

Solenoid Controlled Valve

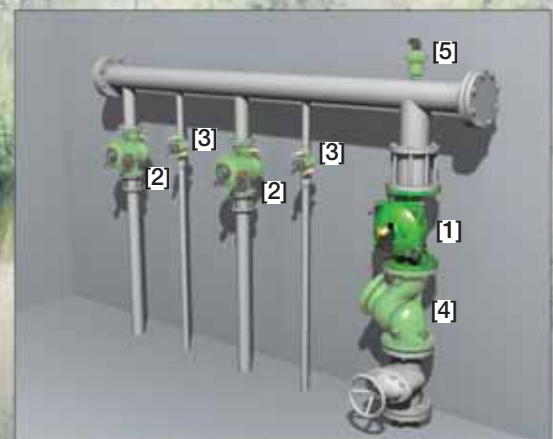
IR-410-X

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
 - Suitable also for remote and/or elevated systems
- Advanced Globe Hydro-Efficient Design
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
- Fully Supported & Balanced Diaphragm
 - Requires low actuation pressure
 - Progressively restrains Valve closing
 - Prevents diaphragm distortion
- User-Friendly Design
 - Simple in-line inspection
 - Easy addition of control features

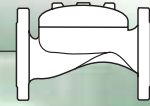


Typical Applications

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

- [1] BERMAD Model IR-410-X opens in response to an electric signal.
- [2] BERMAD Pressure Reducing & Flow Control Hydrometer Model IR-927-M0-RV (3"; DN80 and larger)
- [3] BERMAD Pressure Reducing & Flow Control Hydrometer Model IR-927-M0-RV (3"R; DN80R and smaller)
- [4] BERMAD Strainer Model 70F
- [5] BERMAD Air Valve Model ARC-A-I-I

BERMAD Irrigation



400 Series

On/Off Control

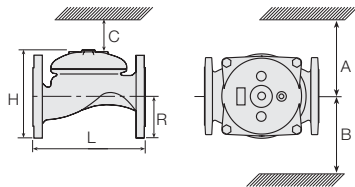
IR-410-X

For full technical details, refer to Engineering Section.

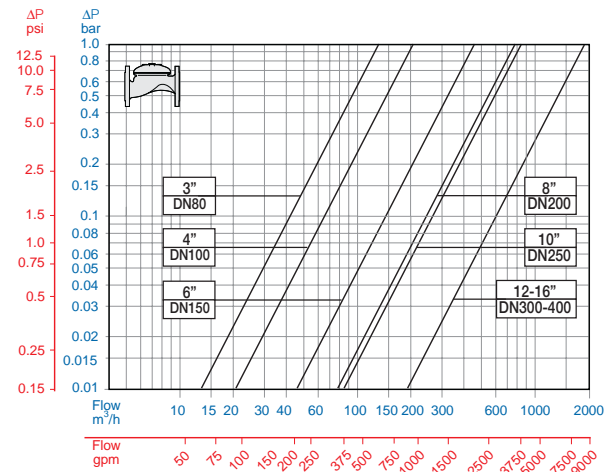
Technical Specifications

Dimensions and Weights

Size	DN Inch	80 3	100 4	150 6	200 8	250 10	300 12	350 14	400 16
L	mm	250	320	415	500	605	725	742	742
	inch	9.8	12.6	16.3	19.8	23.8	28.5	29.2	29.2
H	mm	210	242	345	430	460	635	655	965
	inch	8.3	9.5	13.6	16.9	18.1	25	25.8	38
C	mm	125	145	207	258	276	381	393	579
	inch	5	5.7	8.2	10.2	10.9	15	15.5	22.8
R	mm	100	112	140	170	202	242	260	300
	inch	3.9	4.4	5.5	6.7	8	9.5	10.2	11.8
A; B	mm	300	312	353	383	403	490	494	500
	inch	11.8	12.3	13.9	15.1	15.9	19.3	19.4	19.7
Weight	Kg	19	28	68	125	140	290	358	377
	lb.	41.9	61.7	149.9	275.6	308.6	639.3	789.2	831.1



Flow Chart



Technical Data

Patterns and Sizes: Globe: 3-16"; DN80-400 Angle: 3-4"; DN80-100

End Connections:

Size		3"	4"	6"	8-16"
		DN80	DN100	DN150	DN200-400
Threaded	Globe	■			
	Angle	■			
Flanged	Globe	■	■	■	■
	Angle	■	■		
Grooved	Globe	■	■	■	
	Angle	■	■		

Pressure Rating: 16 bar; 232 psi

Operating Pressure Range: 0.5-16 bar; 7-232 psi

For lower pressure requirements, consult factory

Materials:

Body and Cover:

Polyester Coated Cast or (10"; DN250 and larger) Ductile Iron

Spring: Stainless Steel

Diaphragm: Nylon fabric Reinforced

NR with rugged insert

Bolts, Studs and Nuts:

Zinc-Cobalt plated Steel

Control Accessories: Brass

Tubing and Fittings:

Reinforced Plastic and Brass

Solenoid Voltage Range:

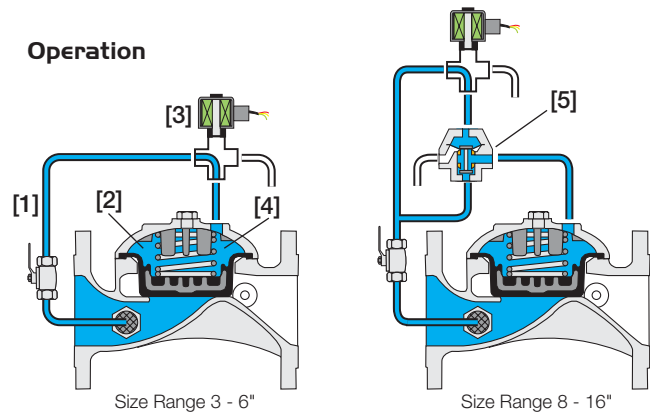
S-390 & S-400: 24 VAC, 24 VDC

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

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

Other Voltages available

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 Valve control chamber, thereby opening it. For 8"; DN200 valves and larger, a 3-Way Hydraulic Relay Valve [5] quickens Valve response.

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	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additional Attributes
IR	3-16" <small>Other sizes available on request.</small>	410	00	-	G"	I	16	PG	4AC	PB	X
	Globe Angle (up to 4"; DN100)	G A	ISO-16 ISO-10 IS 14 (ISO 10/4 Holes) ANSI-125 ANSI-150 JIS-10 BST-D Grooved (3-6"; DN80-150 only)	16 10 14 A1 A5 J1 BD VI	16 10 14 A1 A5 J1 BD VI	9VDC - 12VDC- 24VDC- 24VDC- 24VAC - 24VAC - 24VAC - 24VAC, Lightning Proof - 24VAC, Lightning Proof -	Latch Latch N.C. N.O. N.C. N.O. N.C. N.C. N.O.	9DS 1DS 4DC 4DC 4AC 4AO 4RC 4RO	Plastic Tubing & Brass Fittings Copper Tubing & Brass Fittings	PB CB	
	Cast Iron (up to 8"; DN200) Ductile Iron (10"; DN250 & above)	I C								3-Way Control Metal Control Accessories Manual Selector Valve Position Indicator ⁽¹⁾ Flow Stem ⁽¹⁾	X R Z I M

Other end connections available on request

(1) Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M.
Other attributes available on request.



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