

Solenoid Controlled Valve

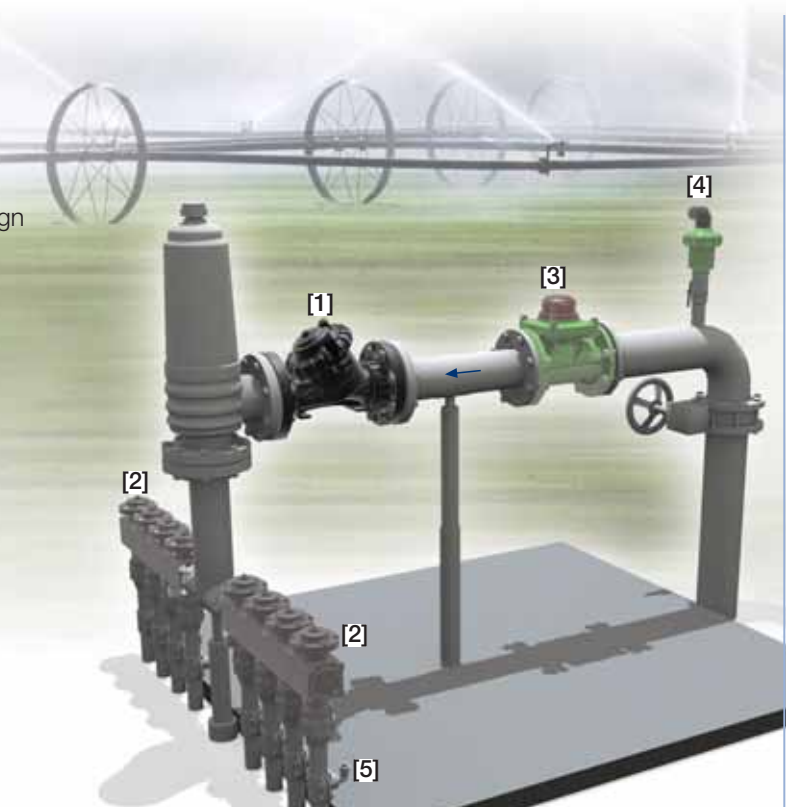
IR-110-X

The BERMAD Solenoid Controlled Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts in response to an electric signal.



Features and Benefits

- Hydraulic Control Valve with Solenoid Control
 - Line pressure driven
 - Electrically controlled On/Off
- Engineered Plastic Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection sizes and types
 - Articulated flange connections eliminate mechanical and hydraulic stresses
 - Highly durable, chemical and cavitation resistant
- 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 actuation pressure
 - Prevents diaphragm erosion and distortion
- User-friendly Design
 - Simple in-line inspection and service



Typical Applications

- Computerized Irrigation Systems
- Remote and/or Elevated Systems
- Distribution Centers
- Low Supplied Pressure Irrigation Systems
- Energy saving Irrigation Systems

- [1] BERMAD Model IR-110-X opens in response to an electric signal.
- [2] BERMAD Manifold Valve Model IR-MVS-30540-KIT
- [3] BERMAD Water Meter Model WPH
- [4] BERMAD Air Valve Model ARC-A-P-I
- [5] BERMAD Vacuum Breaker Model 1/2" ARV



IR-II0-X

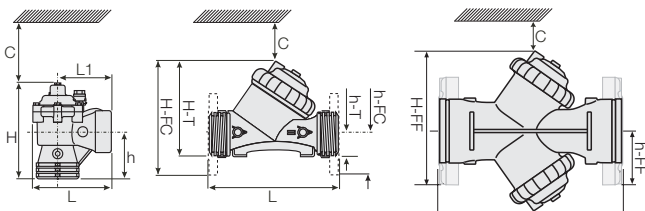
For full technical details, refer to Engineering Section.

