

# Pressure Reducing Valve

with DC Latching Solenoid Control

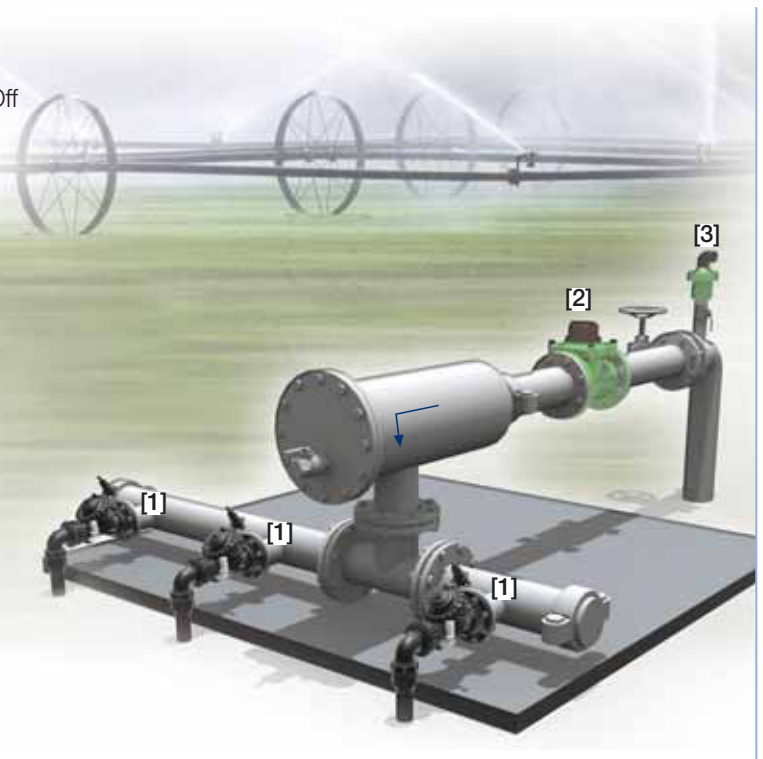
IR-120-55-X LS

The BERMAD Model IR-120-55 is a hydraulically operated, diaphragm actuated control valve that reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure. It either opens or shuts in response to an electric pulse.



## Features and Benefits

- Line Pressure Driven, Electrical Pulse Controlled On/Off
  - Protects downstream systems
- 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 a Guided Plug
  - Accurate and stable regulation with smooth closing
  - Requires low actuation pressure
  - Prevents diaphragm erosion and distortion
- User-Friendly Design
  - Easy pressure setting
  - Simple in-line inspection and service



## Typical Applications

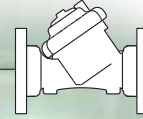
- Battery and/or Solar Operated Irrigation Systems
- Pressure Reducing Stations
- Remote and/or Elevated Plots
- Distribution Centers
- Low Supplied Pressure Irrigation Systems
- Energy Saving Irrigation Systems

[1] BERMAD Model IR-120-55-X LS opens in response to an electric pulse establishing reduced pressure zone.

