

# AZ980

## 80 AMP AUTOMOTIVE RELAY

### FEATURES

- 80 Amp contact rating
- High momentary carry current
- High operating temperature (85°C)
- SPST N.O. (1 Form A), SPDT (1 Form C), SPST N.C. (1 Form B)
- Quick connect terminals
- Epoxy sealed version available



### CONTACTS

|                    |                                                                                                                                                                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Arrangement</b> | SPST (N.O.) (1 Form A)<br>SPDT (1 Form C), SPST (N.C.) (1 Form B)                                                                                                                                                                                            |
| <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><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><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>                       |                                      |
| <b>At Pickup Voltage (typical)</b> | 0.76 W                               |
| <b>Max. Continuous Dissipation</b> | 3.0 W at 20°C (68°F)                 |
| <b>Temperature Rise</b>            | 56°C (101°F) at nominal coil voltage |
| <b>Temperature</b>                 | Max.155°C (311°F)                    |

### GENERAL DATA

|                                                                  |                                                                                                                                          |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Life Expectancy</b><br><b>Mechanical</b><br><b>Electrical</b> | 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><b>Operating</b><br><b>Storage</b> | -40°C (-40°F) to 85°C (185°F)<br>-40°C (-40°F) to 105°C (221°F)                                                                          |
| <b>Vibration</b>                                                 | 0.062" (1.5 mm) 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 force. |
| <b>Weight</b>                                                    | 46 grams                                                                                                                                 |

### 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.

**ZETTLER electronics GmbH**

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0  
Fax +49 89 800 97 200

office@ZETTLERelectronics.com  
www.ZETTLERelectronics.com

2003-06-24

# AZ980

## 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                         | AZ980-1A-6D   | AZ980-1C-6D  |
| 12                  | 7.8              | 15.6                | 80                         | AZ980-1A-12D  | AZ980-1C-12D |
| 24                  | 15.6             | 31.2                | 320                        | AZ980-1A-24D  | AZ980-1C-24D |

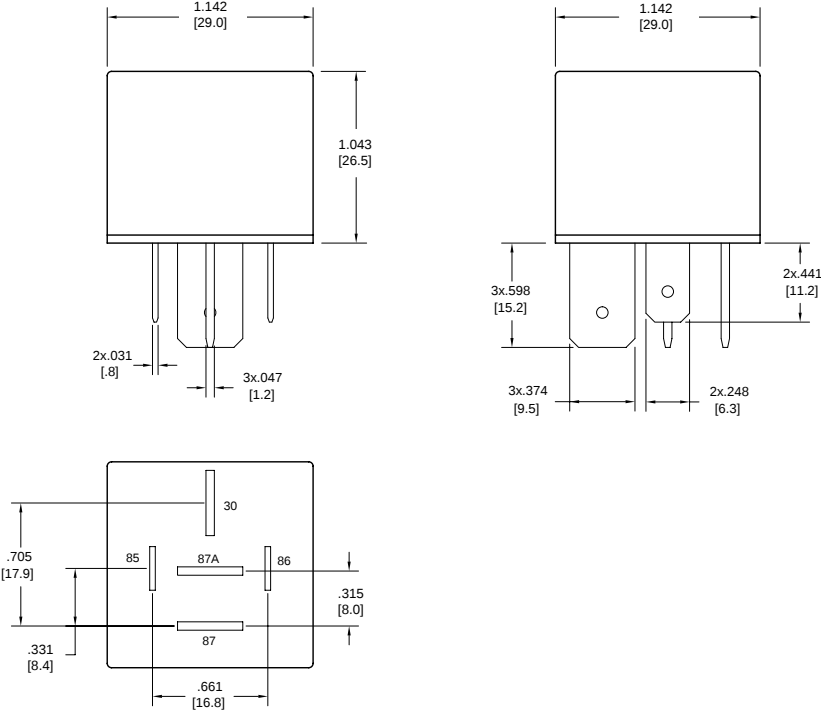
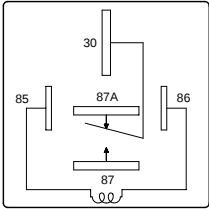
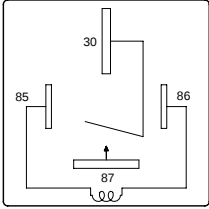
\* For SPST (N.C.) (1 Form B) relay, substitute "1B" for "1A".

Add suffix "R" for resistor in parallel with coil. Resistor values: 6V: 180  $\Omega$ , 12V: 680  $\Omega$ , 24V: 2700  $\Omega$ .

Add suffix "D" for diode across coil option (+ pole at terminal #86).

Add suffix "E" for epoxy sealed version.

## MECHANICAL DATA

| Outline Dimensions                                                                 | Wiring Diagrams                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>SPDT</b></p>  <p><b>SPST (N.O.)</b></p>  |

Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ "

**ZETTLER electronics GmbH**

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0

Fax +49 89 800 97 200

office@ZETTLERelectronics.com

www.ZETTLERelectronics.com

2003-06-24