

## Pressure Sustaining Valve

with Solenoid Control

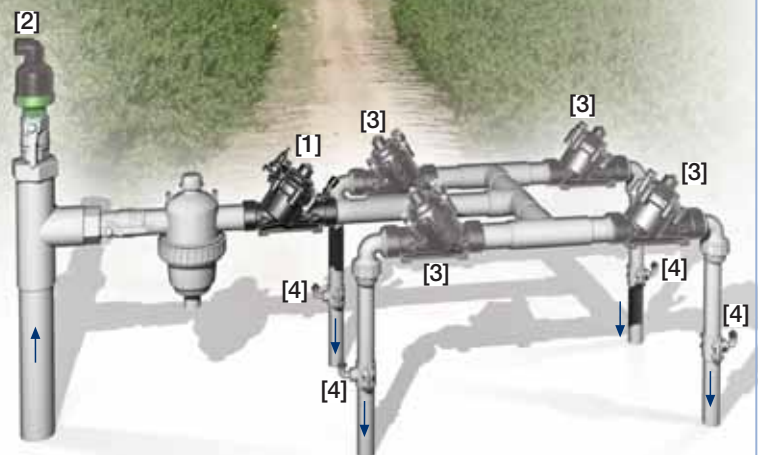
**IR-130-55-X**

The BERMAD Model IR-130-55-X is a hydraulically operated, diaphragm actuated control valve that sustains minimum preset upstream (back) pressure and opens fully when line pressure is in excess of setting. It either opens or shuts in response to an electric signal.



### Features and Benefits

- Line Pressure Driven, Electrically Controlled On/Off
  - ▢ Prioritizes pressure zones & controls system fill-up
  - ▢ Sustains upstream line pressure
  - ▢ Opens fully upon line pressure rise
- 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 actuation pressure
  - ▢ Prevents diaphragm erosion and distortion
- Simple In-Line Inspection and Service

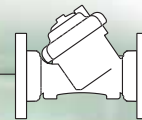


### Typical Applications

- Computerized Irrigation Systems
- Line Fill-Up Control Solutions
- Line Emptying Prevention
- Remote and/or Elevated Plots
- Infield Filters Backwash Pressure Sustaining
- Energy Saving Irrigation Systems

- [1] BERMAD Model IR-130-55-X opens in response to electric signal, sustains supply system pressure preventing emptying, and controls laterals and distribution lines fill-up.
- [2] BERMAD Air Valve Model ARA-A-P-P
- [3] BERMAD Solenoid Controlled Valve Model IR-110-N1-2W
- [4] BERMAD Vacuum Breaker Model 1/2"-ARV

# BERMAD Irrigation



## IR-130-55-X

For full technical details, refer to Engineering Section.

## 100 Series hYflow

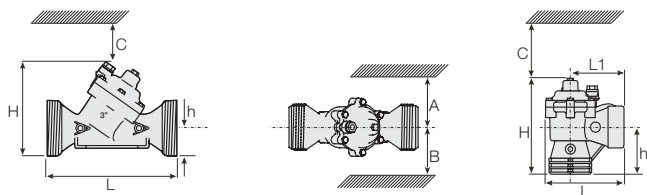
Pressure Sustaining

### Technical Specifications

#### Dimensions and Weights

Pattern Size	DN Inch	Angle 80-T 3-T	Y (Oblique)			
			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"L; 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

#### 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

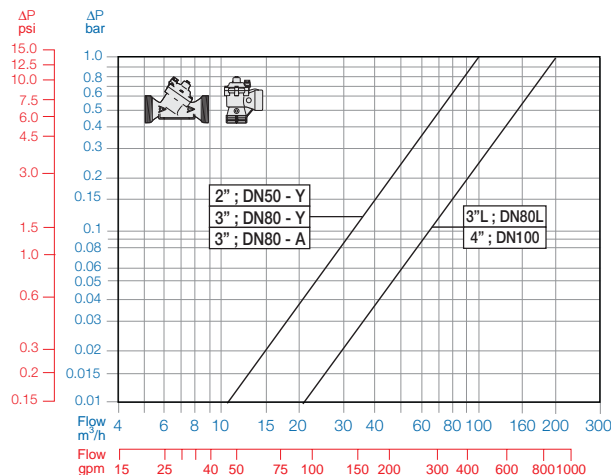
Other voltages available. For full electric data, refer to Accessories Section.

### How to Order

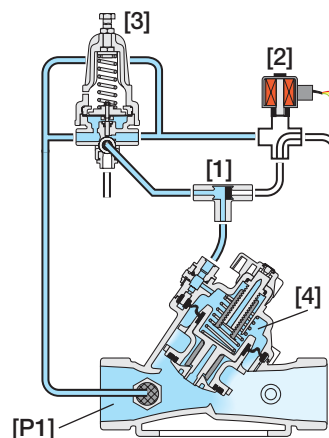
Please specify the requested valve in the following sequence: (for more options, refer to Ordering Guide.)

Sector	Size	Primary Feature	Additional Feature	Pattern	Construction Materials	End Connections	Control Type	Voltage -Main Valve Position	Additional Attributes
IR	2-4"	130	55	Y	P	BP	3W	4AC	X
Other sizes available on request.									
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	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. N.C. N.O.	9DS 1DS 4DC 4DC 4AC 4AO 4RC 4RO	3-Way Control Manual Selector Flow Stem with Position Indicator Plastic Pressure Test Point Other attributes available on request	X Z MP 5

#### Flow Chart



#### Operation



The Shuttle Valve [1] hydraulically connects the Solenoid [2] or the Pressure Sustaining Pilot (PSP) [3] to the Valve Control Chamber [4]. When the solenoid is closed, the PSP commands the Valve to throttle closed should Upstream Pressure [P1] drop below setting and to open fully when [P1] rises above setting. In response to an electric signal, the solenoid switches, directing line pressure through the shuttle valve into the control chamber, and thereby causing the main Valve to shut. The solenoid also features local manual closing.



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