[2] BERMAD Water Meter Model WPH

[3] BERMAD Air Valve Model ARC-A-I-I

# BERMAD Irrigation



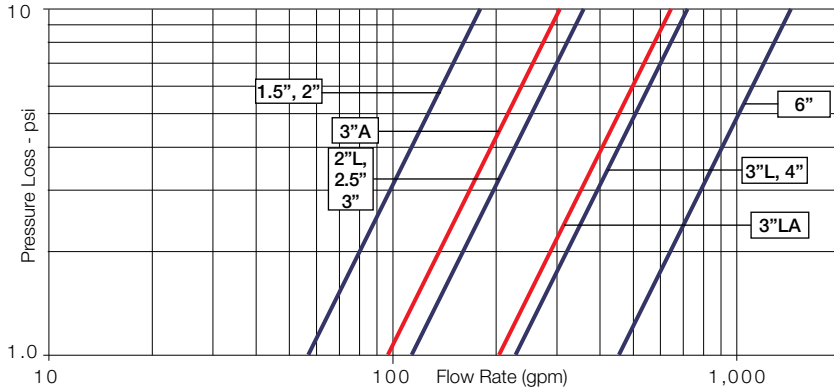
## IR-120-55-XLS

## 100 Series hY flow

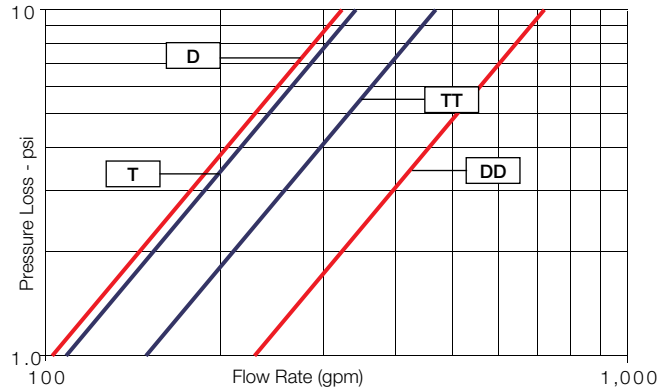
For full technical details, refer to Engineering Section.

### Flow Chart

#### 100 Series, Control Valves "Y" & Angle Patterns



#### 100 Series, Control Valves 3", "T" & Dual Patterns



- T - T model, flow through one side.
- TT - T model, flow through two sides.
- D - Dual model, flow through one side.
- DD - Dual model, flow through two sides.

### Technical Data

**Sizes:** 1½", 2", 2"L, 3", 3"L, 4" & 6"

**Patterns:**

Oblique: 1½", 2", 2"L, 3", 3"L, 4" & 6"

Angle: 3", 3"L & 4"

**End Connections:**

Threaded: 1½", 2", 2"L, 3", 3"L

Flanged: 3", 3"L, 4" & 6"

Grooved: 2", 2"L, 3", 3"L, 4" & 6"

PVC Slip: 3", 3", 3"L, 4"

**Pressure Rating:** 145 psi

**Operating Pressure Range:** 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

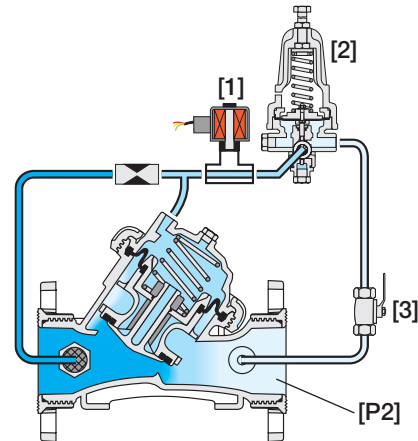
**Solenoid Voltage Range:**

**S-982 & S-985:** 12-50 VDC, Latch

**S-392 & S-402:** 9-20 VDC, Latch

Other voltages available

### Operation



Opening the Solenoid [1] opens the Valve. The Pressure Reducing Pilot [2] commands the valve to throttle closed should Downstream Pressure [P2] rise above setting, and to modulate open when it drops below setting. Closing the solenoid causes the Valve to shut. The downstream Cock Valve [3] 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"	120	55	Y	P	FF	3W	1DS	X
	Other sizes available on request.								
	Oblique 1½" - 6"	Y	Threaded NPT (Female)	NP	9VDC -	Latch 9DS	3-Way Control	See complete Orderin Guide for additional attributes.	X
	Angle (3", 3"L, 4")	A	Grooved (2"-6")	NP	12VDC--	Latch 1DS			
	Dual (3")	Y	Plastic Flanges (3"-6")	FF					
	Tee (3" & 4")	T	PVC Slip (3")	T3					
			PVC Slip (4")	T4					



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