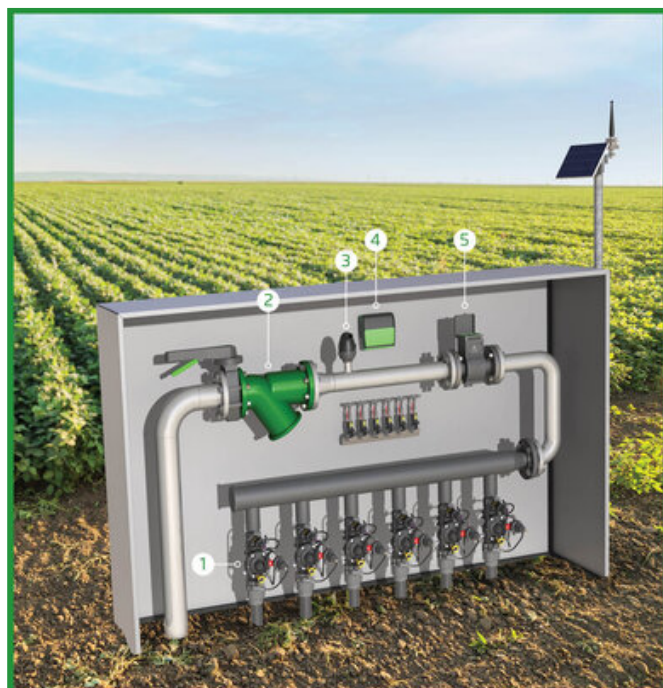
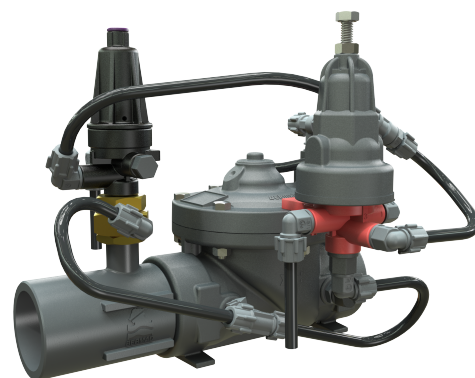


FLOW CONTROL & PRESSURE REDUCING VALVE

Model IR-272-50-3W-Xt

The BERMAD Flow Control and Pressure Reducing Valve is a hydraulically operated, diaphragm actuated control valve that limits system demand to the designed maximum allowed value; reduces downstream pressure to constant preset maximum and shut in respond to hydraulic pressurized command.

*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-272-50-3W-XZt limits over-demand, controls laterals and distribution line fill-up while reducing pressure.

[2] Strainer

[3] Combination Air Valve Model IR-C10

[4] Smart Irrigation Controller-OMEGA

[5] Electromagnetic Flow Meter Model M-10 (composite)

Features & Benefits

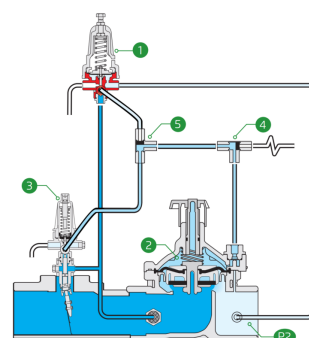
- Line Pressure Driven Hydraulic Flow Control
 - Limits fill-up rate and consumer excessive demand
 - Protects downstream systems
 - Adjustable paddle-type hydro-mechanic flow pilot with no added head loss
 - Easy flow and pressure setting with a wide setting range
- Smooth Valve Opening and Closing
 - Accurate and stable regulation
 - Low operating pressure requirements
- 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

- Line Fill-Up Control
- Pressure Reducing Systems
- Multiple Independent Consumer Systems
- Systems Subject to Varying Supply Pressure
- Mechanized Irrigation Systems
- Filter Stations

Operation:

The shuttle valve [5] hydraulically connects the Paddle flow pilot (PFP) [3] or the Pressure reducing pilot (PRP) [1] to the control chamber [2] through shuttle valve. The PFP commands the valve to throttled closed should demand rise above setting. The PRP command the valve to reduce downstream pressure to pilot setting. The shuttle valve [4] allows valve remote closing by introducing pressurized command to the control chamber, shutting the valve.





Technical Data

Pressure Rating:
150 psi

Operating Pressure Range:
10-150 psi

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NBR

Spring:
Stainless Steel

Control Loop Accessories

PR Pilot: PC-SHARP-X-P

FC Pilot: PC-70-X-P

Pilot Spring Range:

Spring	Spring Color	Setting range
J	Green	3-25 psi
K	Gray	7-43 psi
N	Natural	12-95 psi
V	Blue & White	15-150 psi

Standard spring - marked in bold

Tubing and Fittings:
Polyethylene and Polypropylene

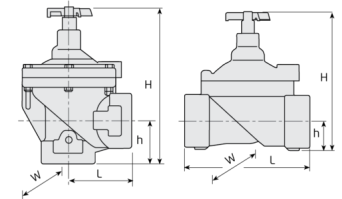
Flow Pilot spring range:
Spring: E-Purple

Flow Velocity (ft/sec): 5-11.5

**For other pilots and flow velocities range, please consult [BERMAD](http://BERMAD.com)*

Technical Specifications

For other end connection types,
Please refer to [BERMAD](http://BERMAD.com) full engineering page.



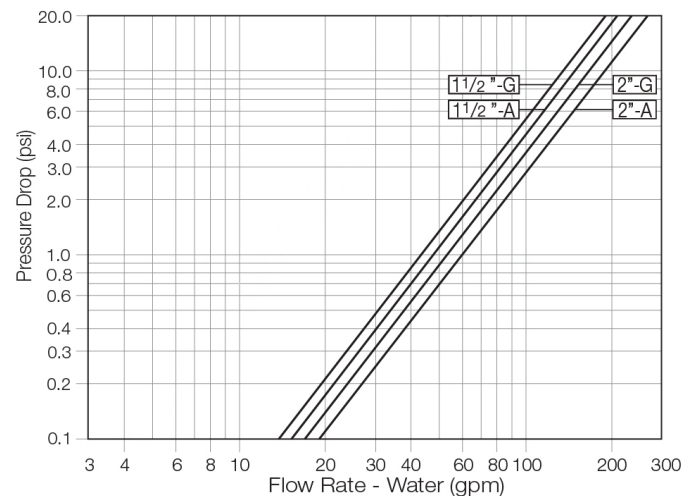
Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
1½" ; DN40	Globe	Threaded	2.2	6¾	7½	1¾	5	0.016	43
1½" ; DN40	Angle	Threaded	2.1	3¾	7½	1¾	5	0.016	47
2" ; DN50	Globe	Threaded	2.4	6¾	12¾	1½	5	0.016	54
2" ; DN50	Angle	Threaded	2	3¾	8¾	2¾	5	0.016	60

CCDV = Control Chamber Displacement Volume • **Threaded** = BSP & NPT are available. External thread is available for 2" and 2½" only. • Other End Connections are available on request. For dimensions and weights of adapters or valves with adapters please consult with customer service.

Additional Features

Code	Description	Size Range
M	Flow Stem	1½"-2"
5	Plastic Test Point	1½"-2"
Z	Manual Selector	1½"-2"

Flow Chart



Differential Pressure & Flow Calculation

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

Cv = gpm @ ΔP of 1 psi

Q = gpm

ΔP = psi