

# AZ9801

## 70 AMP SUPER-ISO AUTOMOTIVE RELAY

### FEATURES

- 70 Amp contact rating – “Super ISO”
- High momentary carry current (500 A)
- High operating temperature (125°C)
- SPST (1 Form A)
- Quick connect terminals
- ISO/TS 16949, ISO9001, ISO14000
- Tested in accordance with SAE J2544
- Epoxy sealed version available



### CONTACTS

|                    |   |
|--------------------|---|
| <b>Arrangement</b> | SPST (1 Form A)   |
| <b>Ratings</b>     | Resistive load:<br>Max. switched power: 980 W<br>Max. switched current: 70 A<br>Max. switched voltage: 50 VDC |
| <b>Material</b>    | Silver tin oxide  |
| <b>Resistance</b>  | < 50 milliohms initially<br>(24 V, 1 A voltage drop method)   |

### COIL

|                             |                                      |
|-----------------------------|--------------------------------------|
| <b>Power</b>                |                                      |
| At Pickup Voltage (typical) | 0.68 W                               |
| Max. Continuous Dissipation | 4.0 W at 20°C (68°F)                 |
| Temperature Rise            | 56°C (101°F) at nominal coil voltage |
| <b>Temperature</b>          | Max. 155°C (311°F)                   |

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than “Must Operate” value.
3. Specifications subject to change without notice.

### GENERAL DATA

|  |  |
|--|--|
| <b>Life Expectancy</b><br>Mechanical<br>Electrical   | Minimum operations<br>1 x 10 <sup>7</sup><br>1 x 10 <sup>5</sup> at 70 A 14 VDC Res.   |
| <b>Operate Time (typical)</b>                        | 10 ms at nominal coil voltage  |
| <b>Release Time (typical)</b>                        | 7 ms at nominal coil voltage<br>(with no coil suppression)   |
| <b>Dielectric Strength (at sea level for 1 min.)</b> | 500 Vrms coil to contact<br>500 Vrms contact to contact  |
| <b>Insulation Resistance</b>                         | 100 megohms min. at 500 VDC, 20°C<br>50% RH  |
| <b>Dropout</b>                                       | Greater than 10% of nominal coil voltage   |
| <b>Ambient Temperature</b><br>Operating<br>Storage   | -40°C (-40°F) to 125°C (257°F)<br>-40°C (-40°F) to 155°C (311°F)   |
| <b>Vibration</b>                                     | 18g 10-500 Hz  |
| <b>Shock</b>   | 30 g   |
| <b>Enclosure</b>                                     | P.B.T. polyester   |
| <b>Terminals</b>                                     | Copper alloy<br>Quick Connect<br>Note: Allow suitable slack on leads when wiring,<br>and do not subject the terminals to excessive<br>force. |
| <b>Weight</b>  | 40 grams   |



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

# AZ9801

## RELAY ORDERING DATA

| COIL SPECIFICATIONS – STANDARD      |                  |                     |                       |                |
|-------------------------------------|------------------|---------------------|-----------------------|----------------|
| Nominal Coil VDC                    | Must Operate VDC | Max. Continuous VDC | Coil Resistance ± 10% | ORDER NUMBER*  |
| 6                                   | 3.2              | 9                   | 22.5                  | AZ9801-1A-6D   |
| 12                                  | 7.2              | 18                  | 90                    | AZ9801-1A-12D  |
| 24                                  | 14.4             | 37                  | 360                   | AZ9801-1A-24D  |
| COIL SPECIFICATIONS – HI COIL POWER |                  |                     |                       |                |
| Nominal Coil VDC                    | Must Operate VDC | Max. Continuous VDC | Coil Resistance ± 10% | ORDER NUMBER*  |
| 6                                   | 3.2              | 7                   | 18                    | AZ9801-1A-6DH  |
| 12                                  | 7.2              | 14                  | 72                    | AZ9801-1A-12DH |
| 24                                  | 14.4             | 28                  | 288                   | AZ9801-1A-24DH |

\* For parallel resistor add "R" to end of part number. Parallel resistor values: 180W for 12 V coil and 2700W for 24 V coil. Add suffix "E" for epoxy sealed version.

## HARDWARE ORDERING DATA

| DESCRIPTION | ORDER NUMBER |
|-------------|--------------|
| Socket      | ST980        |

## MECHANICAL DATA

| Outline Dimensions   | Wiring Diagrams   |
|--|---|
| <p>Outline Dimensions</p> <p>Dimensions: 1.03 [26.2], .980 [24.9], .705 [17.9], .327 [8.3], .561 [16.8], 2x.031 [.8], 2x.047 [1.2], 3x.598 [15.2], 2x.374 [9.5], 2x.248 [6.3], 2x.441 [11.2]</p>       | <p>Wiring Diagrams</p> <p>SPST (N.O.)</p> <p>VIEWED TOWARD TERMINALS</p>  |
| <p>Socket, SPST - ST980</p> <p>Dimensions: .761 [19.33], .206 [5.23], .292 [7.43], .697 [17.72], .319 [8.12], .632 [16.05], .729 [18.53], .967 [24.56], .903 [22.94], 1.265 [32.13], 1.147 [29.12]</p> | <p>Note: Recommended socket hardware:</p> <p>Coil Terminals: Amp 42281-1 (1/4") 14-18 Awg<br/>           Contact Terminals: Amp 280756-4 (3/8") 10-12 Awg</p> |

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"



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