



# MAGNETIC LATCH SOLENOID PILOT VALVE

## Model S-392-T-3W

The BERMAD Model S-392T-3W is a compact 3-Way Latching Solenoid pilot valve comprised of two main components: a solenoid and a 3-way hydraulic pilot valve. The BERMAD latching solenoid can control valves independently or in combination with other control circuit accessories. Model S-392T-3W consumes power only when switching positions, using a very short electric pulse. This prolongs life of batteries and enables solar recharging. The hydraulic base features a three position TRIO manual override and includes 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 – max 3m depth, 7 days submersion
- Superb Internal Design and Finish
  - Reliable operation under dirt loaded water
- Short Electrical Pulse Latch Activation
  - Extremely low power consumption
  - Low voltage battery operation
  - Saves wires and infrastructures costs
  - No coil heating
  - Suits most Battery Operated Controllers on the market
  - Applicable in solar activated systems
- Hydraulic Base with Installation Bracket
  - High flow capacity quickens valve response
  - No dirt sedimentation inside solenoid actuator
  - 3 position TRIO manual override (Open, Auto and Close)
  - Simple installation to valve or manifold
- Reliable and Durable Product that Bears the Stamp of BERMAD Quality

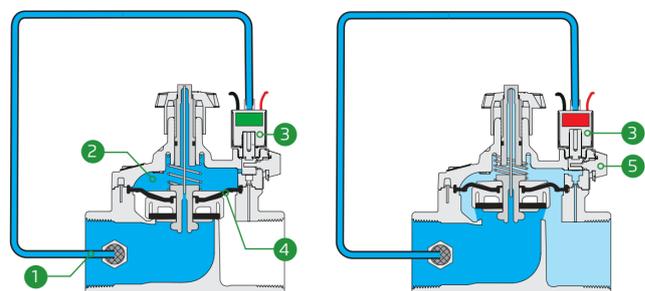
### Typical Applications

- Systems distanced from control center
- Unavailable Power Supply Locations
- Solenoid controlled on/off valves
- Solenoid controlled pressure and flow control valves
- Multiple valve systems
- Solenoid manifolds in irrigation heads
- Distribution Centers
- Energy Saving Irrigation Systems

### Operation:

**Closed Position:** Energizing the Solenoid to open, introduces line pressure to the Control chamber. This creates superior closing force that moves the diaphragm assembly to a closed position.

**Open Position:** The De-Energized Normally Closed solenoid vents the control chamber, allowing the upstream pressure applied on the diaphragm to open the valve.





### Technical Data

**Specifications:**

- Pressure Rating:** 0-10 bar
- Max. Temperature:** Water 70°C, Ambient 60°C
- Solenoid to Base Connection:** ¾"; 20 UNEF Male Threaded
- Leads:** 2 leads x 0.32 mm<sup>2</sup> x 80 cm
- Base Orifice Diameter:** 1.8 mm
- Actuator Orifice Diameter:** 1.6 mm
- Base Flow Factor:** Kv = 0.08 m<sup>3</sup>/h @ 1 bar ΔP
- Length (L):** 40 mm
- Height (H):** 92 mm
- Width (W):** 42 mm

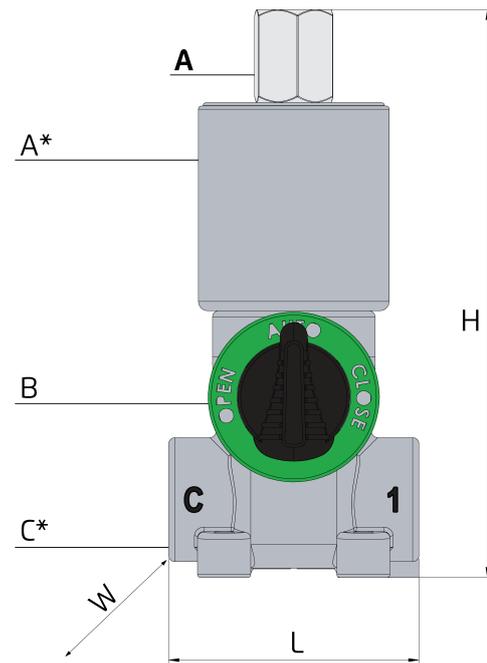
**Materials:**

- Actuator Casing:** Nylon
- Seals:** NBR
- Wetted Parts:** Stainless Steel
- Base:** Nylon

### Electrical Data

- Voltage Range:** 9-20 VDC
- Coil Resistance:** 6 Ω
- Coil Inductance:** 15/18 mH (off/on)
- Pulse Width:** 20-100 mSec
- Operation Modes (electrical connections):**
  - +Red & - Black: Solenoid vents
  - +Black & - Red: Solenoid pressurizes

*Note: To ensure compatibility of solenoid with your system, please contact BERMAD's local representative.*



Port	Size	Connections
1	¼" NPT	Vent
C	¼" NPT	Valve Control Chamber
A	⅜" NPT	Actuator Port (Pressure)

Part	Description
A*	Actuator
B	Manual Override Handle
C*	Hydraulic Base Trio