

FLUSH-'N-STOP VALVE, DOUBLE CHAMBER

Model IR-100-LM0e

The BERMAD Model IR-100-LM0e 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-LM0e 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 and Benefits

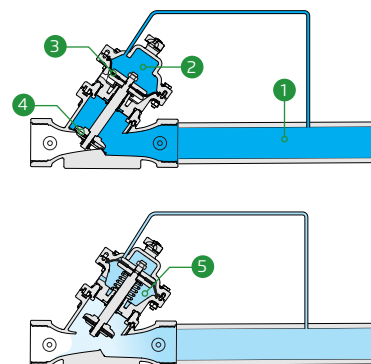
- Hydraulic Control Valve
 - Line pressure driven
 - Short response time
 - Long term drip tight sealing
- Engineered Plastic Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection sizes and types
 - Highly durable, chemical & cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity at Low pressure loss
- Double chamber
 - 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

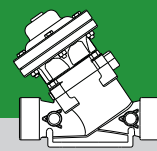
Typical Applications

- 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.





IR-100-LMOe

Technical Data

Pressure Rating:
10 bar; 145 psi

Operating Pressure Range:
0.5-10 bar; 7-145 psi
min. closing line pressure
above 5 meters

Materials:

Body, Cover and Plug:
Polyamid 6 & 30% GF

Diaphragm:
NR, Nylon fabric reinforced

Seals: NR

Spring: Stainless Steel

Cover Bolts: Stainless Steel

Actuator:
Composite Material &
Stainless Steel

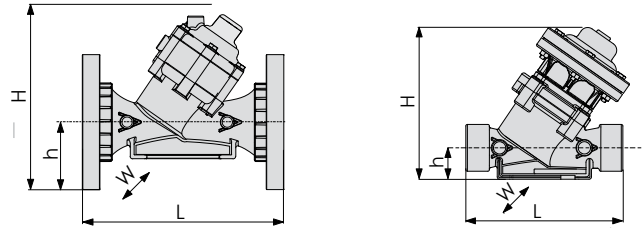
Control Accessories:

Tubing and Fittings:
Tubing: Polyethylene
Fittings: Polypropylene

Technical Specifications

Y Pattern Valves Dimensions & Weights

For [BERMAD](#) angle, dual & T pattern,
Please see our full engineering page.



Size Inch; DN	1½"; 40	2"; 50	2"; 50	2"L; 50L	2½"; 50L	3"; 80	3"; 80	
End Connections	Rc (BSP.T), NPT	G (BSP.F)	Rc (BSP.T), NPT	Rc (BSP.T), NPT	G (BSP.F)	Rc (BSP.T), NPT	Universal Flanges	
							Metal	Plastic
L (mm)	200	200	230	230	230	298	308	308
H (mm)	194	196	196	220	220	232	277	277
h (mm)	40	40	40	43	43	55	100	100
W (mm)	126	126	126	135	135	135	200	200
CCDV (lit)	0.13	0.13	0.13	0.17	0.17	0.17	0.17	0.17
Weight (Kg)	1.7	1.7	1.7	2.2	2.2	2.3	5.1	3.2

CCDV = Control Chamber Displacement Volume • **BSP.T** = Internal Threaded • **BSP.F** = External Threaded

- Other End Connections are available on request. For dimensions and weights of adapters or valve with adapters please consult with customer service
- Flow Stem will be provided for diameters 2"L and above.

Flow Properties

Sizes	Inch DN	1½" 40	2" 50	2L" 50L	2½" 65	3" 80
KV		50	50	100	100	100

Valve Flow Coefficient

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

$Kv = m^3/h$ @ ΔP of 1 bar
 $Q = m^3/h$
 $\Delta P = \text{bar}$

Flow Chart

