

Flow Control Valve

with Solenoid Control

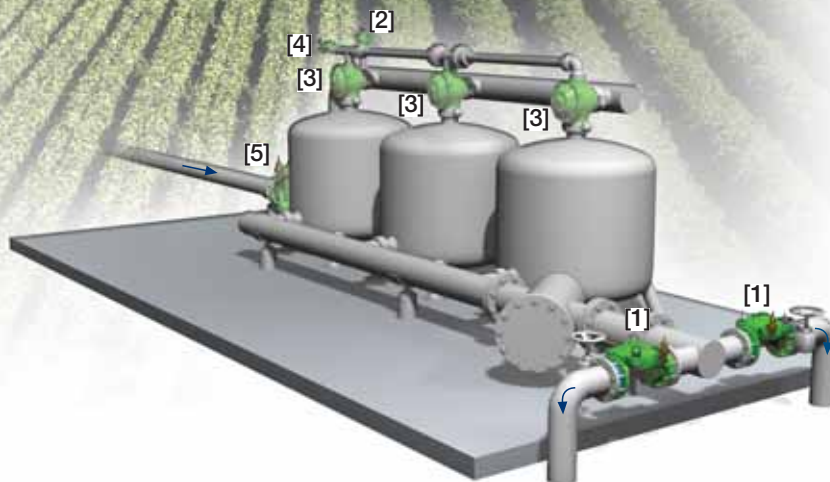
IR-470-55-bRU

The BERMAD Flow Control Valve with Solenoid Control is a hydraulically operated, diaphragm actuated control valve that controls system demand to a preset maximum flow rate. It either opens or shuts in response to an electric signal.



Features and Benefits

- Hydraulic Flow & Pressure Control with Solenoid Control
 - Line pressure driven
 - Limits fill-up rate and consumer over-demand
 - Electrically controlled On/Off
- Advanced Globe Hydro-Efficient Design
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
- Fully Supported & Balanced Diaphragm
 - Requires low actuation pressure
 - Excellent low-flow regulation performance
 - Prevents diaphragm distortion
- Hydraulic flow sensor (upstream installation)
 - No Moving parts
 - No need for flow straightening
- User-Friendly Design
 - Easy flow and pressure setting
 - Simple in-line inspection and service

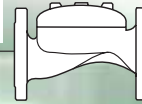


Typical Applications

- Computerized Irrigation Systems
- Remote and/or Elevated Plots
- Line Fill-Up Control
- Multiple Independent Consumer Systems
- Irrigation Machines
- Distribution Centers
- Filter Stations

- [1] BERMAD Model IR-470-55-bRU opens in response to an electric signal, limits fill-up rate and consumer over-demand, maintaining filters back flush pressure.
- [2] BERMAD Relief Valve Model IR-43Q-R
- [3] BERMAD Backwash Valve Model IR-3x2-350-A-I
- [4] BERMAD Backwash Flow Control Valve Model IR-470-beKU
- [5] BERMAD Pressure Reducing Hydrometer with Solenoid Control Model IR-920-M0-55-R

BERMAD Irrigation



400 Series

Flow Control

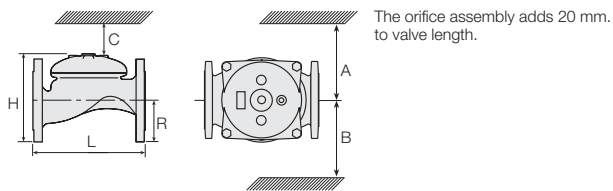
IR-470-55-bRU

For full technical details, refer to Engineering Section.

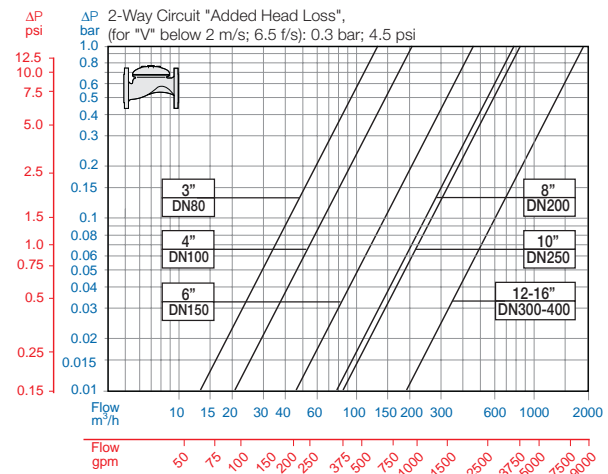
Technical Specifications

Dimensions and Weights

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



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

Flow Setting Range: ±20% from valve predetermined flow

Orifice diameter is calculated in accordance with desired ΔP at predetermined flow:

Although the standard calculated ΔP is 0.4 bar; 5.5 psi,

the actual head loss is 0.2 bar; 2.8 psi.

Materials:

Body and Cover:

Polyester Coated Cast or Ductile Iron
(8"; DN200 and larger)

Spring: Stainless Steel

Diaphragm:

Nylon fabric NR
(Reinforced 6" DN150 and larger)

Control Accessories: Brass

Tubing and Fittings:
Reinforced Plastic and Brass

Solenoid Voltage Range:

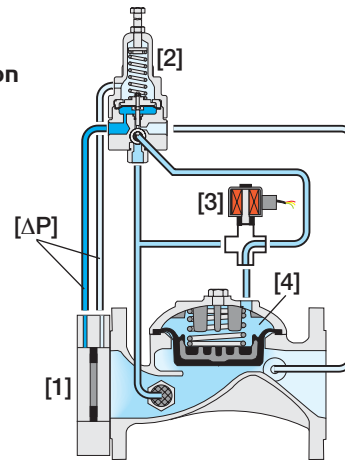
S-390 & S-400: 24 VAC, 24 VDC

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

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

Other Voltages available

Operation



Pressure Differential [ΔP] across the Orifice Assembly [1] is in direct proportion to demand. The Flow Pilot [2] continuously senses [ΔP] and commands the Valve to throttle closed should demand rise above pilot setting. The Solenoid [3] hydraulically connects the flow pilot to the main Valve Control Chamber [4]. In response to an electric signal, the solenoid switches, directing line pressure into the control chamber causing the main Valve to shut.

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>	470	55	-	G	I	16	PG	4AC	PB	bRU
Globe Angle (up to 4"; DN100)		G A	ISO-16 ISO-10 IS 14 (ISO 10/4 Holes) ANSI-125 ANSI-150 JIS-10		16 10 14 A1 A5 J1	9VDC - 12VDC - 24VDC - 24VAC - 24VAC, Lightning Proof - N.C. 24VAC, Lightning Proof - N.O.	Latch Latch N.C. N.O. N.C. N.O.	9DS 1DS 4DC 4AC 4AO 4RC 4RO	Servo Metal Control Accessories Orifice Assembly Large Control Filter Valve Position Indicator ⁽¹⁾ Flow Stem ⁽¹⁾	b R U F I M	
Cast Iron (up to 6"; DN150) Ductile Iron (8"; DN200 & above)		I C	BST-D Grooved (3-6" DN80-150 only)		BD VI	Other electrical ratings are available.		PB CB	(1) Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M. Other attributes available on request.		





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