

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 versions available
- UL, CUR file E44211; VDE 10056 
- Class B and 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: 6 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 5 A at 30 VDC 6 A at 125 VAC 1/10 HP @ 125 VAC
Heavy Duty	Max. switched power: 300 W or 2500 VA Max. switched current: 16 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 5 A at 30 VDC 16 A at 125 VAC 10 A at 277 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	1.4 W 20°C (68°F) ambient, standard 1.7 W 20°C (68°F) ambient, Class B
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 Mechanical Electrical	Minimum operations 1x10 ⁷ 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 Operating (Standard) Operating (Class B) Storage (Standard) Storage (Class B)	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 95°C (203°F) -40°C (-40°F) to 105°C (221°F) -40°C (-40°F) to 130°C (266°F)
Vibration	0.062" 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 version is VDE approved at 7A, 250 VAC.

AMERICAN ZETTLER, INC. www.azettler.com

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8/7/03W

AZ941

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	9.9	70	4.0	AZ941-1C-5D	AZ941-1C-5DE
6	11.8	100	4.8	AZ941-1C-6D	AZ941-1C-6DE
12	23.6	400	9.6	AZ941-1C-12D	AZ941-1C-12DE
24	47.3	1,600	19.2	AZ941-1C-24D	AZ941-1C-24DE
48	94.6	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	9.9	70	4.0	AZ941-1CH-5D	AZ941-1CH-5DE
6	11.8	100	4.8	AZ941-1CH-6D	AZ941-1CH-6DE
12	23.6	400	9.6	AZ941-1CH-12D	AZ941-1CH-12DE
24	47.3	1,600	19.2	AZ941-1CH-24D	AZ941-1CH-24DE
48	94.6	6,400	38.4	AZ941-1CH-48D	AZ941-1CH-48DE
STANDARD RELAYS: 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	9.9	70	4.0	AZ941-1CT-5D	AZ941-1CT-5DE
6	11.8	100	4.8	AZ941-1CT-6D	AZ941-1CT-6DE
9	17.7	225	7.2	AZ941-1CT-9D	AZ941-1CT-9DE
12	23.6	400	9.6	AZ941-1CT-12D	AZ941-1CT-12DE
24	47.3	1,600	19.2	AZ941-1CT-24D	AZ941-1CT-24DE
48	94.6	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	10.9	70	4.0	AZ941-1CW-5DB	AZ941-1CW-5DEB
6	13.0	100	4.8	AZ941-1CW-6DB	AZ941-1CW-6DEB
12	26.0	400	9.6	AZ941-1CW-12DB	AZ941-1CW-12DEB
24	52.1	1,600	19.2	AZ941-1CW-24DB	AZ941-1CW-24DEB
48	104.3	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 "

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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.