



GREENAPP CONTROLLED VALVE

Model IR-21T-GreenApp-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.

*This valve is designated for irrigation use only and not for other uses! Manufacturer warranty is limited to the permitted use only.



[1] The BERMAD Model IR-21T-GreenApp-2W opens and closes drip-tight in response to an electric signal, which causes the solenoid to open or close the valve's internal hydraulic loop.

Features & Benefits

- Line Pressure Driven, Hydraulically Controlled On/Off
- Smooth Valve Opening and Closing
 - Accurate and stable regulation
 - Low operating pressure requirements
- Composite Hydro-Efficient Globe Valve
 - Unobstructed flow path
 - Single moving part
 - Highly durable, chemical and cavitation resistant
- Unitized Flexible Diaphragm and Guided Plug
 - Prevents diaphragm erosion and distortion
- Fully Supported & Balanced Diaphragm
 - Requires low actuation pressure
- User-Friendly Design
 - Simple in-line inspection and service

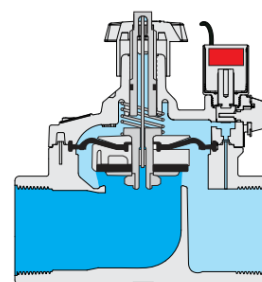
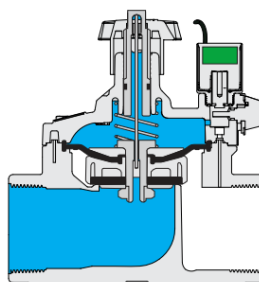
Typical Applications

- Automated Irrigation Systems
- Drip Systems
- Landscape

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:

0.7-10 bar

Materials

Body & Cover:

Polyamide 6 & 30% GF

Diaphragm:

NBR

Spring:

Stainless Steel

Control Loop Accessories

Tubing and Fittings:

Polyethylene and Polypropylene

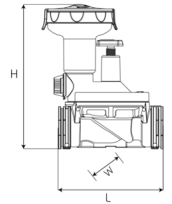
DC solenoid:

GreenApp 2-Way

Technical Specifications

For other end connection types,

Please refer to [BERMAD](#) full engineering page.



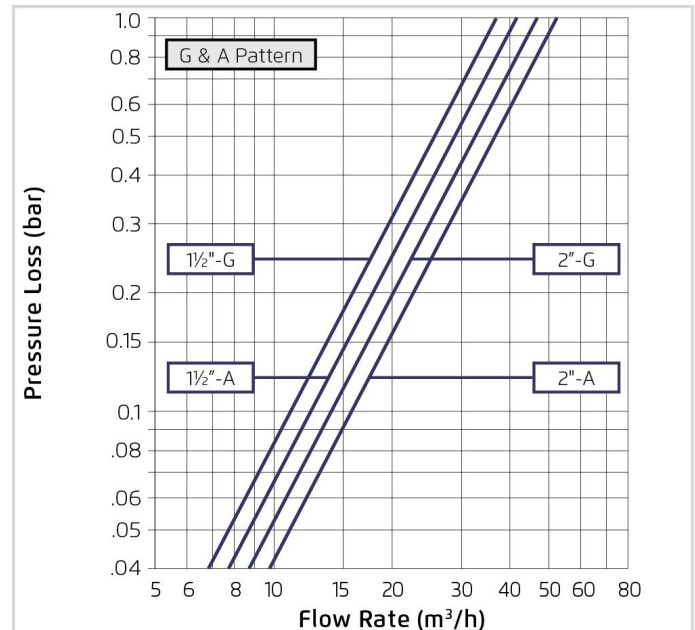
Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	W	CCDV (Lit)	KV
¾" ; DN20	Globe	Threaded	0.35	110	150	22	78	0.015	9
1" ; DN25	Globe	Threaded	0.33	110	150	22	78	0.015	9
1½" ; DN40	Globe	Threaded	1	160	194	35	125	0.072	37
2" ; DN50	Globe	Threaded	1.1	170	200	38	125	0.072	47

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
Z	Manual Selector	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

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

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