

# AZ943

## 15 AMP MINIATURE PC BOARD RELAY

### FEATURES

- High performance
- Low seated height
- Flux tight and sealed versions available
- Class F insulation (155°C) available
- UL, CUR file E43203
- TÜV file R50161256



### CONTACTS

|                          |  |
|--------------------------|--|
| <b>Arrangement</b>       | SPST (1 Form A)<br>SPDT (1 Form C)   |
| <b>Ratings</b>           | Resistive load:<br><br>Max. switched power: 300 W or 2770 VA<br>Max. switched current: 15 A (AC), 10 A (DC)<br>Max. switched voltage: 30 VDC or 300 VAC  |
| <b>Rated Load<br/>UL</b> | 10 A at 277 VAC, general use, 70°C, 100k cycles<br>10 A at 30 VDC, resistive, 70°C (N.O.)<br>1.5 HP at 125 VAC, 70°C, 6k cycles (N.O.)<br><br>SPST (1 Form A)<br>15 A at 125 VAC, general use, 70°C, 6k cycles<br>12 A at 120 VAC, resistive, 70°C, 6k cycles<br>8 A at 125 VAC, tungsten, 70°C  |
| <b>TÜV</b>               | SPDT (1 Form C)<br>10 A at 120 VAC, resistive, 70°C, 100k cycles (N.O.)<br>10 A at 120 VAC, resistive, 70°C, 6k cycles (N.C.)<br>7 A at 30 VDC, resistive, 70°C (N.C.)<br><br>12 A at 125 VAC, resistive, 85°C, 10k cycles<br>10 A at 277 VAC, resistive, 85°C, 10k cycles<br>5 A at 250 VAC, resistive, 85°C, 25k cycles<br><br>SPST (1 Form A)<br>10 A at 277 VAC, resistive, 85°C, 25k cycles |
| <b>Material</b>          | Silver tin oxide   |
| <b>Resistance</b>        | < 100 milliohms initially<br>(at 24 V, 1 A, voltage drop method)   |

### GENERAL DATA

|  |   |
|--|---|
| <b>Life Expectancy<br/>Mechanical<br/>Electrical</b>     | 1 x 10 <sup>6</sup><br>1 x 10 <sup>5</sup> at 10A 277 VAC Res.  |
| <b>Operate Time</b>                                      | 10 ms max.  |
| <b>Release Time</b>                                      | 5 ms max.<br>(with no coil suppression)   |
| <b>Dielectric Strength<br/>(at sea level for 1 min.)</b> | 1500 Vrms contact to coil<br>1000 Vrms across contacts  |
| <b>Insulation Resistance</b>                             | 100 megohms min. at 500 VDC,<br>50% RH  |
| <b>Dropout</b>   | Greater than 10% of nominal coil voltage  |
| <b>Ambient Temperature<br/>Operating</b>                 | At nominal coil voltage<br>-40°C(-40°F) to 70°C(158°F) class B<br>-40°C(-40°F) to 85°C(185°F) class 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>   | 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>  | 10 g  |
| <b>Packing unit in pcs</b>                               | 20 per plastic tube / 1000 per carton box   |

### COIL

|                                   |  |
|-----------------------------------|--|
| <b>Power</b>                      |  |
| <b>At Pickup Voltage</b>          | 203 mW   |
| <b>Max Continuous Dissipation</b> | 1.8 W at 20°C (68°F) Class B<br>2.4 W at 20°C (68°F) Class F |
| <b>Temperature Rise</b>           | 32°C (58°F) at nominal coil voltage                          |
| <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. Unsealed relays should not be dip cleaned.
4. Specifications subject to change without notice.

