PRESSURE SUSTAINING VALVE

Model IR-230-2W-M

The BERMAD Pressure Sustaining Valve is a hydraulically operated, diaphragm actuated control valve that sustains minimum preset upstream (back) pressure. It either opens or shuts in response to a remote pressure command. When installed offline, the BERMAD Model IR-230-2W-M relieves line pressure in excess of preset pressure.
*This valve is designated for irrigation use only and not for other uses! Manufacturer warranty is limited to the permitted use only.

[1] BERMAD Model IR-230-2W-M protects pump from overload and cavitation, prevents main line emptying, and controls system fill-up.
[2] Filter Backwash Hydraulic Valve Model IR-350
[3] Combination Air Valve Model C10
[4] Vacuum Breaker

Features & Benefits

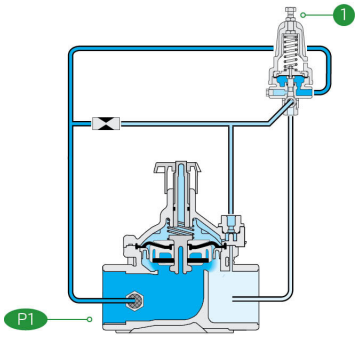
- Line Pressure Drive, Hydraulically Controlled
  - Sustains upstream line pressure, controlling system fill up
  - Relieves excessive pressure protecting pump and system
- Composite Hydro-Efficient Globe Valve
  - Unobstructed flow path
  - Single moving part
  - High flow capacity
  - Highly durable, chemical and cavitation resistant
- Unitized Flexible Diaphragm and Guided Plug
  - Excellent low flow regulation performances
  - Prevents diaphragm erosion and distortion
- Fully Supported & Balanced Diaphragm
  - Requires low actuation pressure
- User-Friendly Design
  - Simple in-line inspection and service

Typical Applications

- Automated Irrigation Systems
- Pressure Zone Prioritizing
- Greenhouses Irrigation
- Filter Stations
- Control of Fertilization Systems

Operation:

The Pressure Sustaining Pilot [1] commands the Valve to throttle closed should Upstream Pressure [P1] drop below pilot setting, and to modulate open when it rises above pilot setting.



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Technical Data

Pressure Rating:
10 bar

Operating Pressure Range:
0.7-10 bar

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NBR

Spring:
Stainless Steel

Control Loop Accessories

PS Pilot: PC-30-A-P

Pilot Spring Range:

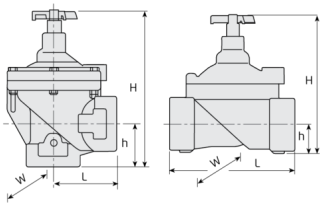
Spring	Spring Color	Setting range
N	Natural	0.8-6.5 bar
V	**Blue & White**	**1.0-10.0 bar**

Standard spring - marked in bold

Tubing and Fittings:
Polyethylene and Polypropylene

Technical Specifications

For other end connection types,
Please refer to BERMAD full engineering page.



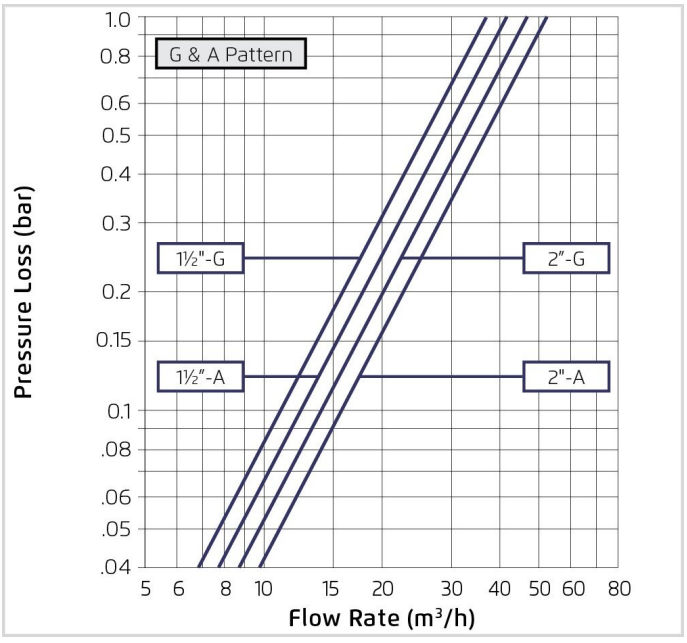
Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	W	CCDV (Lit)	KV
1½" ; DN40	Globe	Threaded	1	160	180	35	125	0.072	37
1½" ; DN40	Angle	Threaded	0.95	80	190	40	125	0.072	41
2" ; DN50	Globe	Threaded	1.1	170	190	38	125	0.072	47
2" ; DN50	Angle	Threaded	0.91	85	210	60	125	0.072	52

CCDV = Control Chamber Displacement Volume

Additional Features

Code	Description	Size Range
M	Flow Stem	1½"-2" / DN40-50
5	Plastic Test Point	1½"-2" / DN40-50

Flow Chart



2-Way circuit "Added Head Loss" (for "V" below 2 m/s): 0.3 bar

Differential Pressure & Flow Calculation

$$\Delta P = \left(\frac{Q}{Kv}\right)^2$$

Kv = m³/h @ ΔP of 1 bar
Q = m³/h
ΔP = bar