

# AZ920

## ULTRA-SENSITIVE SUBMINIATURE RELAY

### FEATURES

- Extremely small footprint utilizing only 0.16 square inch of PCB area
- Thin vertical profile only 0.2" wide
- Slim SIP package
- 1 Form A contact with up to 5 Amp switching capability
- High sensitivity, 58 mW pickup
- Dielectric strength 2500 Vrms contact to coil
- Epoxy sealed
- UL, CUR file E43203
- TÜV file R50018790



### CONTACTS

|                               |  |
|-------------------------------|--|
| <b>Arrangement</b>            | SPST (1 Form A)<br>Single button contact or bifurcated   |
| <b>Ratings</b>                | Resistive load:<br>Max. switched power: 150 W or 1250 VA<br>Max. switched current: 5 A<br>Max. switched voltage: 150* VDC or 250 VAC<br><br>*Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| <b>Rated Load<br/>UL, CUR</b> | 5 A at 30 VDC or 250 VAC<br>General Use, 100k cycles [1]   |
| <b>TÜV</b>                    | 5 A at 30 VDC or 250 VAC Resistive, 100k cycles [1]<br>3 A at 30 VDC or 250 VAC General Use, 75k cycles[2]<br>3 A at 30 VDC or 250 VAC Resistive, 75k cycles [2]<br><br>[1] Single button contacts<br>[2] Bifurcated contacts                                  |
| <b>Material</b>               | Silver nickel (single button or bifurcated contacts),<br>or silver tin oxide (single button contacts),<br>gold plating available   |
| <b>Resistance</b>             | < 50 milliohms initially   |

### GENERAL DATA

|  |  |
|--|--|
| <b>Life Expectancy<br/>Mechanical<br/>Electrical</b>     | Minimum operations<br>20 million operations<br>1 X 10 <sup>5</sup> at 5 A, 30 VDC or 250 VAC |
| <b>Operate Time (typical)</b>                            | 6 ms at nominal coil voltage   |
| <b>Release Time (typical)</b>                            | 3 ms at nominal coil voltage<br>(with no coil suppression)                                   |
| <b>Dielectric Strength<br/>(at sea level for 1 min.)</b> | 1000 Vrms between open contacts<br>2500 Vrms contact to coil                                 |
| <b>Insulation<br/>Resistance</b>                         | 1000 megohms min. at 20°C, 500 VDC,<br>50% RH  |
| <b>Dropout</b>   | Greater than 10% of nominal coil voltage   |
| <b>Ambient Temperature<br/>Operating<br/>Storage</b>     | At nominal coil voltage<br>-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>   | 15 g   |
| <b>Enclosure</b>   | P.B.T. polyester   |
| <b>Terminals</b>   | Tinned copper alloy, P.C.  |
| <b>Max. Solder Temp.</b>                                 | 270°C (518°F)  |
| <b>Max. Solder Time</b>                                  | 5 seconds  |
| <b>Max. Solvent Temp.</b>                                | 80°C (176°F)   |
| <b>Max. Immersion Time</b>                               | 30 seconds   |
| <b>Weight</b>  | 3 grams  |
| <b>Packing unit in pcs</b>                               | 100 per plastic tube / 1000 per carton box   |

### COIL

|   |  |
|---|--|
| <b>Power<br/>At Pickup Voltage<br/>(typical)</b>    | 58 mW (5-18 V coils)<br>88 mW (24 V coil)                |
| <b>Max. Continuous<br/>Dissipation</b>              | 1.3 W at 20°C (68°F) ambient                             |
| <b>Temperature Rise<br/>at nominal coil voltage</b> | 12°C (22°F) 5-18 V coils<br>17°C (31°F) 24 V coil        |
| <b>Temperature</b>                                  | Max. 130°C (266°F) Class B<br>Max. 155°C (311°F) Class 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.

