2-WAY SOLENOID ACTUATOR FOR TRIO

Model S-390-T-2W

The BERMAD S-390T-2W is a compact 2-way normally closed solenoid actuator, specially designed for reliable long-life service in irrigation systems controlled by continuous current controllers. The S-390T-2W solenoid actuator is applicable directly to the Trio valve cover or to a Trio base that can connect to variety of 2-way control circuits. It is compliant with all continuous current output irrigation controllers on the market and excels in its low power demand and low sensitivity to dirt and voltage variations.

Features & Benefits

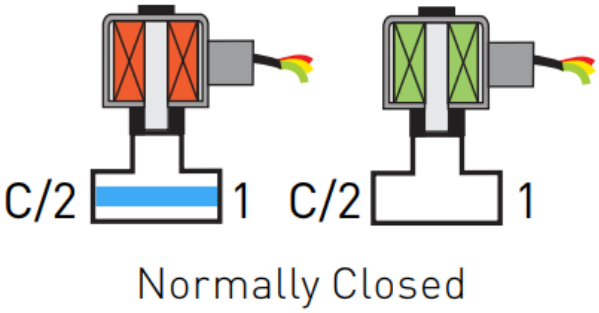
- Advanced Construction Materials, Unique Plastic Casing
  - Proven pressure, voltage and weather resistance
  - Highly durable in corrosive environments
  - High mechanical strength
  - Protection Class: IP68 – max 3m depth, 7 days submersion
- Superb Internal Design and Finish
  - Reliable operation under dirt loaded water
  - Low sensitivity to voltage variations
- Low Power Consumption
  - Low coil heating and sediment damage
  - Saves wires and infrastructures costs
  - Suites all Continuous Current Controllers on the market
- Simple Installation, Operation and Maintenance
- Robust "Trio" 3-position manual override handle, Close, Open & Automatic modes
- Reliable and Durable Product that Bears the Stamp of BERMAD Quality

Typical Applications

- Solenoid controlled on/off valves
- Solenoid controlled pressure and flow control valves
- Multiple valve systems
- Systems distanced from control center

Operation:

2-way, normally close solenoid & valve: Setting TRIO dial to AUTO enables solenoid control of the valve. When solenoid is deactivated (de-energized), its plunger is pushed out of the coil by a spring, sealing water vent which pressurizes valve's control chamber, closing the valve. Activating the solenoid pulls the plunger in, venting water from the control chamber and valve openes. Switching TRIO dial to Open will open the valve and to Close will shut it, overriding the solenoid control.

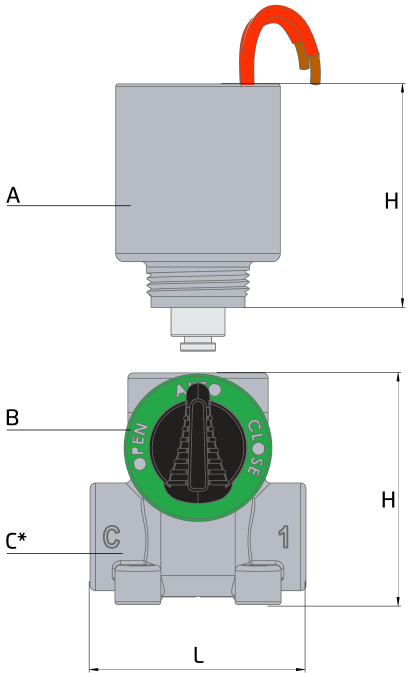


All images in this catalog are for illustration only

Technical Data

Specifications:
Pressure Rating: 0-10 bar
Max. Temperature: 80˚c
Solenoid to Base Connection: ¾"; 20 UNEF Male Threaded
Leads: 2 leads x 0.32 mm² x 80 cm
Base Orifice Diameter: 1.8 mm
Base Flow Factor: Kv = 0.10 m³/h @ 1 bar ΔP
Length (L): 40 mm
Height (H): 43 mm

Materials:
Actuator Casing: Nylon
Seals: NBR
Wetted Parts: Stainless steel and polyamide
Base: Nylon



Electrical Data

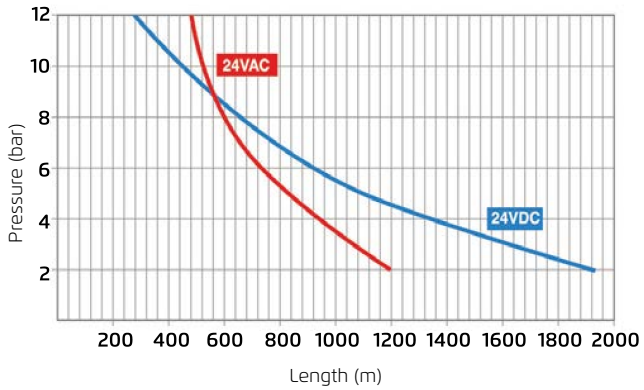
Actuator Type	Cable Color	Power (Watt)	Current (Amp)		Coil Resistance ohm@20°C
			Inrush	Hold	
S-390-T-2W-24VAC-R	Red/Red	1.7	0.25	0.125	36
S-390-T-2W-24VAC-D	Red/Orange	2.2	0.13	0.13	-
S-390-T-2W-24 V DC	Black/Black	4.2	0.18	0.18	156

Port	Size	Connections
1	¼" NPT	Outlet
C	¼" NPT	Inlet

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

Cable Length Data

Maximum cable length according to coil type:
Cable cross section: 0.5 mm²
Orifice size: 2 mm
Air gap: 0.7 mm



For cables longer than shown in diagram

(S-390-T-24VAC-D & S-390-T-24VDC only):

In order to calculate the cross section of

a length other than shown in the diagram,

use the following equation:

$$S = \frac{L\ (SOL)}{L\ (diagram)} \times 0.5$$

S = Minimum conductor cross-section in mm²
L (sol) = Distance between controller to solenid
L (diagram) = Length of cable shown in this diagram