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

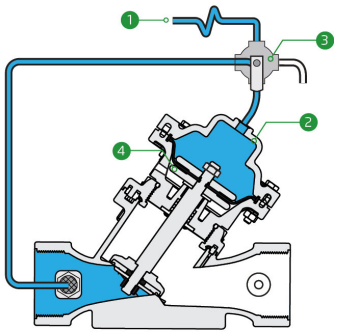
- Hydraulic Control Valve with On/Off Feature
  - Line pressure driven
  - Suitable also for remote and/or elevated systems
- Double Chamber Design
  - Full powered opening and closing
  - Non-slam closing characteristic
  - Protected diaphragm
- Engineered Composite Valve with Industrial Grade Design
  - 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.



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Technical Data

Pressure Rating:
10 bar

Operating Pressure Range:
0.5-10 bar

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NR, Nylon fabric reinforced

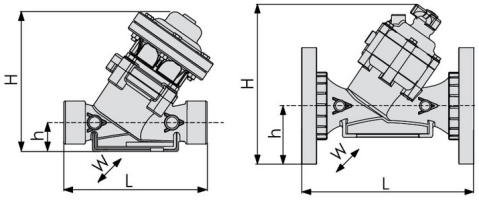
Spring:
Stainless Steel

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.



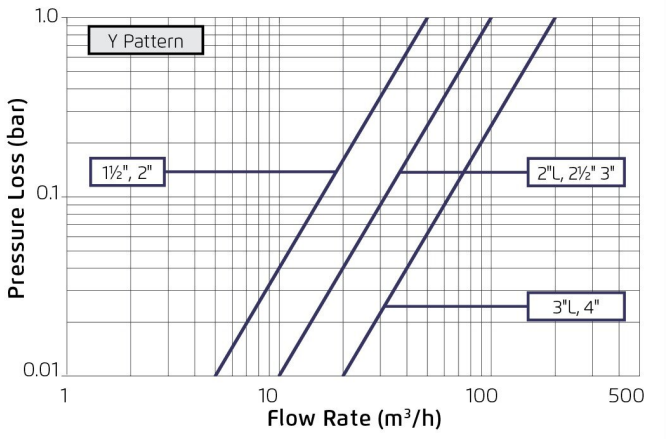
Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	W	CCDV (Lit)	KV
1½" ; DN40	"Y" (globe)	Threaded	1.7	200	194	40	126	0.13	50
2" ; DN50	"Y" (globe)	Threaded	1.7	230	196	40	126	0.13	50
2"L ; DN50L	"Y" (globe)	Threaded	2.2	230	220	43	135	0.17	100
2½" ; DN50L	"Y" (globe)	Threaded	2.2	230	220	43	135	0.17	100
3" ; DN80	"Y" (globe)	Threaded	2.3	298	232	55	135	0.17	100
3" ; DN80	"Y" (globe)	Plastic Flanges	3.2	308	277	100	200	0.17	100
3" ; DN80	"Y" (globe)	Metal Flanges	5.1	308	277	100	200	0.17	100
3"L ; DN80L	"Y" (globe)	Threaded	6	338	356	60	210	0.55	200
3"L ; DN80L	"Y" (globe)	Plastic Flanges	6.5	343	395	100	210	0.55	200
3"L ; DN80L	"Y" (globe)	Metal Flanges	7.4	343	395	100	210	0.55	200
4" ; DN100	"Y" (globe)	Plastic Flanges	7.6	364	407	112	224	0.55	200
4" ; DN100	"Y" (globe)	Metal Flanges	9.5	364	407	112	224	0.55	200

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" / DN40-100

Flow Chart



Differential Pressure & Flow Calculation

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

Kv = m³/h @ ΔP of 1 bar
Q = m³/h
ΔP = bar