

Pressure Reducing and Sustaining Valve

with Hydraulic Control

IR-123-50

The BERMAD Pressure Reducing and Sustaining Control Valve with Hydraulic Remote Control is a hydraulically 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 a remote pressure command.



Features and Benefits

- Line Pressure Driven, Hydraulically Controlled On/Off
 - Protects downstream system
 - Sustains upstream line pressure
 - Controls system fill-up
- 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
 - Accurate and stable regulation with smooth closing
 - Requires low opening and actuation pressure
 - Prevents diaphragm erosion and distortion
- Simple In-Line Inspection and Service



Typical Applications

- Computerized Irrigation Systems
- Pressure Zone Prioritizing
- Line Fill-up Control
- Pressure Reducing Stations
- Low Supplied Pressure Irrigation Systems
- Energy Saving Irrigation Systems

- [1] BERMAD Model IR-123-50 opens upon pressure drop command, sustains filters back flush pressure and establishes reduced pressure zone.
- [2] BERMAD Relief Valve Model IR-13Q
- [3] BERMAD Water Meter Model WPH
- [4] BERMAD Air Valve Model ARA-A-P-P

BERMAD Irrigation



IR-123-50

For full technical details, refer to Engineering Section.

100 Series hYflow

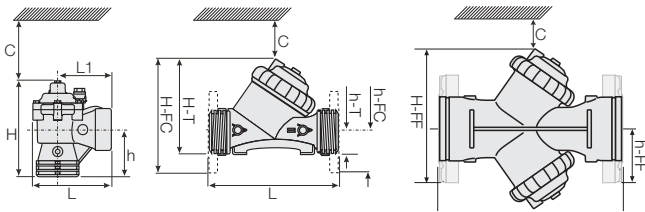
Pressure Reducing

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

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

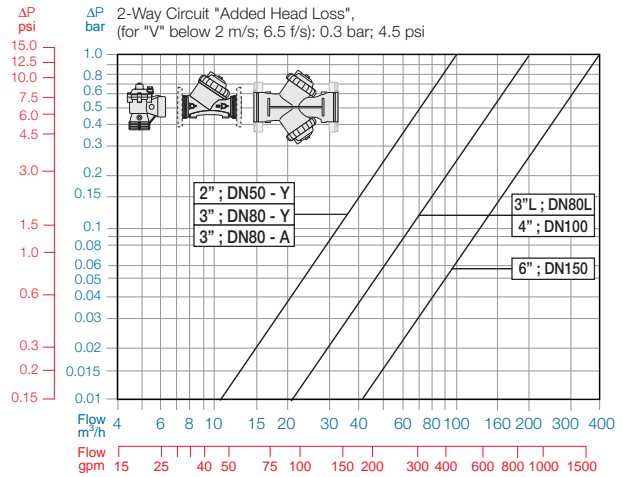
Seals: NR

Spring: Stainless Steel

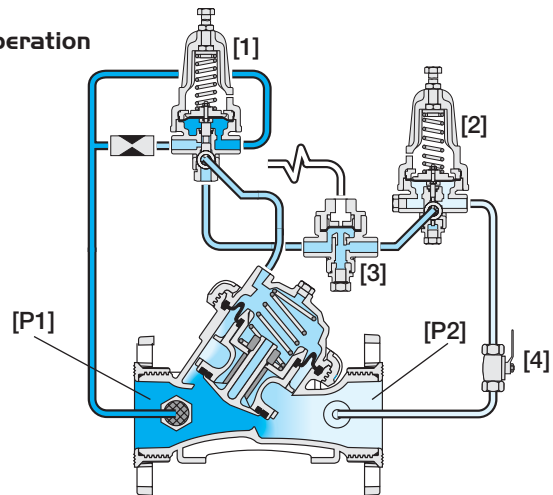
Control Accessories: Plastic

Tubing and Fittings: Plastic

Flow Chart



Operation



The Pressure Sustaining Pilot [1] commands the main Valve to throttle closed should Upstream Pressure [P1] drop below pilot setting, and to modulate open when [P1] rises above it. The Pressure Reducing Pilot [2] commands the main Valve to prevent Downstream Pressure [P2] from rising above pilot setting. The Hydraulic Relay Valve [3] closes upon pressure rise command, shutting the main Valve. 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	Pattern	Construction Materials	End Connections	Control Type	Voltage -Main Valve Position	Additional Attributes
IR	3-6"	123	50	Y	P	FF	2W	-	-
	Other sizes available on request.	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	Low Preset Pressure (below 2 bar) Plastic Pressure Test Point Other attributes available on request	2 5		

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



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