

# 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

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

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	1 x 10 <sup>6</sup> 1 x 10 <sup>5</sup> at 10 A 120 VAC res.
<b>Operate Time</b>	10 ms max.
<b>Release Time</b>	5 ms max. (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	3000 Vrms contact to coil (6 kV version) 1500 Vrms contact to coil 1000 Vrms across contacts
<b>Insulation Resistance</b>	100 megohms min. at 500 VDC, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -40°C(-40°F) to 100°C(212°F) -40°C(-40°F) to 155°C(311°F)
<b>Vibration</b>	0.062" 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

### COIL

<b>Power At Pickup Voltage Max Continuous Dissipation</b>	203 mW 1.7 W at 20°C (68°F)
<b>Temperature Rise (at nominal coil voltage)</b>	22°C (40°F)
<b>Temperature</b>	Max. 130°C (266°F) Class B 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.

**AMERICAN ZETTLER, INC.**

5/26/05W

# AZ9431

## RELAY ORDERING DATA

STANDARD RELAYS				ORDER NUMBER*			
COIL SPECIFICATIONS				ORDER NUMBER*			
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	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

Dimensions shown in drawings:  
 Main body width: .762 Max [19.25]  
 Main body height: .602 Max [15.29]  
 Terminal pin width: .612 Max [15.25]  
 Terminal pin height: .185 [4.70]  
 Terminal pin thickness: .012 [.30]

### PC Board Layout

Dimensions shown in PC Board Layout:  
 Hole diameter: 5 x  $\varnothing 0.051$  [ $\varnothing 1.30$ ]  
 Mounting hole offset: .134 [3.40]  
 Mounting hole diameter: .059 [1.49]  
 Mounting hole spacing: .236 [6.0]  
 Mounting hole diameter: .472 [12.00]  
 Mounting hole offset: .480 [12.20]  
 Mounting hole diameter: .559 [14.20]

VIEWED TOWARD TERMINALS

Wiring Diagram:  
 FORM C: Coil terminals 1, 2, 3; Contact terminals 4, 5.  
 FORM A: Coil terminals 1, 2, 3; Contact terminals 4, 5.  
 VIEWED TOWARD TERMINALS

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

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.