

Pressure Reducing and Sustaining Valve

with Solenoid Control

IR-423-55-R

The BERMAD Pressure Reducing and Sustaining Valve with Solenoid Control is a hydraulically operated, diaphragm actuated control valve that performs three independent functions. The BERMAD Model IR-423-55-R sustains the preset minimum upstream pressure, reduces downstream pressure to a constant preset maximum, and it either opens or shuts in response to an electric signal.



Features and Benefits

- Hydraulic Pressure Control with Solenoid Control
 - Line pressure driven
 - Sustains upstream line pressure
 - Controls system fill-up
 - Protects downstream systems
 - Electrically controlled On/Off
- Advanced Globe Hydro-Efficient Design
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
- Fully Supported & Balanced Diaphragm
 - Requires low opening and actuation pressure
 - Excellent low flow regulation performance
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- Simple In-Line Inspection and Service

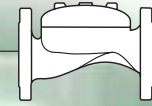


Typical Applications

- Computerized Irrigation
- Remote and/or Elevated Plots
- Pressure Zone Prioritizing
- Line Fill-Up Control
- Line Emptying Prevention
- Pressure Reducing Stations
- Irrigation Machines
- Low Supplied Pressure Irrigation Systems

- [1] BERMAD Model IR-423-55-R opens in response to an electric signal, sustains filter back flush pressure and reduces system pressure.
- [2] BERMAD Relief Valve Model IR-43Q
- [3] BERMAD Water Meter Model WPH
- [4] BERMAD Air Valve Model ARC-A-I-I
- [5] BERMAD Air Valve Model ARC-A-P-I
- [6] BERMAD Filter Flush Valve Model IR-405-Z

BERMAD Irrigation



IR-423-55-R

For full technical details, refer to Engineering Section.

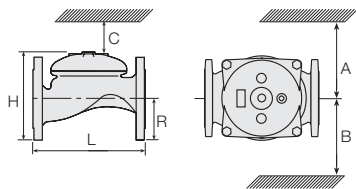
400 Series

Pressure Reducing

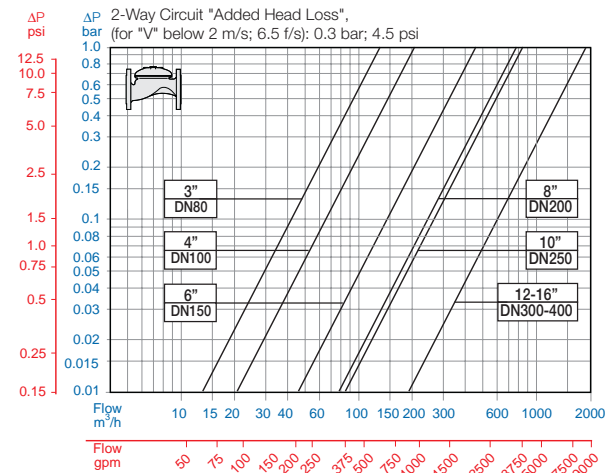
Technical Specifications

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

Setting Range: 1.5-10 bar; 22-145 psi

Setting ranges vary according to specific pilot spring. Please 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
Reinforced Plastic and Brass

Solenoid Voltage Range:

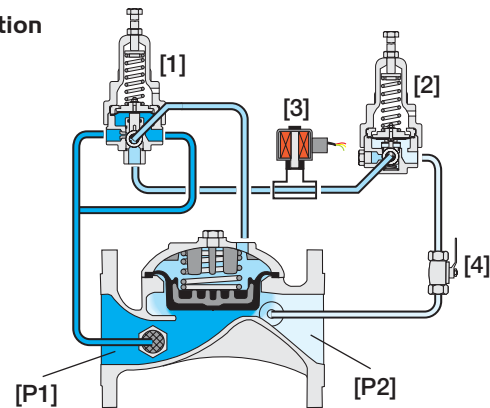
S-390 & S-400: 24 VAC, 24 VDC

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

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

Other Voltages available

Operation



The Pressure Sustaining Pilot [1] commands the Valve to throttle closed should Upstream Pressure [P1] drop below pilot setting, and to modulate open when [P1] rises above it. When [P1] is high, the Pressure Reducing Pilot [2] commands the Valve to prevent Downstream Pressure [P2] from rising above pilot setting. Closing the Solenoid [3] causes the main Valve to shut.

The Downstream Cock Valve [4] enables manual closing.

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>	423	50	-	G	I	16	PG	4AC	PB	R
	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	9VDC - 12VDC - 24VDC - 24VAC - 24VAC, Lightning Proof - Other electrical ratings are available.	Latch Latch N.C. N.C N.C	9DS 1DS 4DC 4AC 4AC			R F I M
	Cast Iron (up to 8"; DN200) Ductile Iron (10"; DN250 & above)	I C				Plastic Tubing & Brass Fittings Copper Tubing & Brass Fittings		PB CB			
										Metal Control Accessories Large Control Filter Valve Position Indicator ⁽¹⁾ Flow Stem ⁽¹⁾ ⁽¹⁾ Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M. Other attributes available on request.	



info@bermad.com • www.bermad.com

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