



# SOLENOID CONTROL VALVE

WITH 2-WAY INTERNAL CONTROLS AND TRIO  
INTEGRATED OPEN-AUTO-CLOSE MANUAL SELECTOR

## 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 opens & closed upon to electric command  
[2] Combination Air Valve

### Features and Benefits

- Hydraulic Control Valve
  - Line Pressure Driven
  - Hydraulically controlled On/Off
- Engineered Plastic Valve with Industrial Grade Design
  - Adaptable on-site to a wide range of end connection sizes and types
  - Highly durable, chemical & cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
  - Ultra-high flow capacity at Low pressure loss
- Unitized Flexible Super Travel Diaphragm with a Guided Plug
  - Accurate and stable regulation with smooth closing
  - Requires low actuation pressure
  - Prevents diaphragm erosion and distortion
  - Simple In-Line Inspection and Service

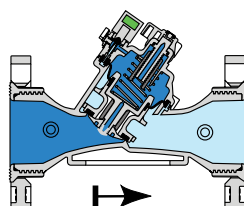
### Typical Applications

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

### Operation:

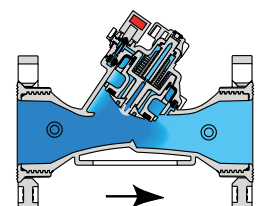
#### Closed Position

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:**  
10 bar; 145 psi

**Operating Pressure Range:**  
0.5-10 bar; 7-145 psi

### Materials:

**Body, Cover and Plug:**  
Polyamid 6 & 30% GF

**Diaphragm:**  
NR, Nylon fabric reinforced

**Seals:** NR

**Spring:** Stainless Steel

**Cover Bolts:** Stainless Steel

### Control Accessories:

**Solenoid Voltage Range:**

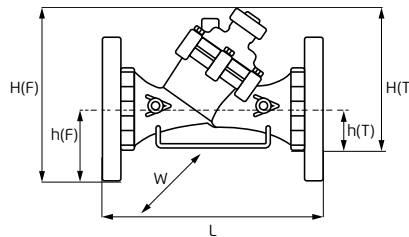
S390-T; 24VAC & 24VDC

S392-T; 9VDC Pulse Solenoid

### Technical Specifications

#### Y Pattern Valves Dimensions & Weights

For [BERMAD](#) angle, dual & T pattern,  
Please see our full engineering page.



Sizes Inch ; DN	2" L ; 50		2½" ; 65		3" ; 80	
	Rc (BSPT), NPT	G (BSP.F)	Rc (BSPT), NPT	Universal Flanges		
End Connections				Metal	Plastic	
L (mm)	230	230	298	308	308	
H (F) (mm)	—	—	—	244	244	
H (T) (mm)	187	187	199	—	—	
h (F) (mm)	—	—	—	100	100	
h (T) (mm)	43	43	55	—	—	
W (mm)	135	135	135	200	200	
CCDV (lit)	0.15	0.15	0.15	0.15	0.15	
Weight (kg)	1.47	1.47	1.6	4.4	2.5	

**CCDV** = Control Chamber Displacement Volume • **BSPT** = Internal Threaded • **BSP.F** = External Threaded

• Other End Connections are available on request. For dimensions and weights of adaptors or valve with adaptors please consult with customer service

### Flow Properties

Sizes	Inch DN	2" L 50L	2½" 65	3" 80
<b>KV</b>		100	100	100

### Valve Flow Coefficient

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

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

### Flow Chart