Technical Specifications

Dimensions and Weights

Pattern	Angle	Y (Oblique)						Y "Boxer"
		80-T ⁽¹⁾ 3-T ⁽¹⁾	80-T ⁽¹⁾ 3-T ⁽¹⁾	80-FC ⁽²⁾ 3-FC ⁽²⁾	80L-FC ⁽²⁾ 3L-FC ⁽²⁾	100-FC ⁽²⁾ 4-FC ⁽²⁾	150-FF ⁽³⁾ 6-FF ⁽³⁾	
L (L1)	mm	187 (130)	298	308	310	350	480	
	inch	7.4 (5.1)	11.7	12.1	12.2	13.8	18.9	
H (Hf)	mm	235 (245)	180 (195)	240 (255)	280	294	285	
	inch	9.3 (9.6)	7.1 (7.7)	9.4 (10)	11	11.6	11.2	
C	mm	53	53	600	600	600	600	
	inch	2.1	2.1	4	4	23.6	23.6	
h	mm	117	50	100	100	112	145	
	inch	4.6	2	3.9	3.9	4.4	5.7	
Weight	Kg	1.6	1.6	4.4	5.9	7.6	12.5	
	lb.	3.5	3.5	9.7	13	16.7	27.6	

(1) "T" = Threaded end connections
 (2) "FC" = Flanged, Corona (Metal) end connections
 (3) "FF" = Flanged, Universal Plastic end connections



Technical Data

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

Patterns:

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

Angle: 3"; DN80

End Connections:

Threaded: 3 & 3"L; DN80 & 80L

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

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

Control Accessories: Plastic

Tubing and Fittings: Plastic

Solenoid Voltage Range:

S-390 & S-400: 24 VAC, 24 VDC

S-392 & S-402: 9-20 VDC, Latch

S-982 & S-985: 12-50 VDC, Latch

Other voltages available

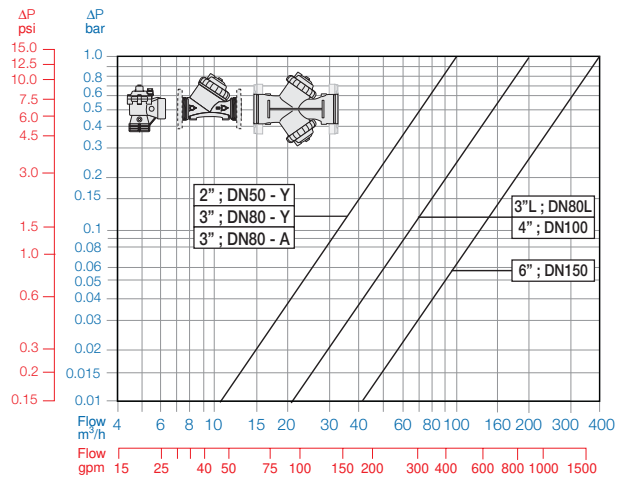
How to Order

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

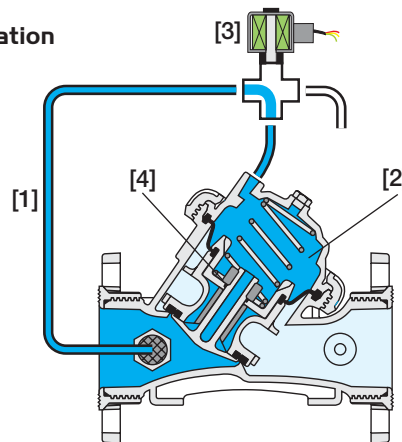
Sector	Size	Primary Feature	Additional Feature	Pattern	Construction Materials	End Connections	Control Type	Voltage -Main Valve Position	Additional Attributes
IR	3-6" <small>Other sizes available on request.</small>	110	00	Y	P	FF	3W	A4C	X
		Y A	Threaded BSP (Female) Threaded NPT (Female) Plastic Flanges* Metal Flanges* ("Corona") Grooved (6"; DN150 Only)	BP NP FF CC VI	9VDC - 12VDC - 24VDC - 24VDC - 24VAC - 24VAC - 24VAC, Lightning Proof - 24VAC, Lightning Proof -	Latch Latch N.C. N.O. N.C. N.O. N.C. N.O.	9DS 1DS 4DC 4DC 4AC 4AO 4RC 4RO	3-Way Control Other attributes available on request	X

* Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D

Flow Chart



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] toward a closed position. Closing the solenoid causes it to discharge pressure from the control chamber, thereby opening the valve.

