


# AZ941

## MINIATURE PC BOARD RELAY

### FEATURES

- Contacts rated at 3, 5, 10 or 16 Amps
- DC coils to 48 V
- Extremely low cost
- Life expectancy to 10 million operations
- Epoxy sealed
- UL, CUR file E44211; VDE 10056
- Class F available 



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C) Form A available upon request
<b>Ratings</b>	Resistive load
<b>Light Duty</b>	Max. switched power: 90 W or 750 VA Max. switched current: 3 A Max. switched voltage: 150* VDC or 300 VAC <b>UL Rating:</b> 3 A at 30 VDC or 250 VAC
<b>Medium Duty</b>	Max. switched power: 150 W or 1250 VA Max. switched current: 5 A Max. switched voltage: 150* VDC or 300 VAC <b>UL Rating:</b> 5 A at 30 VDC or 125 VAC 1/10 HP @ 125 VAC
<b>Heavy Duty</b>	Max. switched power: 300 W or 2500 VA Max. switched current: 12 A Max. switched voltage: 150* VDC or 300 VAC <b>UL Rating:</b> 5 A at 30 VDC 12 A at 125 VAC 1/4 HP @ 125 VAC 1/2 HP @ 250 VAC
<b>Extra Heavy Duty</b>	Max. switched power: 300 W or 4000 VA Max. switched current: 16 A Max. switched voltage: 150* VDC or 300 VAC <b>UL Rating:</b> 16 A at 125 VAC 10 A at 30 VDC
	*Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Material</b>	Silver cadmium oxide
<b>Resistance</b>	< 100 milliohms initially


### 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 12 A 120 VAC Res.
<b>Operate Time (typical)</b>	6 ms at nominal coil voltage
<b>Release Time (typical)</b>	2 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength</b> <b>(at sea level for 1 min.)</b>	1500 Vrms contact to coil 750 Vrms contact to contact Meets FCC part 68.302 1500 V lightning surge Meets FCC part 68.304 1000 V dielectric
<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 -40°C (-40°F) to 70°C (158°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.062" (1.5 mm) 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 grams

### COIL

<b>Power</b>	
<b>At Pickup Voltage</b> <b>(typical)</b>	230 mW
<b>Max Continuous</b> <b>Dissipation</b>	1.1 W 20°C (68°F) ambient .86 W 40°C (104°F) ambient
<b>Temperature Rise</b>	27°C (49°F) nominal coil voltage
<b>Temperature</b>	Max. 105°C (221°F) 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.
-  Only AZ941-1CT unsealed version is VDE approved at 5A, 250 VAC.

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## RELAY ORDERING DATA

STANDARD RELAYS: Light Duty Type (3 Amp Contact)					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	Unsealed	Sealed
5	8.9	70	4.0	AZ941-1C-5D	AZ941-1C-5DE
6	10.6	100	4.8	AZ941-1C-6D	AZ941-1C-6DE
12	21.2	400	9.6	AZ941-1C-12D	AZ941-1C-12DE
24	42.5	1,600	19.2	AZ941-1C-24D	AZ941-1C-24DE
48	85.0	6,400	38.4	AZ941-1C-48D	AZ941-1C-48DE

STANDARD RELAYS: Medium Duty Type (5 Amp Contact)					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	Unsealed	Sealed
5	8.9	70	4.0	AZ941-1CH-5D	AZ941-1CH-5DE
6	10.6	100	4.8	AZ941-1CH-6D	AZ941-1CH-6DE
12	21.2	400	9.6	AZ941-1CH-12D	AZ941-1CH-12DE
24	42.5	1,600	19.2	AZ941-1CH-24D	AZ941-1CH-24DE
48	85.0	6,400	38.4	AZ941-1CH-48D	AZ941-1CH-48DE

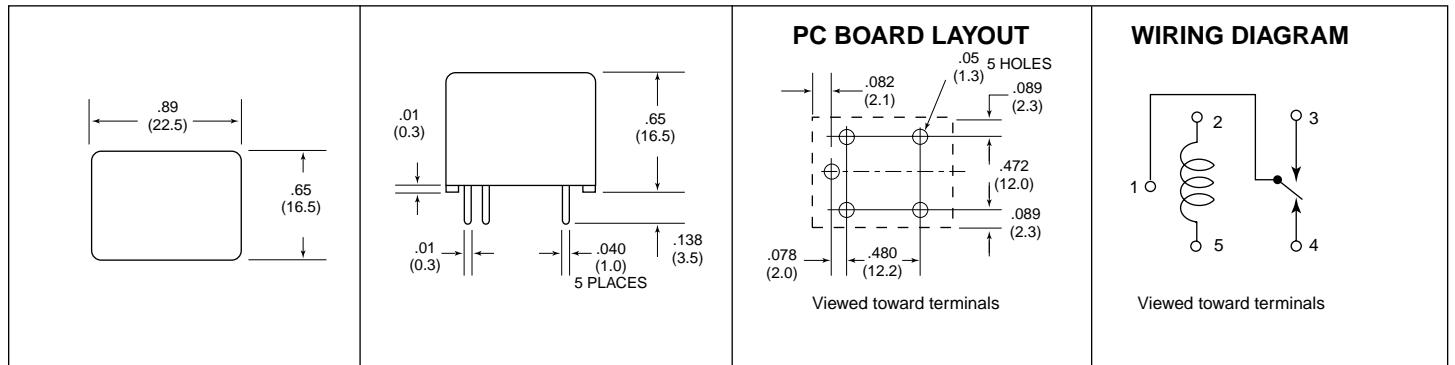
STANDARD RELAYS: Heavy Duty Type (12 Amp Contact)					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	Unsealed	Sealed
5	8.9	70	4.0	AZ941-1CT-5D	AZ941-1CT-5DE
6	10.6	100	4.8	AZ941-1CT-6D	AZ941-1CT-6DE
12	21.2	400	9.6	AZ941-1CT-12D	AZ941-1CT-12DE
24	42.5	1,600	19.2	AZ941-1CT-24D	AZ941-1CT-24DE
48	85.0	6,400	38.4	AZ941-1CT-48D	AZ941-1CT-48DE

STANDARD RELAYS: Extra Heavy Duty Type (16 Amp Contact)					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	Unsealed	Sealed
5	8.9	70	4.0	AZ941-1CW-5DB	AZ941-1CW-5DEB
6	10.6	100	4.8	AZ941-1CW-6DB	AZ941-1CW-6DEB
12	21.2	400	9.6	AZ941-1CW-12DB	AZ941-1CW-12DEB
24	42.5	1,600	19.2	AZ941-1CW-24DB	AZ941-1CW-24DEB
48	85.0	6,400	38.4	AZ941-1CW-48DB	AZ941-1CW-48DEB

\* Add suffix "F" in place of "B" to indicate class F.

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm 0.010$ "

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