231
3"L ; DN80L	"Y" (globe)	Plastic Flanges	14.3	13½	15⅝	4	8⅜	0.15	231
3"L ; DN80L	"Y" (globe)	Metal Flanges	16.3	13½	15⅝	4	8⅜	0.15	231
4" ; DN100	"Y" (globe)	Plastic Flanges	16.8	14⅜	16	4½	8⅞	0.15	231
4" ; DN100	"Y" (globe)	Metal Flanges	21	14⅜	16	4½	8⅞	0.15	231

CCDV = Control Chamber Displacement Volume • Threaded = BSP & NPT are available. External thread is available for 2" and 2½" only. • Other End Connections are available on request. For dimensions and weights of adapters or valves with adapters please consult with customer service.

Flow Chart



Differential Pressure & Flow Calculation

$$\Delta P = \left(\frac{Q}{Cv}\right)^2$$

Cv = gpm @ ΔP of 1 psi
Q = gpm
ΔP = psi