

# AZ979

## 80 AMP MINI-ISO AUTOMOTIVE RELAY

### FEATURES

- 80 Amp contact rating – “Super ISO”
- High momentary carry current (500 A)
- High operating temperature (85°C)
- SPST (1 Form A), SPDT (1 Form C), SPST N.C. (Form B)
- Quick connect terminals
- ISO/TS 16949, ISO14001



### CONTACTS

|                    |  |
|--------------------|--|
| <b>Arrangement</b> | SPST- N.O. (1 Form A), SPST - N.C. (1 Form B), SPDT (1 Form C)   |
| <b>Ratings</b>     | Resistive load:<br>Max. switched power: 1120 W (SPST) Form A<br>840 W (N.O.) Form C<br>840 W (N.C.) Form C, Form B<br>Max. switched current: 80 A (SPST) Form A<br>60 A (N.O.) Form C<br>60 A (N.C.) Form C, Form B<br>Max. switched voltage: 30 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) | 0.76 W                               |
| Max. Continuous Dissipation | 3.0 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 80 A 14 VDC Res.   |
| <b>Operate Time (typical)</b>                        | 7 ms at nominal coil voltage   |
| <b>Release Time (typical)</b>                        | 5 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 85°C (185°F)<br>-40°C (-40°F) to 105°C (221°F)  |
| <b>Vibration</b>                                     | 0.062" DA at 10-55 Hz  |
| <b>Shock</b>   | 10 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>  | 48 grams   |



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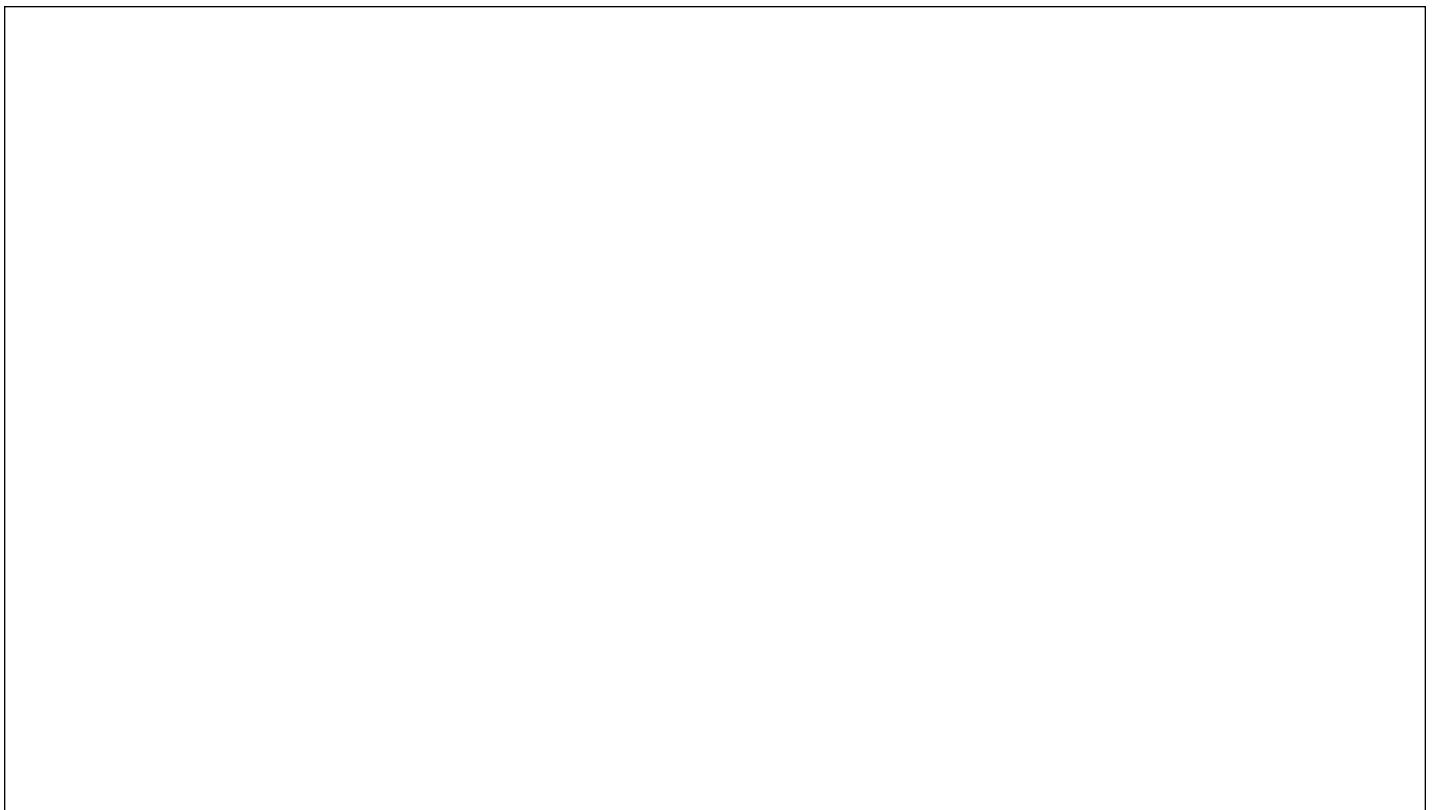
# AZ979

