HYDRAULIC CONTROL BASIC VALVE

With Flow Stem

Model IR-205-M

The BERMAD Hydraulic Control Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts in response to a local or remote pressure command.
*This valve is designated for irrigation use only and not for other uses! Manufacturer warranty is limited to the permitted use only.


Features & Benefits

- Line Pressure Drive, Hydraulically Controlled
  - Hydraulically controlled On/Off
- 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
- Distribution Centers
- Systems Subject to Varying Supply Pressure
- Landscape

[1] BERMAD Model IR-205-M open upon local manual command
[2] Pressure Reducing Hydrometer Model IR-920-M0-KXZ
[3] Combination Air Valve Model IR-C10
[4] RTU-Remote Terminal Unit

Operation:

Hydraulic Command [1] is applied to the Control Chamber [2] through the Manual Selector [3] . This creates superior closing force that moves the Diaphragm Assembly [4] to a closed position. Discharging of pressure from the control chamber, by turning the manual selector, causes the line pressure acting on the lower side of the diaphragm assembly to move the valve to an open position.

All images in this catalog are for illustration only
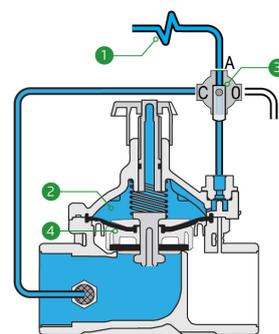
Technical Data

Pressure Rating:
150 psi

Operating Pressure Range:
10-150 psi

Materials

Body & Cover:
Polyamide 6 & 30% GF
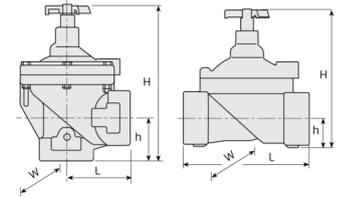
Diaphragm:
NBR

Spring:
Stainless Steel

Control Loop Accessories

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 (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
¾" ; DN20	Globe	Threaded	0.8	4⅜	4⅝	⅞	3⅛	0.003	10
1" ; DN25	Globe	Threaded	0.7	4⅜	4⅝	⅞	3⅛	0.003	10
1½" ; DN40	Globe	Threaded	2.2	6⅜	7⅛	1⅜	5	0.016	43
1½" ; DN40	Angle	Threaded	2.1	3⅛	7½	1⅝	5	0.016	47
2" ; DN50	Globe	Threaded	2.4	6¾	12¾	1½	5	0.016	54
2" ; DN50	Angle	Threaded	2	3⅜	8¼	2⅜	5	0.016	60

CCDV = Control Chamber Displacement Volume

Additional Features

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

Flow Chart
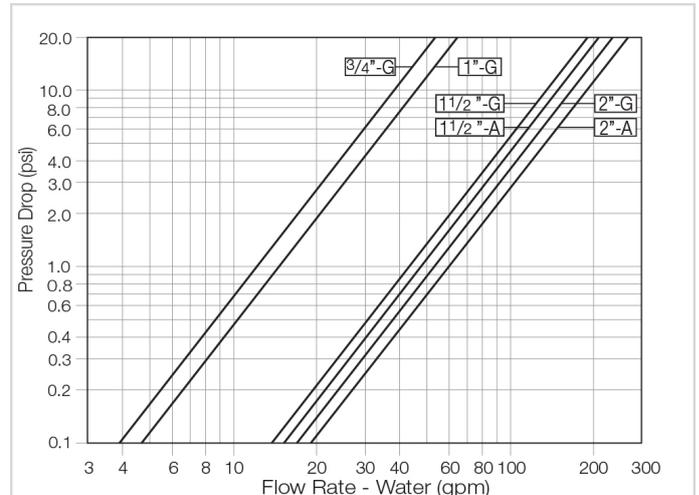
2-Way circuit "Added Head Loss" (for "V" below 6.5 f/s): 4.5 psi

Differential Pressure & Flow Calculation

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

Cv = gpm @ ΔP of 1 psi
Q = gpm
ΔP = psi