



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

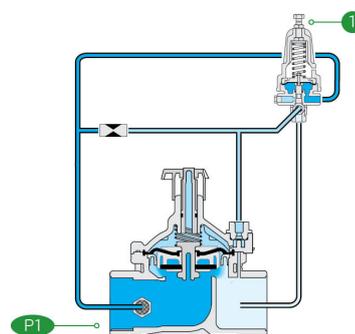
- Line Pressure Drive, Hydraulically Controlled
 - Sustains upstream line pressure, controlling system fill up
 - Relieves excessive pressure protecting pump and system
- Composite Hydro-Efficient Globe Valve
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
 - Highly durable, chemical 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.





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:

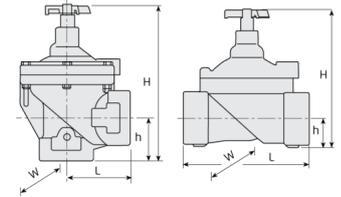
Spring	Spring Color	Setting range
N	Natural	0.8-6.5 bar
V	Blue & White	1.0-10.0 bar

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.



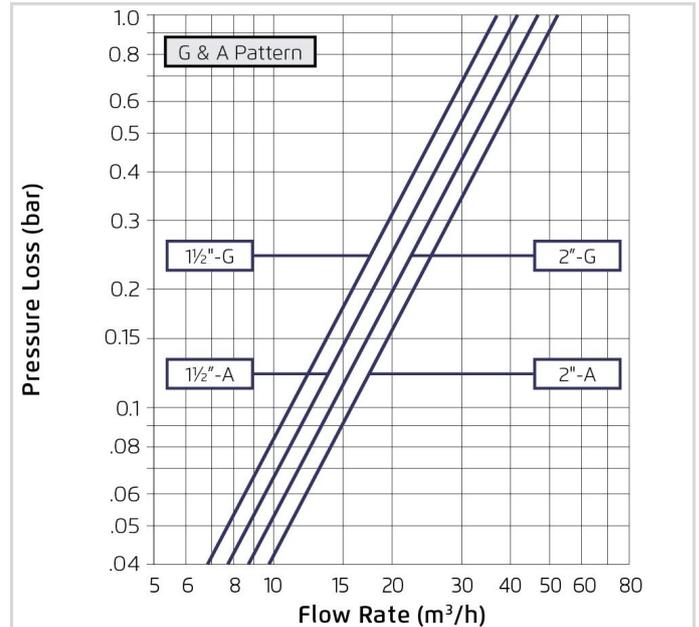
Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	W	CCDV (Lit)	KV
1½" ; DN40	Globe	Threaded	1	160	180	35	125	0.072	37
1½" ; DN40	Angle	Threaded	0.95	80	190	40	125	0.072	41
2" ; DN50	Globe	Threaded	1.1	170	190	38	125	0.072	47
2" ; DN50	Angle	Threaded	0.91	85	210	60	125	0.072	52

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

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

$Kv = m^3/h @ \Delta P \text{ of } 1 \text{ bar}$
 $Q = m^3/h$
 $\Delta P = \text{bar}$