## RELAY ORDERING DATA

| COIL SPECIFICATIONS |                  |                     |                            | ORDER NUMBER* |              |
|---------------------|------------------|---------------------|----------------------------|---------------|--------------|
| Nominal Coil VDC    | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | SPST          | SPDT         |
| 6                   | 3.9              | 7.8                 | 20                         | AZ979-1A-6D   | AZ979-1C-6D  |
| 12                  | 7.8              | 19.0                | 90                         | AZ979-1A-12D  | AZ979-1C-12D |
| 24                  | 15.6             | 37.9                | 360                        | AZ979-1A-24D  | AZ979-1C-24D |

\* For SPST (N.C.) (1 Form B) relay, substitute "-1B" for "-1A". Add suffix "R" for resistor in parallel with coil. Resistor values: 6V: 180 ohms, 12V: 680 ohms, 24V: 2700 ohms. Add suffix "D" for diode across coil ("+" pole of power supply at terminal #86). Add suffix "C1" for steel mounting bracket. Add suffix "E" for epoxy sealed version.

## MECHANICAL DATA



Dimensions in inches with millimeters in brackets below. Tolerance:  $\pm .010$ "



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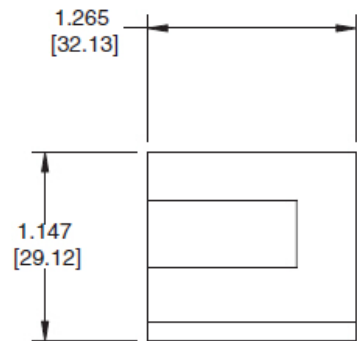
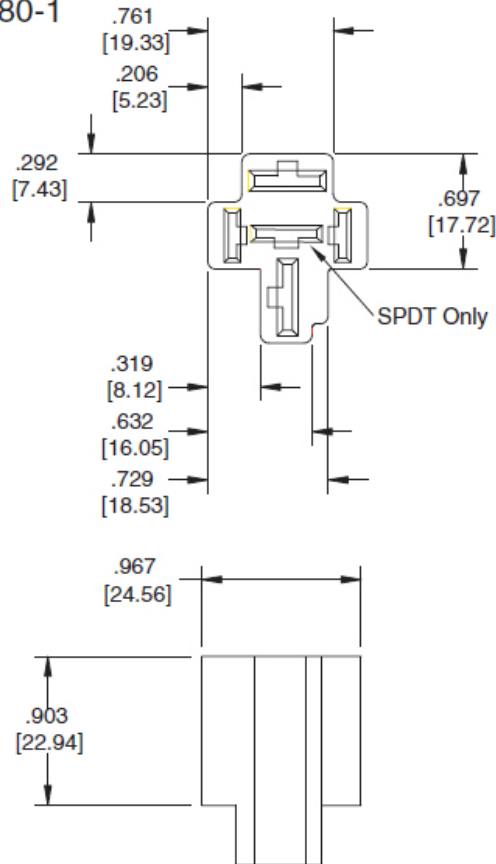
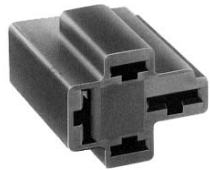
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## HARDWARE ORDERING DATA

| DESCRIPTION  | ORDER NUMBER |
|--------------|--------------|
| Socket 4 Pin | ST980        |
| Socket 5 Pin | ST980-1      |

## MECHANICAL DATA

Socket, SPST - ST980  
 Socket, SPDT - ST980-1



Note: Recommended socket hardware:

Coil Terminals: Amp 42281-1 (1/4") 14-18 Awg  
 Contact Terminals: Amp 280756-4 (3/8") 10-12 Awg



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