

Pressure Reducing Valve

with Hydraulic Control

IR-120-50-XZ

The BERMAD Pressure Reducing Valve with Hydraulic Control is a hydraulically operated, diaphragm actuated control valve that reduces higher upstream pressure to lower constant downstream pressure and opens fully upon line pressure drop. It either opens or shuts in response to a remote pressure command.



Features and Benefits

- Line pressure driven, Hydraulically Controlled On/Off
 - Protects downstream systems
 - Opens fully upon line pressure drop
- Engineered Plastic Valve with Industrial Grade Design
 - Highly durable, chemical and cavitation resistant
 - No internal bolts and nuts
- 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

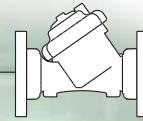
- Computerized Irrigation Systems
- Pressure Reducing Stations
- Systems Subject to Varying Supply Pressure
- Distribution Centers
- Energy Saving Irrigation Systems

[1] BERMAD Model IR-120-50-XZ opens upon pressure-drop command, and establishes reduced pressure zone protecting laterals and distribution line.

[2] BERMAD Automatic Metering Valve Model IR-900-DO

[3] BERMAD Vacuum Breaker Model 1/2"-ARV

BERMAD Irrigation



IR-I20-50-XZ

For full technical details, refer to Engineering Section.

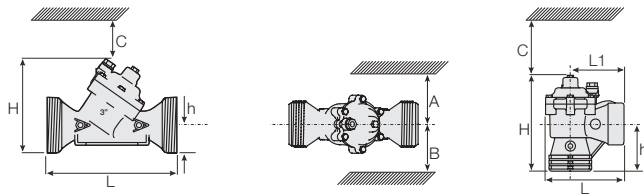
100 Series hYflow
Pressure Reducing
Standard

Technical Specifications

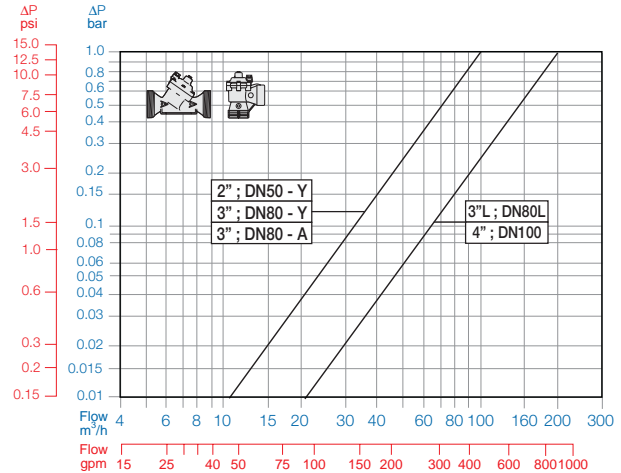
Dimensions and Weights

Pattern	Size	DN Inch	Angle		Y (Oblique)		
			80-T 3-T	50-T 2-T	65-T* 2 1/2-T*	80-T 3-T	80L-T 3L-T
L (L1)	mm		187 (130)	230	230	298	300
	inch		7.4 (5.1)	9.1	9.1	11.7	11.8
H (Hf)	mm		235 (245)	170 (185)	170 (185)	180 (195)	240
	inch		9.3 (9.6)	6.7 (7.3)	6.7 (7.3)	7.1 (7.7)	9.5
C	mm		53	140	140	140	180
	inch		2.1	6	6	6	8
h	mm		117	40	40	50	60
	inch		4.6	1.6	1.6	2.0	2.4
A; B	mm		320	135	135	190	190
	inch		12.6	6	6	8	8
Weight	Kg		1.6	1.35	1.4	1.6	3.0
	lb.		3.5	3.0	3.1	3.5	6.6

* 2 1/2"; DN65 Male Thread BSP-F, for PVC glue Unions.



Flow Chart



Technical Data

Valve Configurations & Size:

Oblique: 2, 2 1/2, 3, 3L, 4 & 6"; DN50, 65, 80, 80L, 100 & 150

Angle: 3"; DN80

End Connections:

Threaded: 2, 2 1/2, 3 & 3"; DN50, 65, 80 & 80L

Flanged: 3, 3L, 4, & 6"; DN80, 80L, 100 & 150

Grooved: 6"; DN150

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

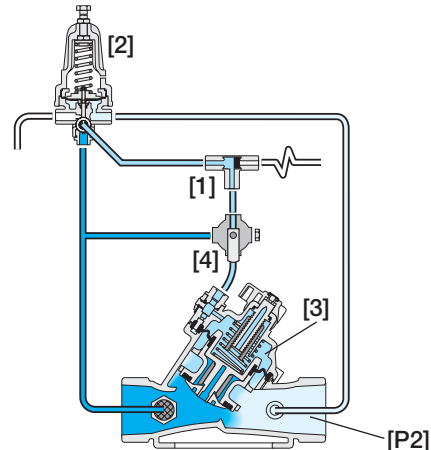
Spring: Stainless Steel

Cover Bolts: Stainless Steel

Control Accessories: Plastic

Tubing and Fittings: Plastic

Operation



The Shuttle Valve [1] hydraulically connects the Pressure Reducing Pilot (PRP) [2] to the Valve Control Chamber [3]. The PRP commands the Valve to throttle closed should Downstream Pressure [P2] rise above setting and to open fully when it drops below setting. Upon pressure rise command, the shuttle valve automatically switches, allowing pressurization of the control chamber, which causes the main Valve to shut. The Manual Selector [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	2-4" Other sizes available on request.	120	00	Y	P	BP	3W	-	XZ
	Oblique Angle (3"; DN 80 Only)	Y A		BSP BSP-F (Male Threads 2 1/2"; DN65 only) NPT Plastic Flanges* Metal Flanges* ("Corona") Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D		BP BS NP FF CC	3-Way Control Manual Selector Flow Stem Flow Stem with Position Indicator Other attributes available on request		X Z M MP



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