

# ZCS1-120

## WATER RESISTANT SOLENOID

### FEATURES

- Water resistant
- Capable of handling low and high current requirements
- Versatile mounting and termination



### ORDERING INFORMATION

**ZCS1-120**   **A**   **1**   **DC6V**   **C**   **1**   **1**   **1**  
1   2   3   4   5   6   7   8

1. **Part number:** ZCS1-120

2. **Contact arrangement:** A: 1A (SPNO)

3. **Coil termination** (15in - lb torque spec.)

1. Isolated w/#10-32 terminal (0.22 min. length)
- 2: Grounded w/#10-32 terminal (0.22 min. length)
- 3: Isolated w/1/4" Q.C terminal
- 4: Grounded w/1/4" Q.C terminal
- 6: Grounded w/#8-32 tapered terminal
- 7: iSOLATED w/#10-32 terminal (0.45 min. length)
- 8: Grounded w/#10-32 terminal (0.45 min. length)

4. **Coil Voltage:** 6,12,14,15, 24, 36, 48

5. **Coil Type:**

- C: Continuous  
I: Intermittent

6. **Contact Material and termination (55 in-lb torque spec.):**

- 1: AgCdO with 5/16" -24 terminal (0.38" min. length)
- 3: Cu with 5/16" -24 terminal (0.38" min. length)
- 4: Cu with 1/4" -20 terminal (0.50" min length)
- 5: AgCdO with 5/16" -24 terminal (0.50" min. length)

7. **Mounting Bracket:** 1: Standard

- 2: "L" shaped bracket

8. **Factory Assigned Special's:** (where undefined contact factory)

- 1: Without hardware
- 2: Extra hardware loosely mounted to solenoid
- 5: Zinc plated mounting bracket
- 7: No hardware, zinc plated mounting bracket

### COIL PARAMETERS

- Termination; #8 -32 UNC 2A, #10-32 UNF-2A thread or 1/4" quick connect
- Connections:
  1. Coil isolated (two terminals)
  2. One coil lead grounded to bracket (one terminal)
- Coil data:

Coil Voltage (VDC)		Coil Resistance (ohm)		Must-Operate Voltage (VDC)		Coil Power (W)	
Rated	Max	Int.	Cont.	Int.	Cont.	Int.	Cont.
6	6.6	*	4.0	*	4.5	24.0	9.0
12	13.2	6.0	16.0	8.04	9.0		
14	15.4	*	26.0	*	10.5		
15	16.5	9.4	23.0	10.05	11.3		
24	26.4	24.0	64.0	16.08	18.0		
36	39.6	54.0	160.0	24.12	27.0		
48	52.8	*	256.0	*	26.0		

\*Special coils available upon request

### CONTACT DATA

- Contact Arrangement: 1A (SPNO)
- Contact Material: AgCdO, or Copper
- Termination; 5/16" -24 UNF-2A thread or 1/4" -20 UNC-2A thread

Load Voltage (VDC)	Ratings			
	Cont. (A)	In-rush (A)	Elec. Life	Contact Material
12	80	400	10000*	Copper
12	100	400	50,000*	AgCdO
36	100	400	25,000*	AgCdO

\*Number of operations



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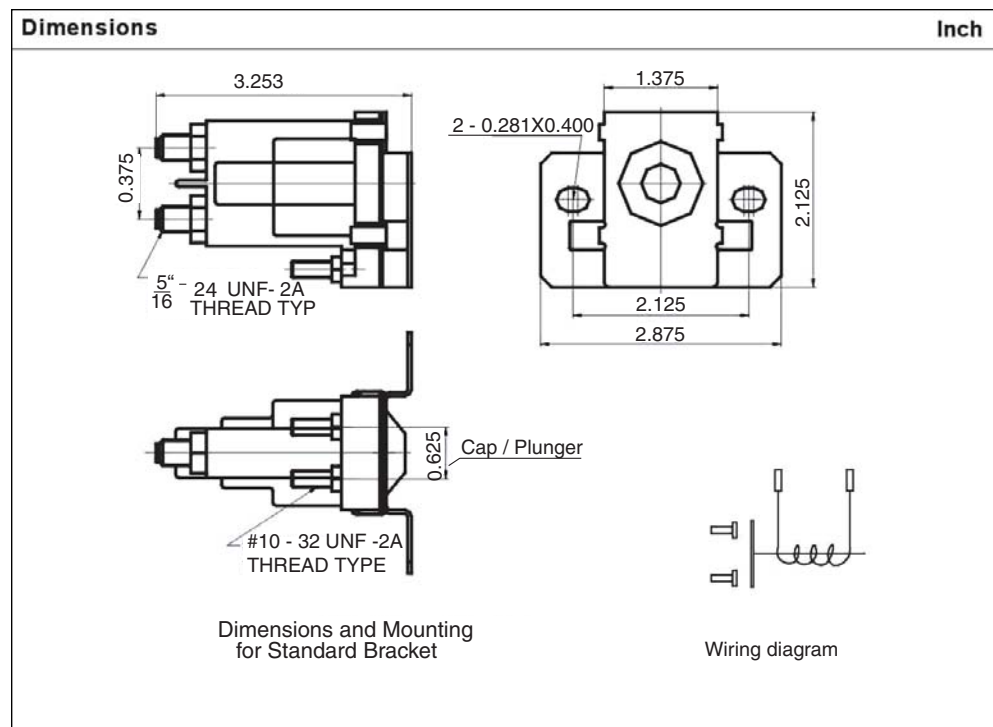
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## GENERAL DATA

Dielectric Strength	500 Volts
Temperature Range	-20°F~150°F (-28.9°C~65.6°C) - Intermittent -20°F~120°F (-28.9°C~48.9°C) - Continuous
Mechanical Life (no load)	250,000 cycles
Mounting position (Recommended)	Plunger vertical with cap down
Duty Cycle	Continuous; Intermittent: 10sec "on" maximum and minimum 60sec "off", 60sec "on" max and minimum 6min "off."
Hardward Torque specification	44-55 in*lbs (Contact terminal); 12-18 in*lbs (Coil terminal)
Weight	170.5 grams

## MECHANICAL DATA



### APPLICATION NOTES:

- 1.) Not all number combinations are available. Please contact your Sales Representative for available part numbers.
- 2.) Solenoid applied in battery charging circuits should be protected from higher than rated voltage during charging. The service life may be affected by this condition and the solenoid may or may not operate the circuit as intended.
- 3.) Circuits should be designed to provide safe operation should the solenoid fail in either the open or closed position.
- 4.) A back-up wrench must be used to hold the bottom nut stationary during installation.



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