# AZ9431

## 15 AMP MINIATURE PC BOARD RELAY



### FEATURES

- High performance
- Low seated height
- 6 kV surge version available
- Flux tight and sealed versions available
- Class B insulation (130°C) standard, Class F (155°C) available
- UL, CUR file E43203

### CONTACTS

| | |
|---|---|
| **Arrangement** | SPST N.O. (1 Form A)<br>SPDT (1 Form C) |
| **Ratings**<br>**Medium Duty**<br><br><br>**Heavy Duty** | <br>Max. switched power: 240 W or 1200 VA<br>Max. switched current: 10 A<br>Max. switched voltage: 150* VDC or 300 VAC<br>Max. switched power: 360 W or 2500 VA<br>Max. switched current: 15 A<br>Max. switched voltage: 150* VDC or 300 VAC |
| **UL/CUR Ratings**<br>**Medium Duty**<br><br>**Heavy Duty** | <br>10 A at 120 VAC, General Use<br>10 A at 24 VDC, General Use<br>10 A at 250 VAC, General Use<br>15 A at 120 VAC, General Use<br>15 A at 24 VDC, General Use<br>*Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| **Material** | Medium Duty: Silver cadmium oxide<br>Heavy Duty: Silver tin oxide |
| **Resistance** | < 100 milliohms initially<br>(24 V, 1 A method) |

### COIL

| | |
|---|---|
| **Power**<br>**At Pickup Voltage**<br>**Max Continuous Dissipation** | <br>203 mW<br>1.7 W at 20°C (68°F) |
| **Temperature Rise**<br>**(at nominal coil voltage)** | 22°C (40°F) |
| **Temperature** | 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.

### GENERAL DATA

| | |
|---|---|
| **Life Expectancy**<br>**Mechanical**<br>**Electrical** | <br>1 x $10^6$<br>1 x $10^5$ at 10 A 120 VAC res. |
| **Operate Time** | 10 ms max. |
| **Release Time** | 5 ms max.<br>(with no coil suppression) |
| **Dielectric Strength**<br>**(at sea level for 1 min.)** | 3000 Vrms contact to coil (6 kV version)<br>1500 Vrms contact to coil<br>1000 Vrms across contacts |
| **Insulation Resistance** | 100 megohms min. at 500 VDC,<br>50% RH |
| **Dropout** | Greater than 10% of nominal coil voltage |
| **Ambient Temperature**<br>**Operating**<br>**Storage** | At nominal coil voltage<br>-40°C(-40°F) to 100°C(212°F)<br>-40°C(-40°F) to 155°C(311°F) |
| **Vibration** | 0.062" DA at 10–55 Hz |
| **Shock** | 10 g |
| **Enclosure** | P.B.T. polyester |
| **Terminals** | Tinned copper alloy, P.C. |
| **Max. Solder Temp.** | 270°C (518°F) |
| **Max. Solder Time** | 5 seconds |
| **Max. Solvent Temp.** | 80°C (176°F) |
| **Max. Immersion Time** | 30 seconds |
| **Weight** | 10 g |

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5/26/05W

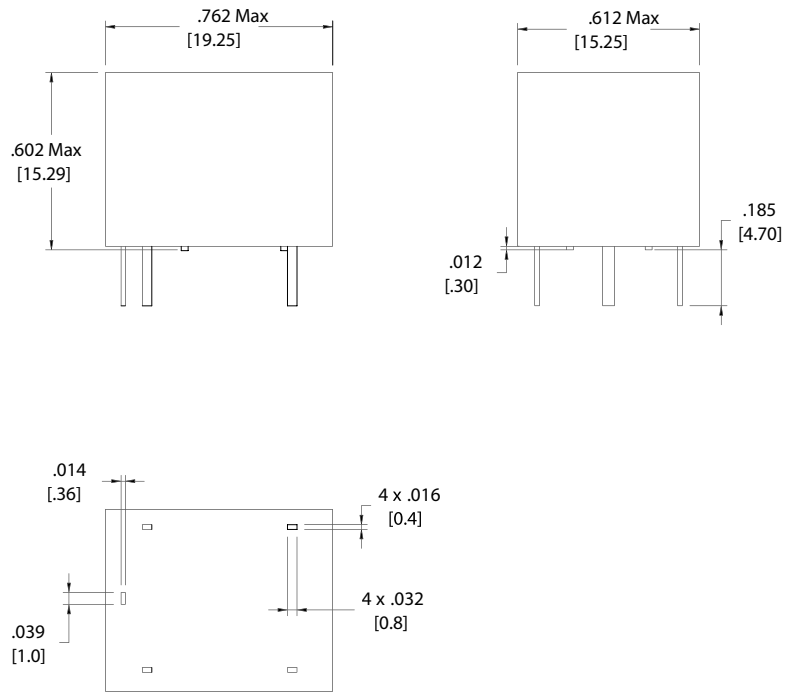
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## RELAY ORDERING DATA

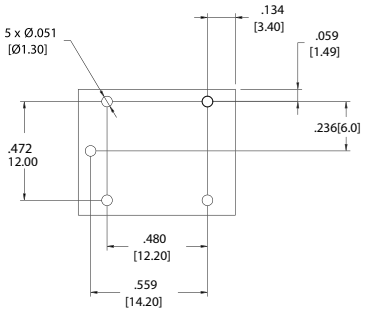
| STANDARD RELAYS | | | | | | | |
|---|---|---|---|---|---|---|---|
| COIL SPECIFICATIONS | | | | ORDER NUMBER* | | | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance ±10% | Must Operate VDC | Medium Duty 10 Amp contact) | | Heavy duty (15 Amp contact) | |
| | | | | Unsealed | Sealed | Unsealed | Sealed |
| 5 | 10.9 | 70 | 3.8 | AZ9431–1C–5D | AZ9431–1C–5DE | AZ9431–1CH–5D | AZ9431–1CH–5DE |
| 6 | 13.0 | 100 | 4.5 | AZ9431–1C–6D | AZ9431–1C–6DE | AZ9431–1CH–6D | AZ9431–1CH–6DE |
| 9 | 19.5 | 225 | 6.8 | AZ9431–1C–9D | AZ9431–1C–9DE | AZ9431–1CH–9D | AZ9431–1CH–9DE |
| 12 | 26.0 | 400 | 9.0 | AZ9431–1C–12D | AZ9431–1C–12DE | AZ9431–1CH–12D | AZ9431–1CH–12DE |
| 18 | 39.1 | 900 | 13.5 | AZ9431-1C-18D | AZ9431-1C-18DE | AZ9431–1CH–18D | AZ9431–1CH–18DE |
| 24 | 52.1 | 1,600 | 18.0 | AZ9431–1C–24D | AZ9431–1C–24DE | AZ9431–1CH–24D | AZ9431–1CH–24DE |
| 48 | 104.3 | 6,400 | 36.0 | AZ9431–1C–48D | AZ9431–1C–48DE | AZ9431–1CH–48D | AZ9431–1CH–48DE |

*Substitute “1A” or “1AH” in place of “1C” or “1CH” to indicate 1 Form A. Add suffix “F” for Class F version. Add “H” to AZ9431 for 6 kV version.

## MECHANICAL DATA

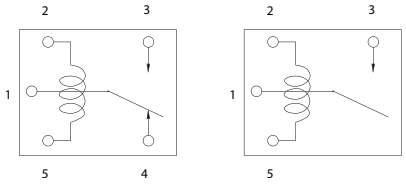



PC Board Layout




VIEWED TOWARD TERMINALS

Wiring Diagram




FORM C FORM A

VIEWED TOWARD TERMINALS

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"


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