

AZ9481

16 AMP LOW PROFILE POWER RELAY

FEATURES

- High power switching (4000 VA)
- High sensitivity, 128 mW pickup
- Low profile (less than .5" height)
- SPST (1 Form A) and SPDT (1 Form C)
- UL Class F (155°C) standard
- Epoxy sealed versions available
- DC coils up to 48 VDC
- UL file E43203, TÜV R50053055



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 300 W, 2500 VA Max. switched current: 10 A Max. switched voltage: 250 VAC / 30 VDC Max. switch power: 300 W, 4000 VA Max. switch current: 16 A Max. switched voltage: 250 VAC / 30 VDC Max. switched power: 300 / 180 W, 2500 / 1500 VA (N.O./N.C.) Max. switched current: 10 / 6 A (N.O./N.C.) Max. switched voltages: 250 VAC / 30 VDC
Standard 1 Form A	
High Capacity 1 Form A	
1 Form C	
Rated Load UL	Standard 1 Form A 10 A at 250 VAC Res. 100k cycles [1][2] 10 A at 30 VDC Res. 100k cycles [1][2] TV-5 [1][2] High Capacity 1 Form A 16 A at 125 VAC Res. 100k cycles [1][2] 10 A at 30 VDC Res. 100k cycles [1][2] TV-5 [1][2] Standard 1 Form C 10 / 6 A (N.O./N.C.) at 250 VAC Res. 100k cycles[2] 10 / 6 A (N.O./N.C.) at 250 VAC Res. 30k/100k cycles [3]
TÜV	High Capacity 1 Form A 16 A at 250 VAC Res. 100k cycles [1][2] 8 A at 250 VAC cos phi = 0.4 100k cycles [1][2] 10 A at 30 VDC Res. 100k cycles [1][2]
Material	Silver cadmium oxide [1], silver tin oxide [2] or silver nickel [3]. Gold plated contacts available.
Resistance	< 100 milliohms initially (6 V, 1 A voltage drop method)

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ 10 A 250 VAC Res.
Operate Time (typical)	10 ms at nominal coil voltage
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	2500 Vrms coil to contact 1000 Vrms contact to contact
Insulation Resistance	100 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 155°C (333°F)
Vibration	0.062" DA at 10–55 Hz
Shock	10g operational, 100g destructive
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	8 grams

COIL

Power At Pickup Voltage (typical)	128 mW (Form A) 256 mW (Form C)
Max. Continuous Dissipation	1.34 W at 20°C (68°F)
Temperature Rise	24°C (43°F) at nominal coil voltage (Form C) 13°C (23°F) at nominal coil voltage (Form A)
Temperature	Max. 155°C (333°F)



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RELAY ORDERING DATA

COIL SPECIFICATIONS SPST-NO (1 Form A)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	AgCdO Contacts	AgSnO ₂ Contacts
5	4	13.4	125	AZ9481-1A-5D	AZ9481-1AE-5D
6	4.8	16.1	180	AZ9481-1A-6D	AZ9481-1AE-6D
9	7.2	24.1	405	AZ9481-1A-9D	AZ9481-1AE-9D
12	9.6	32.2	720	AZ9481-1A-12D	AZ9481-1AE-12D
18	14.4	48.3	1620	AZ9481-1A-18D	AZ9481-1AE-18D
24	19.2	64.4	2880	AZ9481-1A-24D	AZ9481-1AE-24D
48	38.4	128.8	11520	AZ9481-1A-48D	AZ9481-1AE-48D

*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts.

COIL SPECIFICATIONS SPST-NO (1 Form A) - HIGH CAPACITY				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	AgCdO Contacts	AgSnO ₂ Contacts
5	4	13.4	125	AZ9481-1AT-5D	AZ9481-1AET-5D
6	4.8	16.1	180	AZ9481-1AT-6D	AZ9481-1AET-6D
9	7.2	24.1	405	AZ9481-1AT-9D	AZ9481-1AET-9D
12	9.6	32.2	720	AZ9481-1AT-12D	AZ9481-1AET-12D
18	14.4	48.3	1620	AZ9481-1AT-18D	AZ9481-1AET-18D
24	19.2	64.4	2880	AZ9481-1AT-24D	AZ9481-1AET-24D
48	38.4	128.8	11520	AZ9481-1AT-48D	AZ9481-1AET-48D

*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts.

