

Solenoid Controlled Valve

with 2-Way Internal Controls

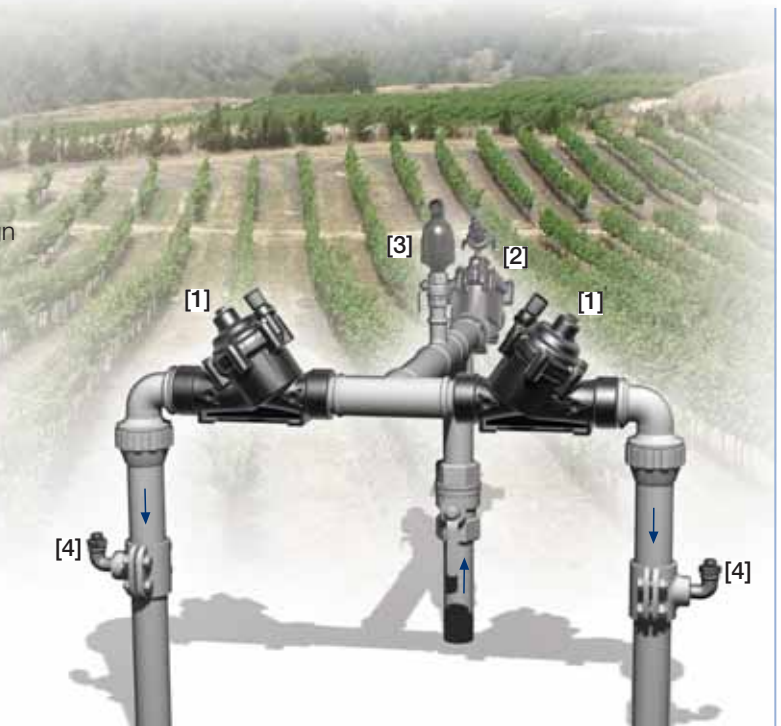
IR-110-NI-2W

The BERMAD 2-Way Solenoid Controlled Valve is a hydraulically operated, diaphragm actuated control valve with internal hydraulic Feed & Bleed control loop. The BERMAD Model IR-110-N1-2W opens and closes drip-tight in response to an electric signal, which causes the solenoid to open or close the valve's internal hydraulic loop.



Features and Benefits

- Line Pressure Driven, Electrically Controlled On/Off
- Internal Hydraulic Feed & Bleed Loop
 - Self cleaning internal control strainer
 - No tubing and fittings
- Engineered Plastic Valve with Industrial Grade Design
 - Highly durable, chemical and cavitation resistant
 - No internal bolts and nuts
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity – Low pressure loss
- Unitized Flexible Super Travel (FST) Diaphragm and Guided Plug
 - Smooth closing
 - Requires low opening and actuation pressure
 - Prevents diaphragm erosion and distortion
- Simple In-Line Inspection and Service

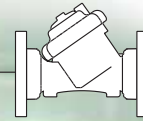


Typical Applications

- Computerized Irrigation Systems
- Remote/Elevated Systems
- Turf & Buried Pipe Applications
- Industrial Greenhouse Irrigation
- Low Supplied Pressure Irrigation Systems
- Energy Saving Irrigation Systems

- [1] BERMAD Models IR-110-N1-2W open in response to electric signals.
- [2] BERMAD Relief Valve Model IR-13Q
- [3] BERMAD Air Valve Model ARA-A-P-P
- [4] BERMAD Vacuum Breaker Model 1/2"-ARV

BERMAD Irrigation



IR-I10-NI-2W

For full technical details, refer to Engineering Section.

