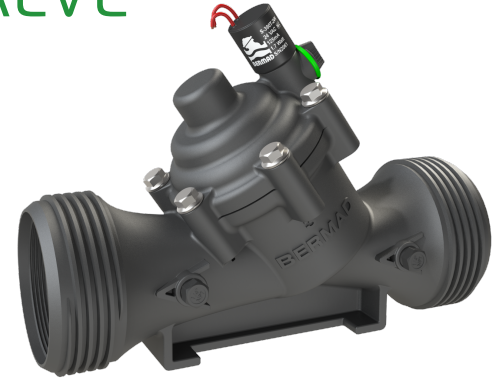




# SOLENOID CONTROLLED VALVE

## Model IR-11T-N1-2W

The BERMAD 2-Way Solenoid Controlled Valve is a hydraulically operated, diaphragm actuated control valve with internal hydraulic Feed & Bleed control loop. The BERMAD Model IR-11T-N1-2W 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.



[1] BERMAD Model IR-11T-N1-2W opens & closed upon to electric command  
[2] Combination Air Valve Model IR-C10

### 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

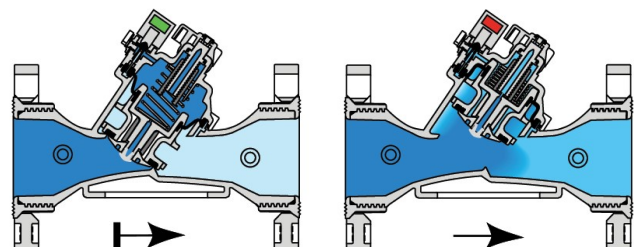
### Typical Applications

- 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.





IR-11T-N1-2W

### Technical Data

**Pressure Rating:**  
150 psi

**Operating Pressure Range:**  
7-150 psi

#### 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](http://BERMAD)*

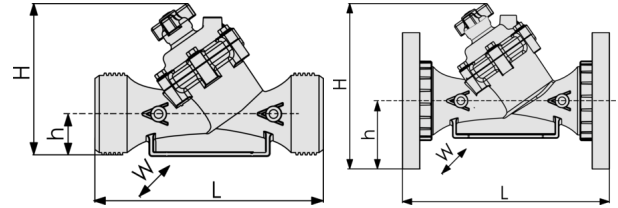
**AC solenoid:**  
S-390-T-2W

**DC solenoid:**  
S-390-T-2W

**DC latch solenoid:**  
S-392-T-2W

### Technical Specifications

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



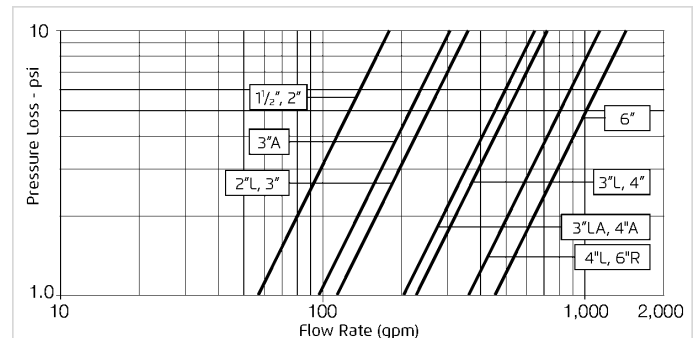
Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	w	CCDV (Gal)	CV
1½" ; DN40	Oblique	Threaded	2.4	7%	6%	1%	3%	0.026	58
2" ; DN50	Oblique	Threaded	2.7	9%	6%	1%	3%	0.026	58
2"L ; DN50L	Oblique	Threaded	3	9%	7%	1%	5%	0.033	116
2½" ; DN65	Oblique	Threaded	3	9%	7%	1%	5%	0.033	116
3" ; DN80	Oblique	Threaded	4	11%	7%	2%	5%	0.033	116
3" ; DN80	Oblique	Plastic Flanges	6	12%	9%	4	7%	0.033	116
3" ; DN80	Oblique	Metal Flanges	10	12%	9%	4	7%	0.033	116

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	Size Range
M	Flow Stem	2½"-3"
V3	Victaulic PVC Adaptors 3"	3"
V4	Victaulic PVC Adaptors 4"	4"

### 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