COIL SPECIFICATIONS SPDT (1 Form C)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	AgNi Contacts	AgSnO ₂ Contacts
5	4	9.5	63	AZ9481-1CB-5D	AZ9481-1CE-5D
6	4.8	11.4	90	AZ9481-1CB-6D	AZ9481-1CE-6D
9	7.2	17.1	203	AZ9481-1CB-9D	AZ9481-1CE-9D
12	9.6	22.8	360	AZ9481-1CB-12D	AZ9481-1CE-12D
18	14.4	34.2	810	AZ9481-1CB-18D	AZ9481-1CE-18D
24	19.2	45.5	1440	AZ9481-1CB-24D	AZ9481-1CE-24D
48	38.4	91.1	5760	AZ9481-1CB-48D	AZ9481-1CE-48D

*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts.



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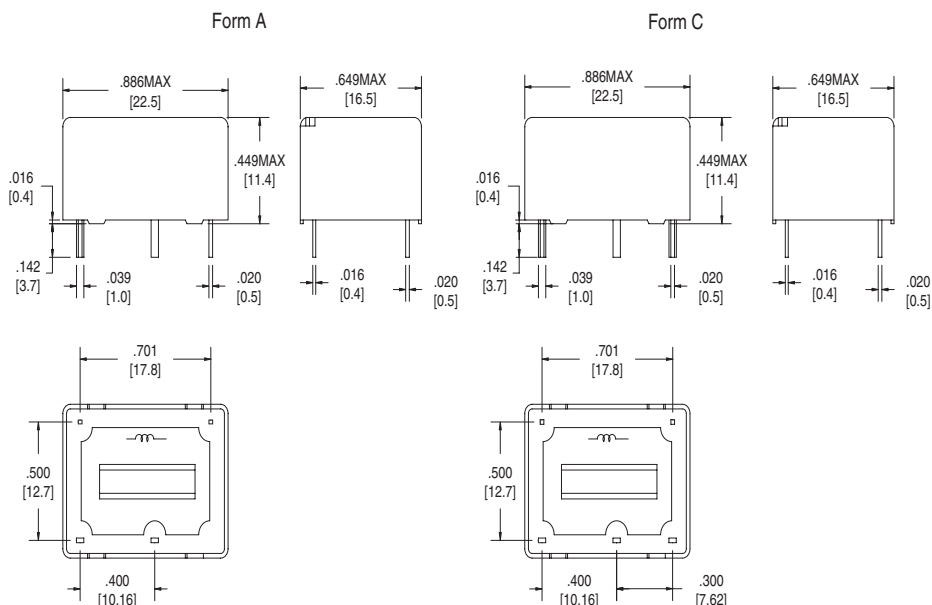
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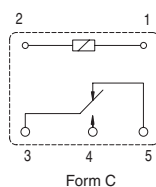
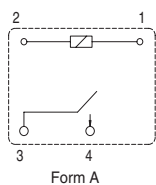
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MECHANICAL DATA

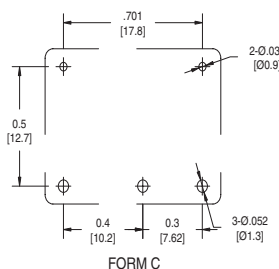
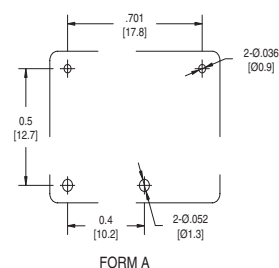
OUTLINE DIMENSIONS



WIRING DIAGRAM



PC BOARD LAYOUT



Dimensions in inch with millimeters in brackets below, Tolerance: ± 0.010 "



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