

# Pressure Reducing Valve

For Drip-Tape Applications

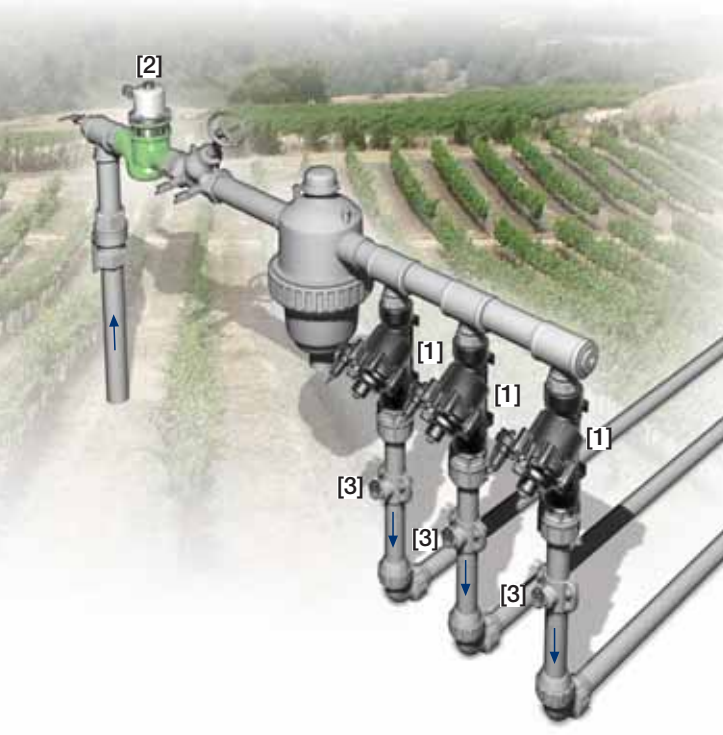
IR-120-bZ

The BERMAD Pressure Reducing Valve is a hydraulically operated, diaphragm actuated control valve that accurately reduces higher upstream pressure to very low and stable preset downstream pressure regardless of fluctuating demand or varying upstream pressure.



## Features and Benefits

- Line Pressure Driven, Hydraulically Controlled
  - Protects downstream systems
- Pressure Reducing Servo Pilot Controlled
  - Dynamic integrated needle valve
  - Settable to 0.5 bar; 7 psi
  - Very low hysteresis
- 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 mechanical stress
- Simple In-Line Inspection and Service



## Typical Applications

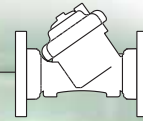
- Drip-Tape Systems
- Low Set Pressure Applications
- Low Supplied Pressure Irrigation Systems
- Energy Saving Irrigation Systems

[1] BERMAD Model IR-120-bZ establishes reduced pressure zone protecting laterals and distribution line.

[2] BERMAD Automatic Metering Valve Model IR-900-D0

[3] BERMAD Vacuum Breaker Model ½"-ARV

# BERMAD Irrigation



## IR-I20-bZ

For full technical details, refer to Engineering Section.

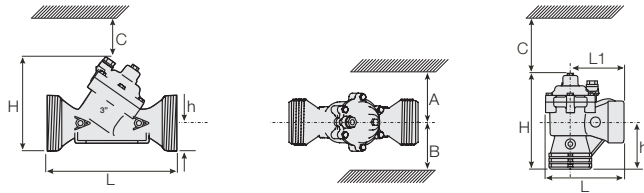
## 100 Series hYflow Pressure Reducing Drip-Tape

### 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.



### 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:** 0.5-1.7 bar; 7-25 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

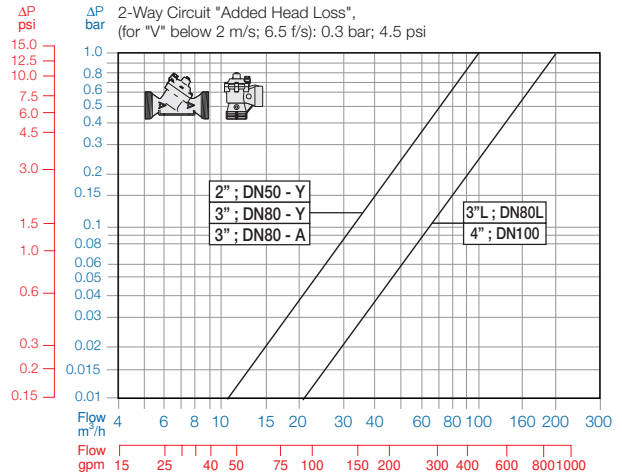
**Spring:** Stainless Steel

**Cover Bolts:** Stainless Steel

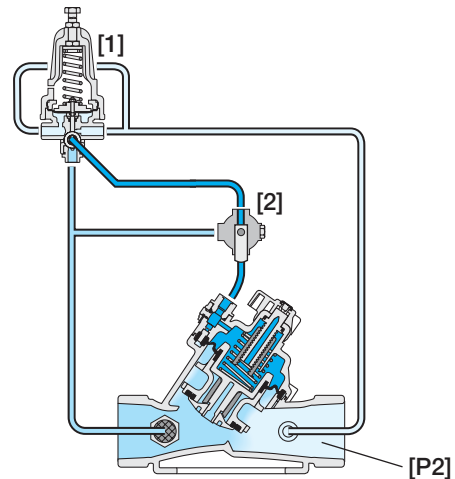
**Control Accessories:** Plastic

**Tubing and Fittings:** Plastic

### Flow Chart



### Operation



The Pressure Reducing Servo Pilot [1] commands the main Valve to throttle closed, preventing Downstream Pressure [P2] from rising above pilot setting, and to modulate open when [P2] drops below pilot setting. The Manual Selector [2] enables local 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" <small>Other sizes available on request.</small>	120	00	Y	P	BP	2W/3W	-	bZ
	Oblique Angle (3"; DN 80 Only)		Y A	BSP BSP-F (Male Threads 2 1/2"; DN65 only) NPT Plastic Flanges* Metal Flanges* ("Corona")		BP BS NP FF CC	Servo Manual Selector Flow Stem Flow Stem with Position Indicator		b Z M MP
					Comply to: ISO PN10, ANSI #125/150, Jis K-10, BS-D		Other attributes available on request		



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