

AZ9481

16 AMP LOW PROFILE POWER RELAY

FEATURES

- High power switching (4000VA)
- High sensitivity, 128mW pickup
- Low profile (less than 0.5" height)
- SPST (1 Form A) and SPDT (1 Form C)
- UL Class F (155°C) standard
- Epoxy sealed versions available
- DC coils up to 48VDC
- UL file E43203, TÜV 50155384



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load:
Standard 1 Form A	Max. switched power: 300W, 2500VA Max. switched current: 10A Max. switched voltage: 250VAC / 30VDC
High Capacity 1 Form A	Max. switch power: 300W, 4000VA Max. switch current: 16A Max. switched voltage: 250VAC / 30VDC
1 Form C	Max. switched power: 300/180W, 2500/1500VA (N.O./N.C.) Max. switched current: 10/6A (N.O./N.C.) Max. switched voltages: 250VAC / 30VDC
Rated Load UL	Standard (1 Form A) 10A at 250 VAC Res. 100k cycles [1][2] 10A at 30 VDC Res. 100k cycles [1][2] TV-5 [1][2] High Capacity (1 Form A) 16A at 125VAC Res. 100k cycles [1][2] 10A at 30VDC Res. 100k cycles [1][2] TV-5 [1][2] Standard (1 Form C) 10/6A (N.O./N.C.) at 250VAC Res. 100k cycles[2]
TÜV	High Capacity (1 Form A) 16A at 250VAC Res. 50k cycles [1][2] 8A at 250VAC cos phi = 0.4 50k cycles [1][2] 10A at 30VDC Res. 50k cycles [1][2]
Material Resistance	Silver cadmium oxide [1], silver tin oxide [2]
	< 100 milliohms initially (6V, 1A 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 at 10A, 250VAC Res.
Operate Time (typical)	10ms at nominal coil voltage
Release Time (typical)	5ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	2500Vrms coil to contact 1000Vrms contact to contact
Insulation Resistance	100 megohms min. at 20°C, 500VDC, 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 (approx.)	8 grams

COIL

Power At Pickup Voltage (typical)	128mW (Form A) 256mW (Form C)
Max. Continuous Dissipation	1.34W 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 Ohms \pm 10%	AgCdO Contacts	AgSnO ₂ Contacts
5	4	7.5	125	AZ9481-1A-5D	AZ9481-1AE-5D
6	4.8	9.0	180	AZ9481-1A-6D	AZ9481-1AE-6D
9	7.2	13.5	405	AZ9481-1A-9D	AZ9481-1AE-9D
12	9.6	18.0	720	AZ9481-1A-12D	AZ9481-1AE-12D
18	14.4	27.0	1620	AZ9481-1A-18D	AZ9481-1AE-18D
24	19.2	36.0	2880	AZ9481-1A-24D	AZ9481-1AE-24D
48	38.4	72.0	11520	AZ9481-1A-48D	AZ9481-1AE-48D

*Add suffix "E" for epoxy sealed version.

COIL SPECIFICATIONS SPST-NO (1 Form A) - HIGH CAPACITY				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohms \pm 10%	AgCdO Contacts	AgSnO ₂ Contacts
5	4	7.5	125	AZ9481-1AT-5D	AZ9481-1AET-5D
6	4.8	9.0	180	AZ9481-1AT-6D	AZ9481-1AET-6D
9	7.2	13.5	405	AZ9481-1AT-9D	AZ9481-1AET-9D
12	9.6	18.0	720	AZ9481-1AT-12D	AZ9481-1AET-12D
18	14.4	27.0	1620	AZ9481-1AT-18D	AZ9481-1AET-18D
24	19.2	36.0	2880	AZ9481-1AT-24D	AZ9481-1AET-24D
48	38.4	72.0	11520	AZ9481-1AT-48D	AZ9481-1AET-48D

*Add suffix "E" for epoxy sealed version.

COIL SPECIFICATIONS SPDT (1 Form C)				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohms \pm 10%	AgSnO ₂ Contacts
5	4	6.5	63	AZ9481-1CE-5D
6	4.8	7.8	90	AZ9481-1CE-6D
9	7.2	11.7	203	AZ9481-1CE-9D
12	9.6	15.6	360	AZ9481-1CE-12D
18	14.4	23.4	810	AZ9481-1CE-18D
24	19.2	31.2	1440	AZ9481-1CE-24D
48	38.4	62.4	5760	AZ9481-1CE-48D

*Add suffix "E" for epoxy sealed version.

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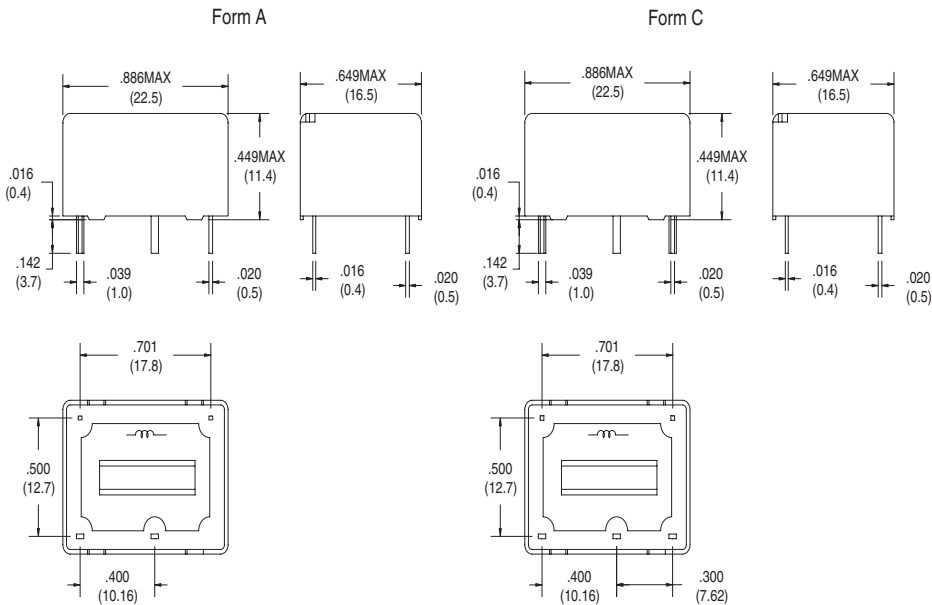
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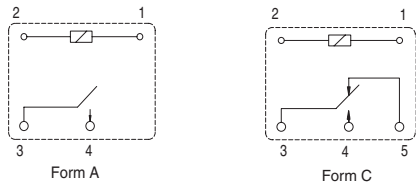
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MECHANICAL DATA

OUTLINE DIMENSIONS

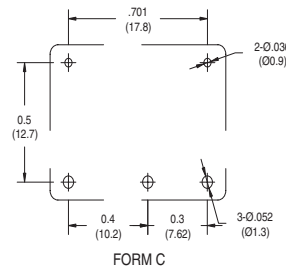
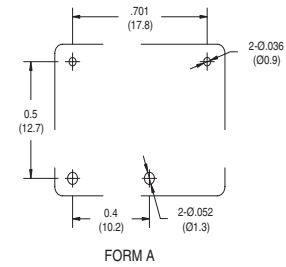


WIRING DIAGRAM



View Toward Terminals

PC BOARD LAYOUT



View Toward Terminals

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