



GREENAPP CONTROLLED VALVE

Model IR-11T-4G-2W

The BERMAD 2-Way Solenoid Controlled Valve with integrated Trio manual selector, is a hydraulically operated, diaphragm actuated control valve with internal hydraulic Feed & Bleed control loop. The Trio selector enables automated electric operation or manually opening/closing override of the electric signal. The BERMAD GreenApp™ is a smart, flexible, easy to use, Bluetooth single station irrigation controller with an integral solenoid that execute scheduled and manual irrigation programs, managed by a free, user-friendly, mobile app (Android and iOS) from your smart-phone or tablet.



[1] BERMAD Model IR-11T-4G-2W opens & closed upon to electric command.

Features & Benefits

- Hydraulic Control Valve
 - Line pressure driven
 - Hydraulically controlled On/Off
- Engineered Composite Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection
 - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity at low pressure loss
- Unitized "Flexible Super Travel" (FST) Diaphragm and Guided Plug
 - Accurate and stable regulation with smooth closing
 - Requires low actuation pressure
 - Prevents diaphragm erosion and distortion
 - Simple in-line inspection and service

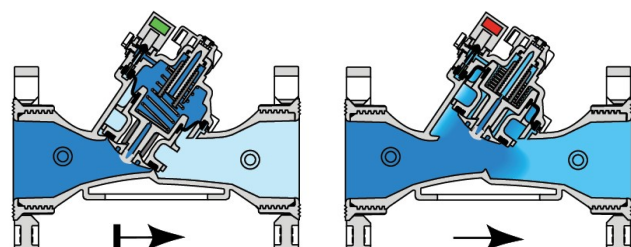
Typical Applications

- Automated Irrigation Systems
- Greenhouses Irrigation
- Low Supplied Pressure Irrigation Systems
- Energy Saving Irrigation Systems
- Landscape - Municipal & Domestic
- Turf-Golf Courses & Stadiums

Operation:

Closed Position: The internal restriction continuously allows line pressure into the control chamber. The solenoid controls outflow from the control chamber. When the solenoid is closed it causes pressure to accumulate in the control chamber, thereby forcing the valve to close.

Open Position: Opening the solenoid releases more flow from the control chamber than the restriction can allow in. This causes the accumulated pressure in the control chamber to drop, enabling the line pressure acting on the plug to open the valve.





Technical Data

Pressure Rating:
10 bar

Operating Pressure Range:
0.5-10 bar

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NR, Nylon fabric reinforced

Spring:
Stainless Steel

Control Loop Accessories

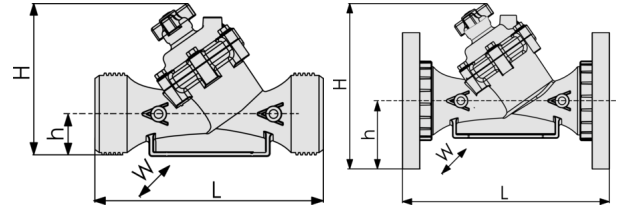
Tubing and Fittings:
Polyethylene and
Polypropylene

**For other solenoids please
consult BERMAD*

DC solenoid:
GreenApp 2-Way

Technical Specifications

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



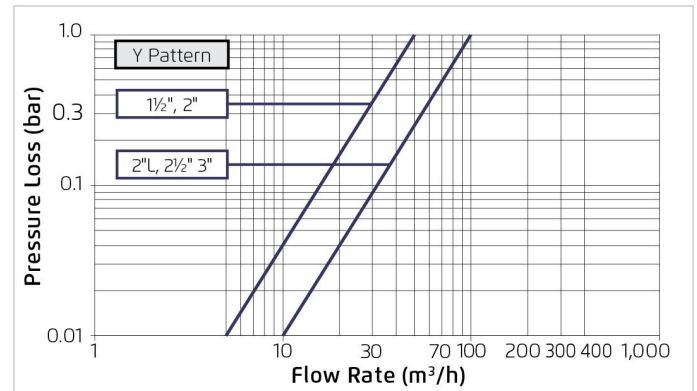
Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	w	CCDV (Lit)	KV
1½" ; DN40	Oblique	Threaded	1.1	200	173	40	97	0.12	50
2" ; DN50	Oblique	Threaded	1.2	230	173	40	97	0.12	50
2"L ; DN50L	Oblique	Threaded	1.5	230	187	43	135	0.15	100
2½" ; DN65	Oblique	Threaded	1.5	230	187	43	135	0.15	100
3" ; DN80	Oblique	Threaded	1.6	298	199	55	135	0.15	100
3" ; DN80	Oblique	Metal Flanges	4.4	308	244	100	200	0.15	100
3" ; DN80	Oblique	Plastic Flanges	2.5	308	244	100	200	0.15	100

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.

Optional Features

Code	Description
M	Flow Stem
5	Plastic Test Point
V3	Victaulic PVC Adaptors 3"
V4	Victaulic PVC Adaptors 4"

Flow Chart



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

Differential Pressure & Flow Calculation

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

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