

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

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

COIL

Power	
At Pickup Voltage (typical)	230 mW
Max Continuous Dissipation	1.1 W 20°C (68°F) ambient .86 W 40°C (104°F) ambient
Temperature Rise	27°C (49°F) nominal coil voltage
Temperature	Max. 105°C (221°F) Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

GENERAL DATA

Life Expectancy	Minimum operations
Mechanical	1x10 ⁷
Electrical	1 x 10 ⁵ at 12 A 120 VAC Res.
Operate Time (typical)	6 ms at nominal coil voltage
Release Time (typical)	2 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	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
Insulation Resistance	100 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature	At nominal coil voltage
Operating	-40°C (-40°F) to 70°C (158°F)
Storage	-40°C (-40°F) to 105°C (221°F)
Vibration	0.062" (1.5 mm) DA at 10–55Hz
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	13 grams

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.
5. 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

		PC BOARD LAYOUT	WIRING DIAGRAM
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Dimensions in inches with metric equivalents in parentheses. Tolerance: ± 0.010 "