



# DRY MAGNETIC LATCH SOLENOID PILOT VALVE

# Model S-982-3W M.B.

The BERMAD S-982-3W is a compact 3-Way Latching Solenoid Pilot Valve, comprised of two main components: a dry solenoid actuator and a 3-way hydraulic pilot valve. The actuator is neutralized from water damages by an isolating membrane, which hermetically isolates it from the water. The Model S-982-3W consumes power only when switching positions, using a very short electric impulse. This prolongs life of batteries and enables solar recharging. The hydraulic base features a manual override and consists of a bracket for attaching to the valve or to a solenoid manifold.





### Features & Benefits

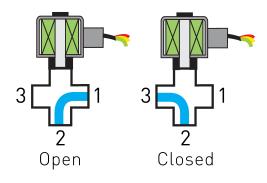
- Advanced Construction Materials, Unique Plastic Casing
  - Proven pressure, voltage and weather resistance
  - Highly durable in corrosive environments
  - Protection Class IP68; NEMA Type 6D, which applies to a maximum duration of 7 days and to a maximum depth of 5 meters of submersion
- Dry Actuator and Superb Finish
  - Reliable operation under dirt loaded water
  - Suitable to turbid, muddy and/or corrosive water
- Short Electrical Pulse Latch Activation
  - Extremely low power consumption
  - Low voltage battery operation
  - Saves wires and infrastructures costs
  - Suites most Battery Operated Controllers on the market
- Hydraulic Base with Installation Bracket
  - High flow capacity quickens valve response
  - Manual override Open and Close
  - Simple installation to valve or manifold
- Reliable and Durable Product that Bears the Stamp of **BERMAD Quality**

# **Typical Applications**

- Systems distanced from control center
- Systems irrigated with turbid or corrosive water
- Unavailable Power Supply Locations
- Solenoid controlled on/off valves
- Solenoid controlled pressure and flow control valves
- Multiple valve systems
- Solenoid manifolds in irrigation heads

# Operation:

- In order to save power, the controller gives an "Open" or "Close" pulse command to the solenoid, which in turn, changes its plunger position.
- To "open" the solenoid, electro-magnetic power push the plunger up and a magnet on the top of the solenoid, hold it in open position.
- To "close" the solenoid, electro-magnetic power, with the help of a spring, push the plunger down.



BERMAD | Irrigation S-982-3W M.B.



### **Specifications:**

Pressure Rating: 0-250 bar

**Leads:** 2 leads x 0.000496 lnch<sup>2</sup> x 33.5 lnch

**Base Flow Factor:** Pressure port: Cv = 0.14 GPM @1 psi  $\Delta P$ ;

Exhaust port:  $Cv = 0.16 \text{ GPM} \odot 1 \text{ psi } \Delta P$ 

Height (H): 3.5 Inch Weight: 0.4 lbs

#### Materials:

**Actuator Casing:** Nylon

Seals: NBR

Wetted Parts: Nylon

Base: Brass

# **Electrical Data**

Voltage Range: 12-50 VDC Coil Resistance: 4.2 Ω Pulse Width: 20-100 mSec Required Capacitor: 4700 µF

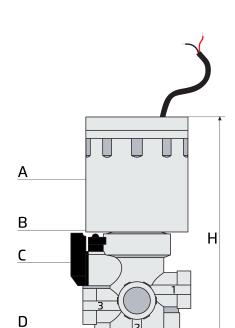
#### Operation Modes (electrical connections):

+ Red & - Black: Solenoid vents + Black & - Red: Solenoid pressurizes

Cable is black PVC sheathed

Note: To ensure compatibility of solenoid with your system, please contact

BERMAD's local representative.



| Port | Size     | Connections           |
|------|----------|-----------------------|
| 1    | 1/8" NPT | Vent                  |
| 2    | 1/8" NPT | Valve Control Chamber |
| 3    | 1/8" NPT | Pressure              |

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| Part | Description            |  |
|------|------------------------|--|
| Α    | Actuator               |  |
| В    | Isolating Membrane     |  |
| C    | Manual Override Handle |  |
| D    | Hydraulic Base         |  |
| E    | Bracket                |  |

