PRESSURE RELIEF/ SUSTAINING VALVE

Model IR-230-2W

The BERMAD Pressure Relief/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 relieves line pressure in excess of preset pressure..

[1] BERMAD Model IR-230 protects pump from overload and cavitation, prevents main line emptying, and controls system fill-up

[2] BERMAD Plastic Back Wash Valve

[3] BERMAD Combination Air Valve Model IR-C10

[4] BERMAD Vacuum Breaker

Features & Benefits

- Line Pressure Driven, Hydraulically Controlled
  - Sustains upstream line pressure controlling system fill-up
  - Relieves excess pressure protecting pump & system
- Plastic Globe Hydro-Efficient 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 performance
  - Prevents diaphragm erosion and distortion
- Fully Supported & Balanced Diaphragm
  - Requires low actuation pressure
- User-Friendly Design
 - Simple in-line inspection and service

Typical Applications

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

All images in this catalog are for illustration only

Operation:

The Pressure Sustaining Pilot ❶ commands the Valve to throttle closed should Upstream Pressure (P1) drop below pilot setting, and to modulate open when it rises above pilot setting.
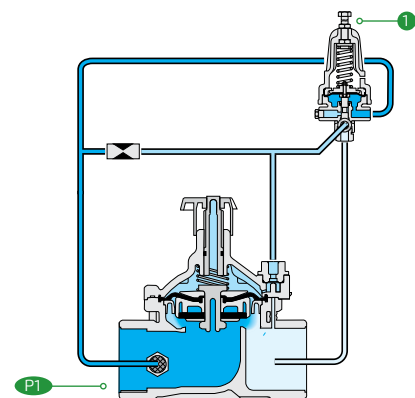
Technical Data

Sizes: 1½-2"; DN40-50
Patterns:
Globe: 1½-2"; DN40-50
Angle: 1½ & 2"; DN40 & 50
End Connections:
Female Threads BSP; NPT
Pressure Rating: 10 bar; 145 psi

Operating Pressure Range:
0.5-10 bar; 7-145 psi
Setting Range:
1-7 bar; 15-100 psi
Setting ranges vary according to specific pilot spring. Please consult factory.

Standard Materials:

Body & Cover:
Black PA6+33%GF
Diaphragm: NBR
Seals: NBR
Spring: Stainless Steel

Cover Bolts: Stainless Steel
Control Accessories: Plastic
Tubing and Fittings: Plastic

Technical Specifications

Dimensions and Weights
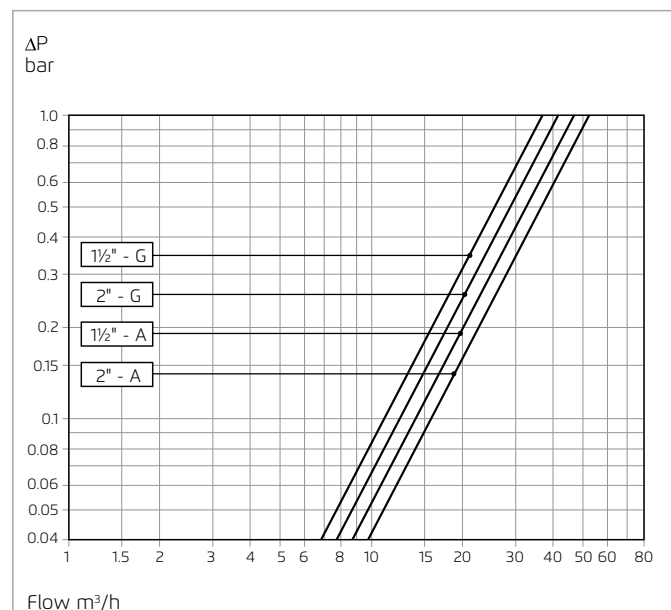
Sizes Inch ; DN	1½" ; 40		2" ; 50	
Pattern	Globe	Angle	Globe	Angle
L (mm)	160	80	170	85
H (mm)	180	190	190	210
W (mm)	35	40	38	60
h (mm)	125	125	125	125
Weight (kg)	1	0.95	1.1	0.91

C = Half of H
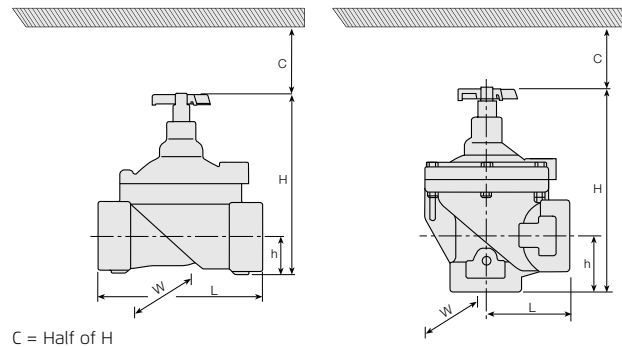
Flow Properties

Sizes	Inch DN	G	A	G	A
		1½" 40		2" 50	
KV		37	47	41	52

Valve flow coefficient, Kv or Cv

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

Where:

Kv = Valve flow coefficient

Cv = Valve flow coefficient
(flow in gpm at Diff. Press. 1 psi)

Q = Flow rate (m³/h; gpm)
P = Differential pressure (bar; psi)
Cv = 1.155 Kv

Flow Chart

ΔP bar

1½" - G
2" - G
1½" - A
2" - A

Flow m³/h