

# AZ942

## 16 AMP MINIATURE PC BOARD RELAY

### FEATURES

- Extremely low cost
- High switching capacity — 16 Amps
- DC coils to 48 VDC
- UL, CUR file E44211
- Class B insulation for high temperature operation
- Class F insulation available



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load
<b>Medium Duty</b>	Max. switched power: 150 W or 2770 VA Max. switched current: 10 A Max. switched voltage: 30 VDC or 300 VAC <b>UL Rating:</b> 5 A at 30 VDC 10 A at 277 VAC 1/3 HP at 125 VAC (1 Form A) 2.9 A 125 VAC Pilot Duty (1 Form A)
<b>Heavy Duty</b>	Max. switched power: 480 W or 4000 VA Max. switched current: 16 A Max. switched voltage: 30 VDC or 300 VAC <b>UL Rating:</b> 12 A at 28 VDC 12 A at 277 VAC 16A at 250 VAC (SPDT) 2.0 A at 240 VAC Pilot Duty
<b>Material</b>	Medium Duty: Silver cerium Heavy Duty: Silver tin oxide
<b>Resistance</b>	<100 milliohms initially (24 V, 1 A voltage drop method)

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	230 mW
<b>Max Continuous Dissipation</b>	Class B: 1.8 W at 20°C (68°F) ambient Class F: 2.4 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	23°C (42°F) at nominal coil voltage
<b>Temperature</b>	Class B: Max. 130°C (266°F) Class F: Max. 155°C (311°F)

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1x10 <sup>7</sup> 1 x 10 <sup>5</sup> at 10 A 277 VAC Res.
<b>Operate Time (typical)</b>	10 ms at nominal coil voltage
<b>Release Time (typical)</b>	5 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1750 Vrms contact to coil 1000 Vrms across contacts
<b>Insulation Resistance</b>	100 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating</b> <b>Storage</b>	At nominal coil voltage Class B: -40°C(-40°F) to 100°C(212°F) Class F: -40°C(-40°F) to 120°C(248°F) Class B: -55°C(-67°F) to 130°C(266°F) Class F: -55°C(-67°F) to 155°C(311°F)
<b>Vibration</b>	0.062" DA at 10–55Hz
<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>	13 g

### 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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## RELAY ORDERING DATA

STANDARD RELAYS: Medium Duty Type (10 Amp Contact)				ORDER NUMBER*	
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
3	2.4	6.7	25	AZ942-1CH-3D	AZ942-1CH-3DE
5	4.0	11.2	70	AZ942-1CH-5D	AZ942-1CH-5DE
6	4.8	13.4	100	AZ942-1CH-6D	AZ942-1CH-6DE
9	7.2	20.1	225	AZ942-1CH-9D	AZ942-1CH-9DE
12	9.6	26.8	400	AZ942-1CH-12D	AZ942-1CH-12DE
18	14.4	40.2	900	AZ942-1CH-18D	AZ942-1CH-18DE
24	19.2	53.6	1,600	AZ942-1CH-24D	AZ942-1CH-24DE
48	38.4	107.3	6,400	AZ942-1CH-48D	AZ942-1CH-48DE

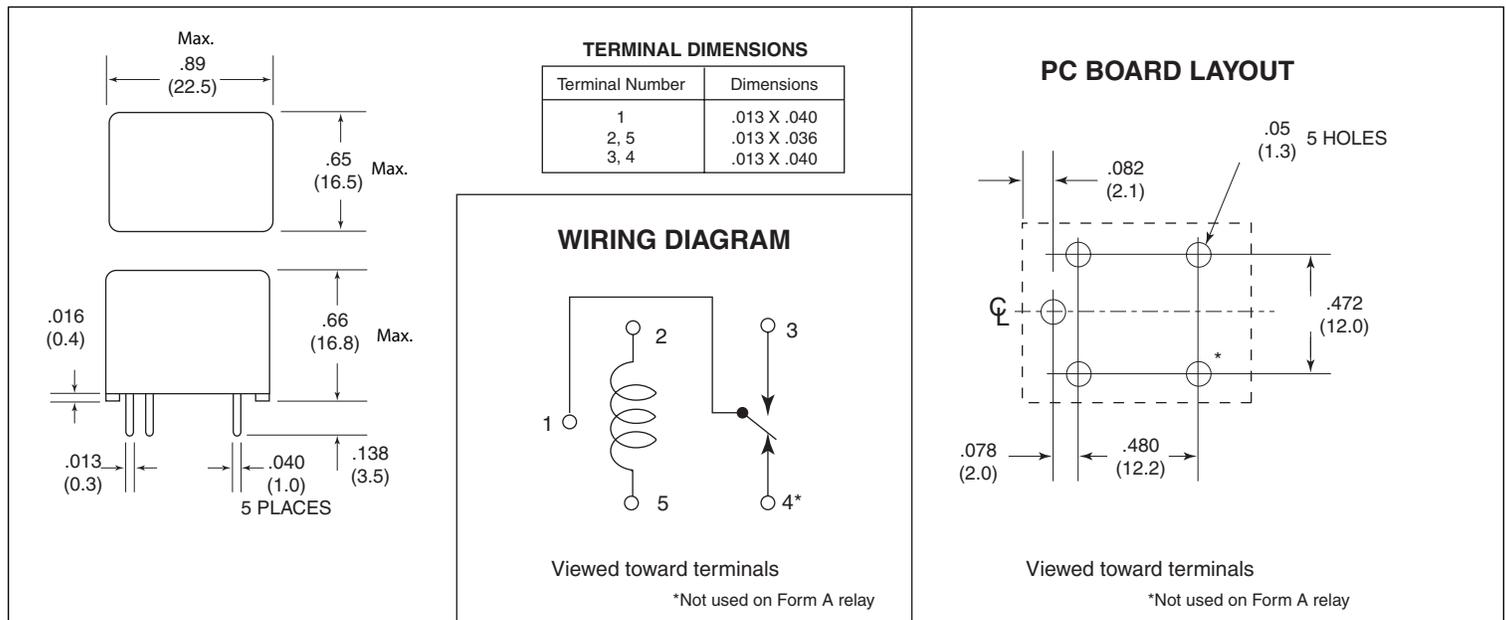
\*Substitute "1AT" in place of "1CH" to indicate 1 Form A contact. To indicate Class F version, add suffix "F."

## RELAY ORDERING DATA

STANDARD RELAYS: Heavy Duty Type (16 Amp Contact)				ORDER NUMBER*	
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
3	2.4	6.7	25	AZ942-1CT-3D	AZ942-1CT-3DE
5	4.0	11.2	70	AZ942-1CT-5D	AZ942-1CT-5DE
6	4.8	13.4	100	AZ942-1CT-6D	AZ942-1CT-6DE
9	7.2	20.1	225	AZ942-1CT-9D	AZ942-1CT-9DE
12	9.6	26.8	400	AZ942-1CT-12D	AZ942-1CT-12DE
18	14.4	40.2	900	AZ942-1CT-18D	AZ942-1CT-18DE
24	19.2	53.6	1,600	AZ942-1CT-24D	AZ942-1CT-24DE
48	38.4	107.3	6,400	AZ942-1CT-48D	AZ942-1CT-48DE

\*Substitute "1AW" in place of "1CT" 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:  $\pm 0.010$ "

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3/30/12

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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.