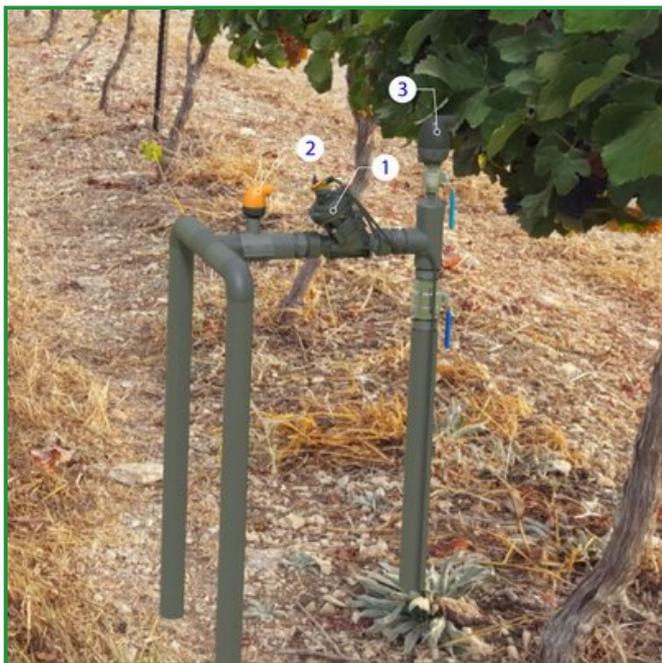


HYDRAULIC CONTROL VALVE - DOUBLE CHAMBER

Model IR-100-DC-Z

The BERMAD Model IR-100-DC-Z Hydraulic Control Valve is a double chambered, hydraulically operated, diaphragm actuated control valve that opens and shuts in response to a local or remote pressure command. The Double Chamber Valve is high performance valve and operates at low pressures.



[1] BERMAD Model IR-100-DC-Z Open upon to local manual command.
[2] Kinetic Air Valve Model IR-K10
[3] Combination Air Valve Model IR-C10

Features & Benefits

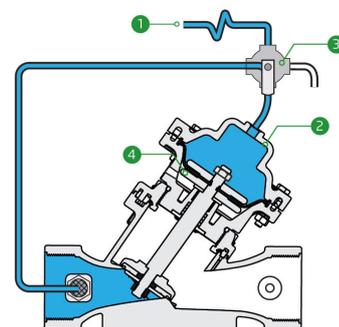
- Hydraulic Control Valve with On/Off Feature
 - Line pressure driven
 - Suitable also for remote and/or elevated systems
- Double Chamber Design
 - Full powered opening and closing
 - Non-slam closing characteristic
 - Protected diaphragm
- Engineered Composite Valve with Industrial Grade Design
 - hYflow 'Y' Valve Body with "Look Through" design
 - Ultra-high flow capacity at low pressure loss
- User-Friendly Design
 - Simple in-line inspection and service, Easy maintenance
 - Simple in-line conversion from single to double chamber

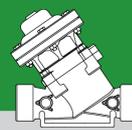
Typical Applications

- Automated Irrigation Systems
- Drip Systems
- Sprinklers & Micro-Sprinklers
- Low Pressure Systems
- End-Line Flushing (Distribution Line, Irrigation Machine) - "Flush-n-Stop"
- Proportional Pressure Reducing
- Non-Slam Closing (or moderate closing)
- Active Double Chambered (B)-Full Powered Opening & Closing

Operation:

Hydraulic Command [1] is applied to the Control Chamber [2] through the Manual Selector [3]. This creates superior closing force that moves the Diaphragm Assembly [4] to a closed position. Discharging the pressure in the upper control chamber to atmosphere, causes the line pressure acting on the seal disk to move the valve to the open position.





Technical Data

Pressure Rating:
150 psi

Operating Pressure Range:
7-150 psi

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NR, Nylon fabric reinforced

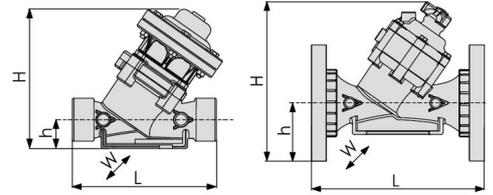
Spring:
Stainless Steel

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.



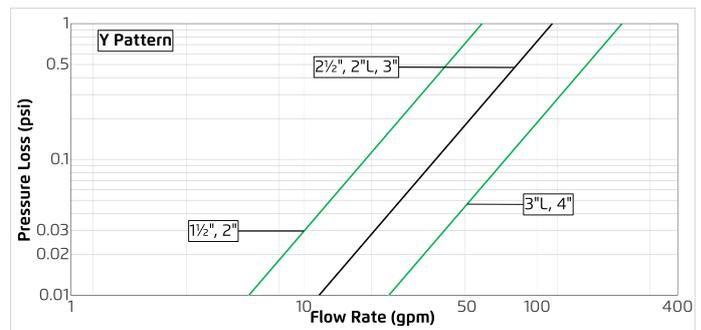
Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
1½" ; DN40	"Y" (globe)	Threaded	4	7¾	7¾	1½	5	0.034	58
2" ; DN50	"Y" (globe)	Threaded	4	9½	7¾	1½	5	0.034	58
2"L ; DN50L	"Y" (globe)	Threaded	4.9	9½	8¾	1¾	5½	0.045	116
2½" ; DN50L	"Y" (globe)	Threaded	4.9	9½	8¾	1¾	5½	0.045	116
3" ; DN80	"Y" (globe)	Threaded	5	11¾	9¼	2¼	5½	0.045	116
3" ; DN80	"Y" (globe)	Plastic Flanges	7.1	12¾	11	4	7¾	0.045	116
3" ; DN80	"Y" (globe)	Metal Flanges	11	12¾	11	4	7¾	0.045	116
3"L ; DN80L	"Y" (globe)	Threaded	13.1	13¾	14	2¾	8¾	0.15	231
3"L ; DN80L	"Y" (globe)	Plastic Flanges	14.3	13½	15½	4	8¾	0.15	231
3"L ; DN80L	"Y" (globe)	Metal Flanges	16.3	13½	15½	4	8¾	0.15	231
4" ; DN100	"Y" (globe)	Plastic Flanges	16.8	14¾	16	4½	8¾	0.15	231
4" ; DN100	"Y" (globe)	Metal Flanges	21	14¾	16	4½	8¾	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.

Additional Features

Code	Description	Size Range
K/L	Auxiliary Closing / Lifting Spring (for 100-DC models only)	1½"-4"

Flow Chart



Differential Pressure & Flow Calculation

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

$Cv = \text{gpm @ } \Delta P \text{ of 1 psi}$
 $Q = \text{gpm}$
 $\Delta P = \text{psi}$