

Pressure Reducing and Sustaining Control Valve

with Solenoid Control

IR-123-55

The BERMAD Model IR-123-55 is a hydraulic operated, diaphragm actuated control valve that performs three independent functions. It 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
 - Protects downstream systems
 - Sustains supply line pressure and controls system fill-up
- Engineered Plastic Valve with Industrial Grade Design
 - Adaptable on-site to a 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 a Guided Plug
 - Accurate and stable regulation with smooth closing
 - Requires low actuation pressure
 - Prevents diaphragm erosion and distortion
- User-Friendly Design
 - Easy pressure level setting
 - Simple in-line inspection and service

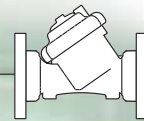


Typical Applications

- Computerized Irrigation Systems
- Pressure Zone Prioritizing
- Line Fill-up Control
- Line Emptying Prevention
- Pressure Reducing Stations
- Energy Saving Irrigation Systems

- [1] BERMAD Model IR-123-55 opens in response to an electric signal, sustaining filters back flush pressure, and establishing reduced pressure zone.
- [2] BERMAD Relief Valve Model IR-13Q
- [3] BERMAD Water Meter Model WPH
- [4] BERMAD Model IR-900-M0-54-RZ
- [5] BERMAD Air Valve Model ARC-A-P-I

BERMAD Irrigation



IR-123-55

For full technical details, refer to Engineering Section.

100 Series hYflow

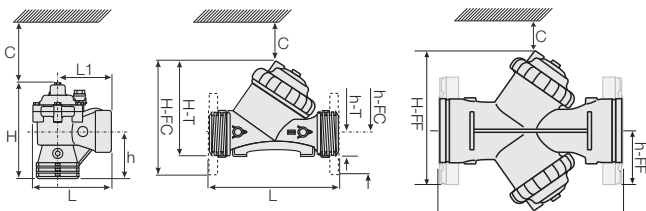
Pressure Reducing

Technical Specifications

Dimensions and Weights

Pattern	DN Inch	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

Setting Range: 1-7 bar; 15-100 psi

Setting ranges vary according to specific pilot spring. Please consult factory.

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

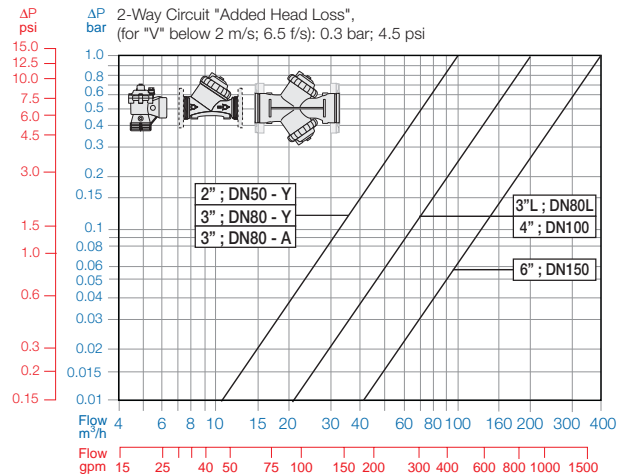
How to Order

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

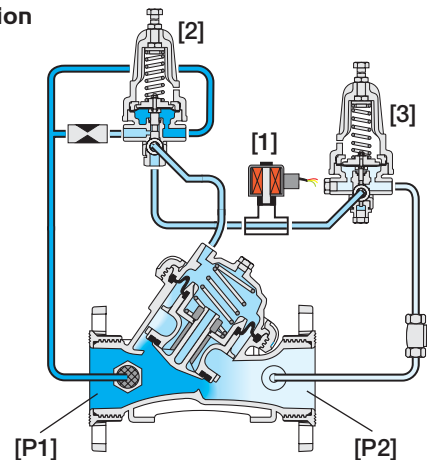
Sector	Size	Primary Feature	Additional Feature	Pattern	Construction Materials	End Connections	Control Type	Voltage -Main Valve Position	Additional Attributes
IR	3-6" <small>Other sizes available on request.</small>	123	55	Y	P	FF	2W	4AC	-
Oblique	Angle (3"; DN80 Only)	Y A	Threaded BSP (Female) Threaded 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 - N.C. 24VAC, Lightning Proof - N.O.	Latch Latch N.C. N.O. N.C. N.O. 4RC 4RO	9DS 1DS 4DC 4DC 4AC 4AO	Low Preset Pressure (below 2 bar) Plastic Pressure Test Point Other attributes available on request	2 5

Other electrical ratings available on request.

Flow Chart



Operation



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



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