100 Series hYflow

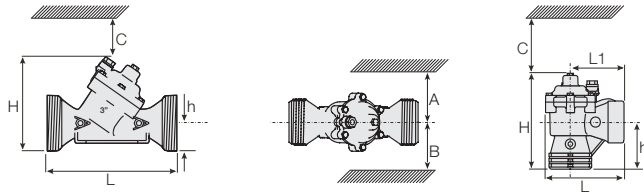
On/Off Control

Technical Specifications

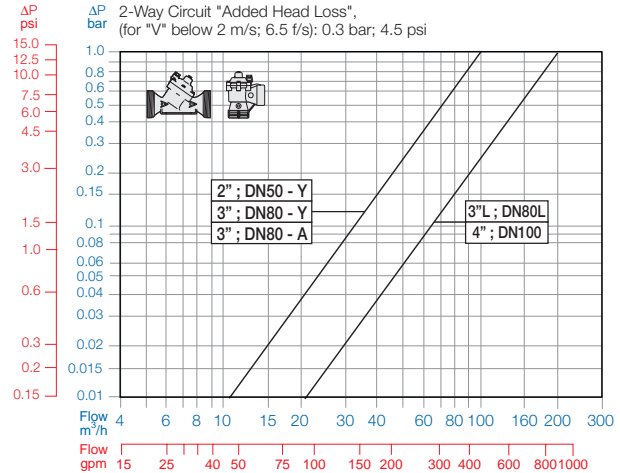
Dimensions and Weights

Pattern Size	Angle DN Inch	Y (Oblique)				
		80-T 3-T	50-T 2-T	65-T* 2 1/2-T*	80-T 3-T	80L-T 3L-T
L (L1)	mm	187 (130)	230	230	298	300
	inch	7.4 (5.1)	9.1	9.1	11.7	11.8
H (Hf)	mm	235 (245)	170 (185)	170 (185)	180 (195)	240
	inch	9.3 (9.6)	6.7 (7.3)	6.7 (7.3)	7.1 (7.7)	9.5
C	mm	53	140	140	140	180
	inch	2.1	6	6	6	8
h	mm	117	40	40	50	60
	inch	4.6	1.6	1.6	2.0	2.4
A; B	mm	320	135	135	190	190
	inch	12.6	6	6	8	8
Weight	Kg	1.6	1.35	1.4	1.6	3.0
	lb.	3.5	3.0	3.1	3.5	6.6

* 2 1/2"; DN65 Male Thread BSP-F, for PVC glue Unions.



Flow Chart



Technical Data

Valve Configurations & Size:

Oblique: 2, 2 1/2, 3, 3L, 4 & 6"; DN50, 65, 80, 80L, 100 & 150

Angle: 3"; DN80

End Connections:

Threaded: 2, 2 1/2, 3 & 3"L; DN50, 65, 80 & 80L

Flanged: 3, 3L, 4, & 6"; DN80, 80L, 100 & 150

Grooved: 6"; DN150

Pressure Rating: 10 bar; 145 psi

Operating Pressure Range: 0.35-10 bar; 5-145 psi

Materials:

Body, Cover and Plug: Glass-Filled Nylon

Diaphragm: NR, Nylon Fabric Reinforced

Seals: NR

Spring: Stainless Steel

Cover Bolts: Stainless Steel

Control Accessories: Plastic

Tubing and Fittings: Plastic

Solenoid Voltage Range:

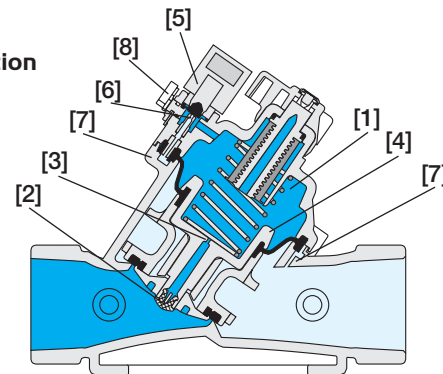
S-390: 24 VAC, 24 VDC

S-392: 9-20 VDC, Latch

Other voltages available.

For full electric data, refer to Accessories Section.

Operation



Line Pressure is applied to the Control Chamber [1] through the Internal Strainer [2] and the Orifice [3]. This creates superior closing force that moves the Diaphragm Assembly [4] to a closed position. Opening the Solenoid [5] releases the accumulated pressure from the control chamber, through the Solenoid Seat [6] and the Internal Passage [7] to the downstream, thereby opening the main Valve. The Override Handle [8] enables manual opening.

How to Order

Please specify the requested valve in the following sequence: (for more options, refer to Ordering Guide.)

Sector	Size	Primary Feature	Additional Feature	Pattern	Construction Materials	End Connections	Control Type	Voltage -Main Valve Position	Additional Attributes
IR	2-4" <small>Other sizes available on request.</small>	110	N1	Y	P	BP	2W	4AC	-
Oblique Angle (3"; DN 80 Only)		Y A	BSP BSP-F (Male Threads 2 1/2"; DN65 only) NPT Plastic Flanges* Metal Flanges* ("Corona") Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D	BP BS NP FF CC	9VDC - Latch 24VDC - N.C. 24VAC - N.C.	9DS 4DC 4AC	Low Preset Pressure (below 2 bar) Plastic Pressure Test Point Other attributes available on request	2 5	

Other electrical ratings available on request.



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