

## SPDT SUBMINIATURE RELAY

### FEATURES

- Subminiature size for high density packaging
- Epoxy sealed for automatic wave soldering
- DIL pitch terminals
- High sensitivity coils with 96 mW pickup power
- RoHS compliant
- UL, CUR file E43203



### CONTACTS

|                           |  |
|---------------------------|--|
| <b>Arrangement</b>        | SPDT (1 Form C)  |
| <b>Ratings (max.)</b>     | (resistive load)   |
| switched power            | 30 W or 62.5 VA  |
| switched current          | 1 A  |
| switched voltage          | 60 VDC* or 125 VAC   |
|                           | * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.          |
| <b>Rated Loads</b>        |  |
| UL                        | 0.5 A at 125 VAC, resistive, 100k cycles<br>1 A at 30 VDC, resistive, 100k cycles<br>0.3 A at 60 VDC, resistive, 100k cycles |
| <b>Contact materials</b>  | AgNi/Au - silver nickel (gold plated)  |
| <b>Minimum switching</b>  | 50 mA / 6 V  |
| <b>Initial resistance</b> | < 100 mΩ   |

### COIL

|                                    |  |
|------------------------------------|--|
| <b>Nominal coil DC voltages</b>    | see coil voltage specifications tables |
| <b>Dropout</b>                     | > 10% of nominal coil voltage          |
| <b>Power at pickup voltage</b>     | (typ.)                                 |
| standard coil                      | 128 mW                                 |
| sensitive coil                     | 96 mW                                  |
| <b>Max. continuous dissipation</b> | 600 mW at 20°C (68°F) ambient          |
| <b>Max. temperature</b>            | 105°C (221°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>       | (minimum operations)   |
| mechanical                   | 5 x 10 <sup>6</sup>  |
| electrical                   | 1 x 10 <sup>5</sup>  |
| <b>Operate Time</b>          | 5 ms (max.) at nominal coil voltage  |
| <b>Release Time</b>          | 5 ms (max.) at nominal coil voltage, without coil suppression  |
| <b>Dielectric Strength</b>   | (at sea level for 1 min.)<br>1000 V <sub>RMS</sub> coil to contact<br>400 V <sub>RMS</sub> between open contacts |
| <b>Insulation Resistance</b> | 1000 MΩ (min.) at 20°C, 500 VDC, 50% RH  |
| <b>Temperature Range</b>     | (at nominal coil voltage)  |
| operating                    | -30°C (-22°F) to 70°C (158°F)  |
| <b>Vibration resistance</b>  | 3.3 mm (0.130") DA at 10–55 Hz   |
| <b>Shock resistance</b>      | 10 g operating   |
| <b>Terminals</b>             | Tinned copper alloy, P. C.   |
| <b>Soldering</b>             |  |
| max. Temperature             | 260°C (500°F)  |
| max. Time                    | 5 seconds  |
| <b>Cleaning</b>              |  |
| max. Solvent Temp.           | 80°C (176°F)   |
| max. Immersion Time          | 30 seconds   |
| <b>Dimensions</b>            |  |
| length                       | 12.5 mm (0.49")  |
| width                        | 7.5 mm (0.30")   |
| height                       | 10.0 mm (0.39")  |
| <b>Weight</b>                | 2.2 grams  |
| <b>Compliance</b>            | IEC 61810-1, UL 508, RoHS  |
| <b>Packing unit in pcs</b>   | 20 per tray / 1000 per carton box  |

# AZ9571

## COIL VOLTAGE SPECIFICATIONS

### Standard Coil

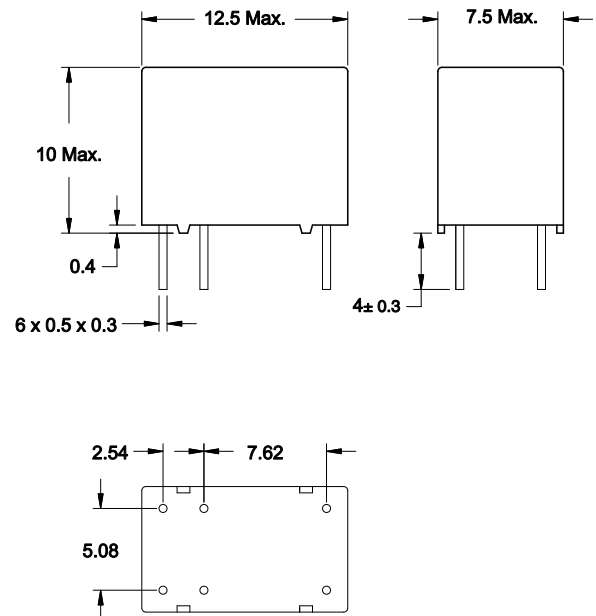
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Resistance Ohm $\pm$ 10% |
|------------------|------------------|---------------------|--------------------------|
| 3                | 2.4              | 4.5                 | 45                       |
| 5                | 4.0              | 7.5                 | 125                      |
| 6                | 4.8              | 9.0                 | 180                      |
| 9                | 7.2              | 13.5                | 405                      |
| 12               | 9.6              | 18.0                | 720                      |
| 24               | 19.2             | 36.0                | 2880                     |

### Sensitive Coil

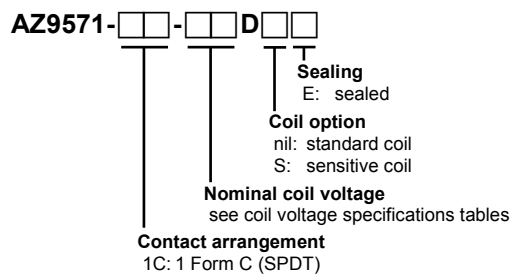
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Resistance Ohm $\pm$ 10% |
|------------------|------------------|---------------------|--------------------------|
| 3                | 2.4              | 6.0                 | 60                       |
| 5                | 4.0              | 10.0                | 167                      |
| 6                | 4.8              | 12.0                | 240                      |
| 9                | 7.2              | 18.0                | 540                      |
| 12               | 9.6              | 24.0                | 960                      |
| 24               | 19.2             | 48.0                | 3840                     |

## MECHANICAL DATA

Dimensions in mm.



## ORDERING DATA



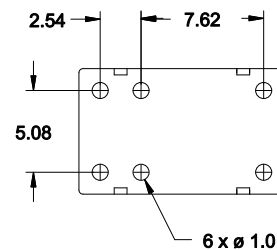
### Example ordering data

AZ9571-1C-5DE 5 VDC nominal coil voltage, standard coil, sealed

AZ9571-1C-12DSE 12 VDC nominal coil voltage, sensitive coil, sealed

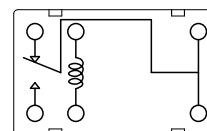
## PC BOARD LAYOUT

Viewed towards terminals.  
Dimensions in mm.



## WIRING DIAGRAMS

Viewed towards terminals, shown in de-energized condition.



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This product specification to be used only together with the application notes which can be downloaded from [www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf](http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf)