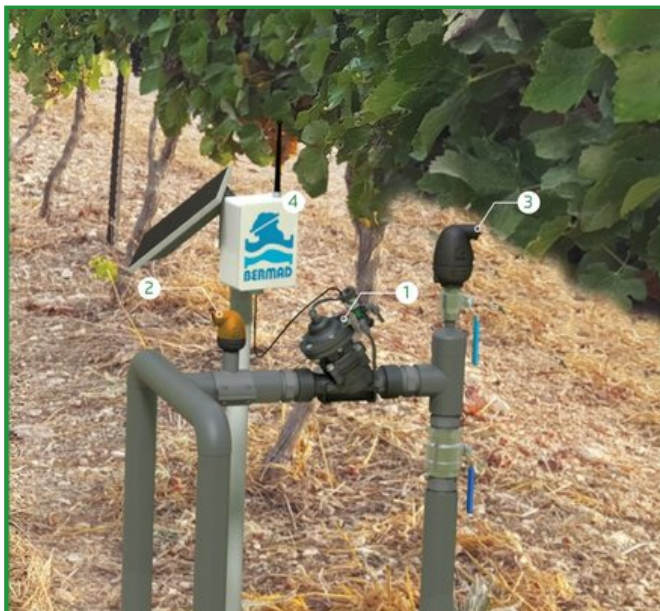


SOLENOID CONTROLLED VALVE - DOUBLE CHAMBER

Model IR-110-DC-3W-X

The BERMAD Model IR-110-DC-3W-X Solenoid Controlled Valve is a double chambered, hydraulically operated, diaphragm actuated control valve that opens and closes drip-tight in response to an electric signal. The Double Chamber Valve is high performance valve and operates at low pressures.



- [1] BERMAD Model IR-110-DC-3W-X Opens in response to electric signal.
- [2] Kinetic Air Valve Model IR-K10
- [3] Combination Air Valve Model IR-C10
- [4] RTU-Remote Terminal Unit

Features & Benefits

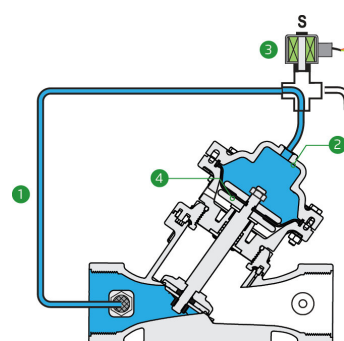
- Hydraulic Control Valve with Solenoid Control
 - Line pressure driven
 - Electrically controlled On/Off
 - Suitable also for remote and/or elevated systems
- Double Chamber Design
 - Full powered opening and closing
 - Non-slam closing characteristic
 - Protected diaphragm
- Engineered Composite Valve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

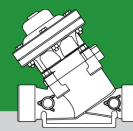
Typical Applications

- 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:

Line Pressure [1] is applied to the Control Chamber [2], through the opened 3-Way Solenoid [3]. This creates superior closing force that moves the Diaphragm Assembly [4] to a closed position. Energizing the Solenoid causes it to switch, discharging pressure from the control chamber and thereby opening the main valve.





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

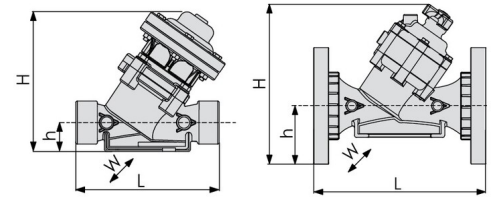
DC latch solenoid:

S-982-3W P.B.

*For other solenoids please consult [BERMAD](#)

Technical Specifications

For other patterns and end connection types, Please refer to [BERMAD](#) full engineering page.



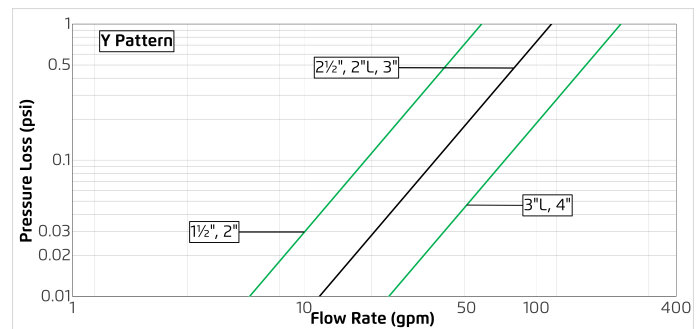
Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
1½" ; DN40	"Y" (globe)	Threaded	4	7⅞	7⅞	1⅞	5	0.034	58
2" ; DN50	"Y" (globe)	Threaded	4	9⅞	7⅞	1⅞	5	0.034	58
2"L ; DN50L	"Y" (globe)	Threaded	4.9	9⅞	8⅞	1⅞	5⅞	0.045	116
2½" ; DN50L	"Y" (globe)	Threaded	4.9	9⅞	8⅞	1⅞	5⅞	0.045	116
3" ; DN80	"Y" (globe)	Threaded	5	11⅞	9⅞	2⅞	5⅞	0.045	116
3" ; DN80	"Y" (globe)	Plastic Flanges	7.1	12⅞	11	4	7⅞	0.045	116
3" ; DN80	"Y" (globe)	Metal Flanges	11	12⅞	11	4	7⅞	0.045	116
3"L ; DN80L	"Y" (globe)	Threaded	13.1	13⅞	14	2⅞	8⅞	0.15	231
3"L ; DN80L	"Y" (globe)	Plastic Flanges	14.3	13⅞	15⅞	4	8⅞	0.15	231
3"L ; DN80L	"Y" (globe)	Metal Flanges	16.3	13⅞	15⅞	4	8⅞	0.15	231
4" ; DN100	"Y" (globe)	Plastic Flanges	16.8	14⅞	16	4½	8⅞	0.15	231
4" ; DN100	"Y" (globe)	Metal Flanges	21	14⅞	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.

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 = gpm @ ΔP of 1 psi

Q = gpm

ΔP = psi