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

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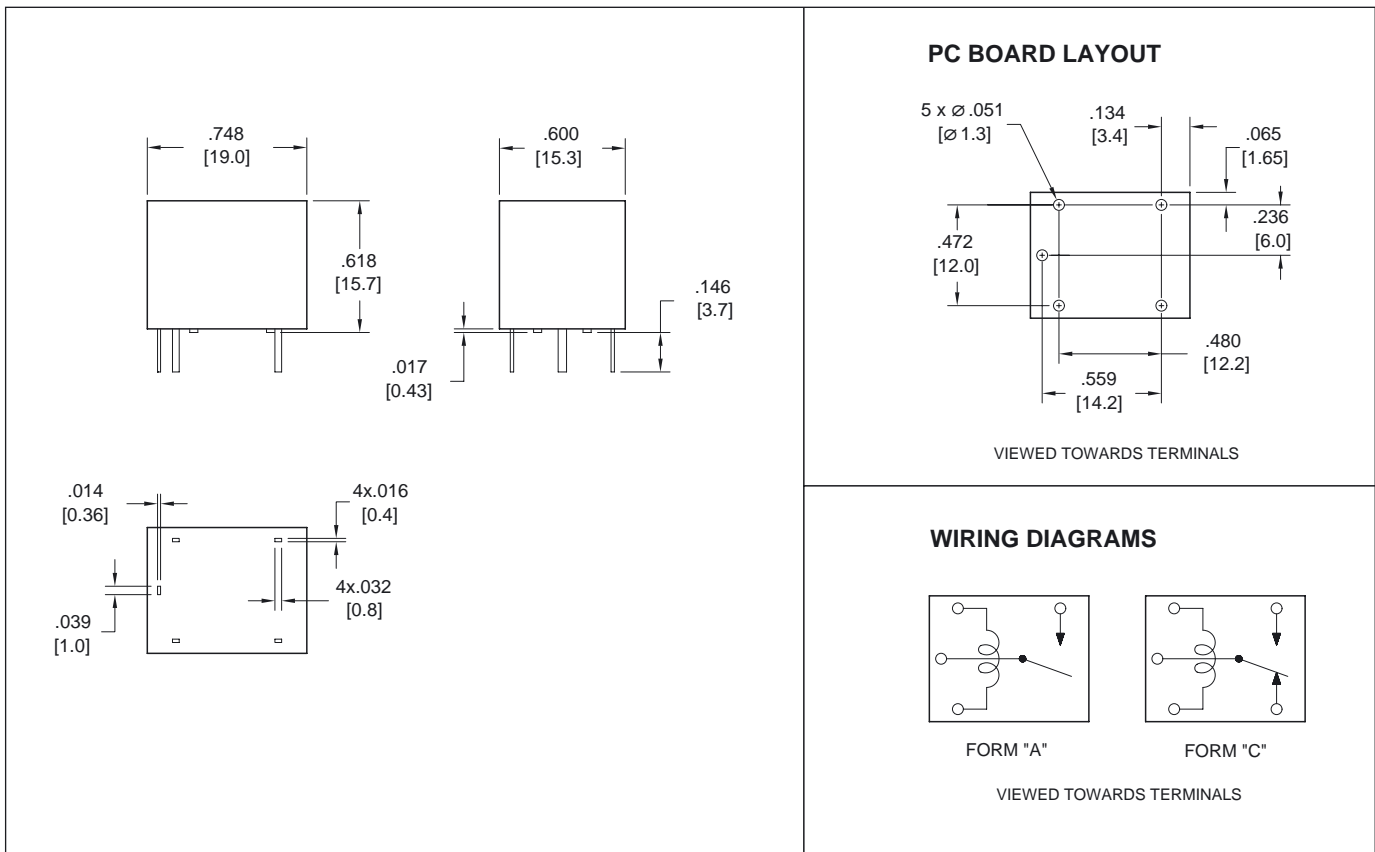
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## RELAY ORDERING DATA

| STANDARD RELAYS     |                  |                     |                                | ORDER NUMBER* |                |
|---------------------|------------------|---------------------|--------------------------------|---------------|----------------|
| COIL SPECIFICATIONS |                  |                     |                                | ORDER NUMBER* |                |
| Nominal Coil VDC    | Must Operate VDC | Max. Continuous VDC | Coil Resistance Ohm $\pm 10\%$ | Unsealed      | Sealed         |
| 5                   | 3.8              | 11.2                | 70                             | AZ943-1CH-5D  | AZ943-1CH-5DE  |
| 6                   | 4.5              | 13.4                | 100                            | AZ943-1CH-6D  | AZ943-1CH-6DE  |
| 9                   | 6.8              | 20.1                | 225                            | AZ943-1CH-9D  | AZ943-1CH-9DE  |
| 12                  | 9.0              | 26.8                | 400                            | AZ943-1CH-12D | AZ943-1CH-12DE |
| 18                  | 13.5             | 40.2                | 900                            | AZ943-1CH-18D | AZ943-1CH-18DE |
| 24                  | 18.0             | 53.4                | 1,600                          | AZ943-1CH-24D | AZ943-1CH-24DE |
| 36                  | 27.0             | 80.1                | 3,600                          | AZ943-1CH-36D | AZ943-1CH-36DE |
| 48                  | 36.0             | 107.3               | 6,400                          | AZ943-1CH-48D | AZ943-1CH-48DE |

\*Substitute "1AH" in place of "1CH" to indicate 1 Form A contact. To indicate Class F version, add suffix "F".

## MECHANICAL DATA



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

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