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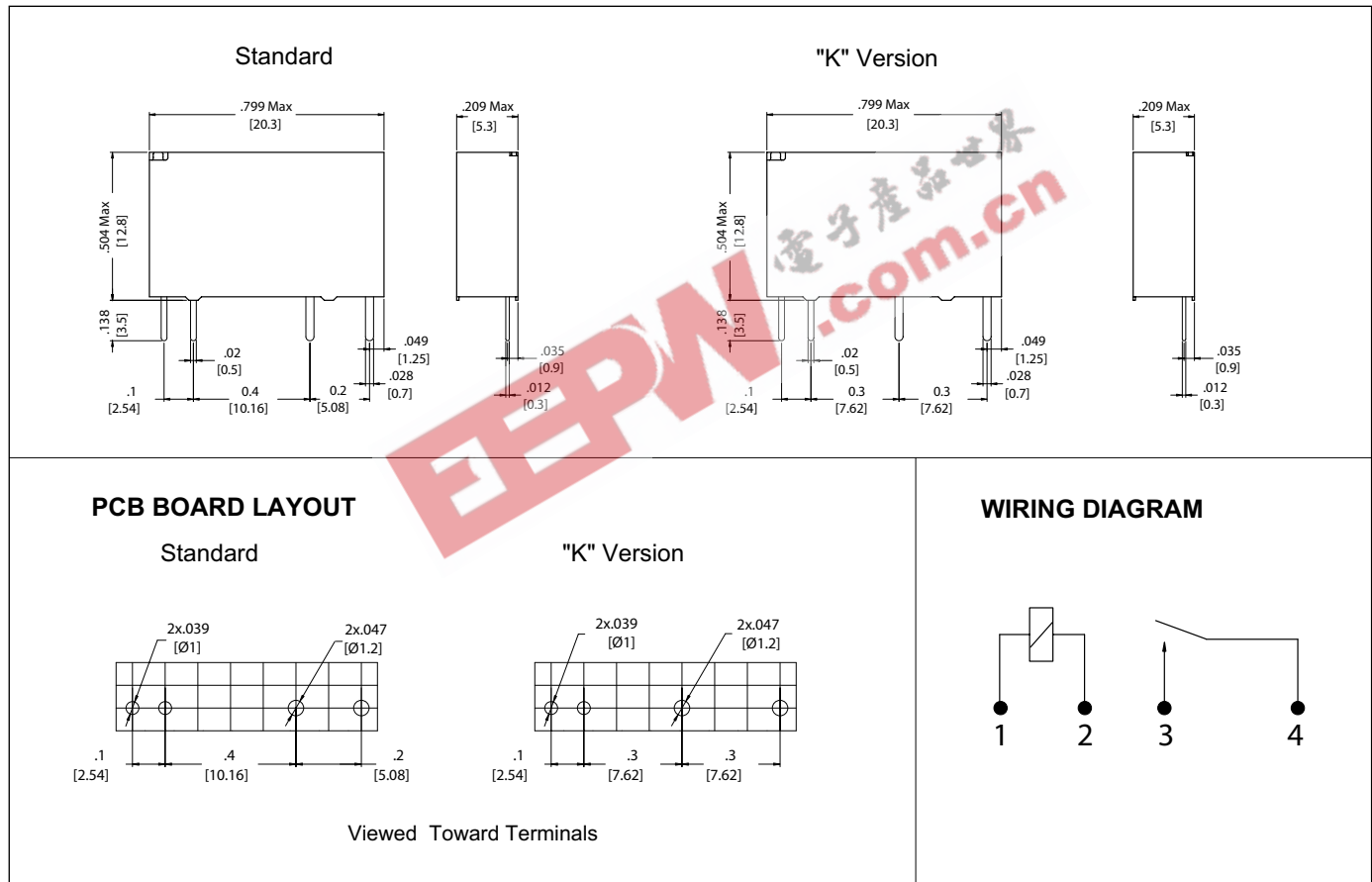
# AZ920

## RELAY ORDERING DATA

| COIL SPECIFICATIONS |                  |                     |                                |               |
|---------------------|------------------|---------------------|--------------------------------|---------------|
| Nominal Coil VDC    | Must Operate VDC | Max. Continuous VDC | Coil Resistance Ohm $\pm 10\%$ | ORDER NUMBER* |
| 5                   | 3.5              | 16.5                | 208                            | AZ920-1A-5DE  |
| 6                   | 4.2              | 19.9                | 300                            | AZ920-1A-6DE  |
| 9                   | 6.3              | 29.8                | 675                            | AZ920-1A-9DE  |
| 12                  | 8.4              | 39.8                | 1,200                          | AZ920-1A-12DE |
| 18                  | 12.6             | 59.6                | 2,700                          | AZ920-1A-18DE |
| 24                  | 16.8             | 65.0                | 3,200                          | AZ920-1A-24DE |

\* Substitute "-1AB" in place of "-1A" for bifurcated silver nickel contacts. Substitute "-1AH" in place of "-1A" for silver tin oxide contacts. Add suffix "A" for gold plated contacts. Add suffix "K" for .3 inch terminal spacing. Add suffix "F" for Class F insulation.

## MECHANICAL DATA



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

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