

AZ9481

16 AMP LOW PROFILE POWER RELAY

FEATURES

- High power switching (4000 VA)
- High sensitivity, 128 mW / 256 mW pickup
- Low profile (less than 11.4 mm height)
- SPST (1 Form A) and SPDT (1 Form C)
- UL Class F (155°C) standard
- Epoxy sealed version available
- DC coils up to 48 VDC
- UL file E43203
- TÜV certificate 50155384



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Standard 1 Form A Max. switched power: 300 W or 2500 VA Max. switched current: 10 A Max. switched voltage: 30 VDC* or 250 VAC 1 Form C Max. switched power: 300 W or 2500 VA Max. switched current: 10 A Max. switched voltage: 30 VDC* or 250 VAC Heavy Duty 1 Form A Max. switched power: 300 W or 4000 VA Max. switched current: 16 A Max. switched voltage: 30 VDC* or 250 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL	Standard, 1 Form A 10 A at 250 VAC, resistive, 100k cycles [1][2] 10 A at 30 VDC, resistive, 100k cycles [1][2] TV-5 [1] Standard, 1 Form C 10 A at 250 VAC, resistive, 100k cycles (N.O.) [2] 10 A at 250 VAC, resistive, 30k cycles (N.O.) [3] 6 A at 250 VAC, resistive, 100k cycles (N.C.) [2][3]
TÜV	Heavy Duty, 1 Form A 16 A at 125 VAC, resistive, 100K cycles [1][2] 10 A at 250 VAC, resistive, 100K cycles [1][2] 10 A at 30 VDC, resistive, 100k cycles [1][2] 0.3 A at 110 VDC, resistive, 50k cycles [1][2] TV-5 [1] Heavy Duty, 1 Form A 16 A at 250 VAC, resistive, 50k cycles [1][2] 8 A at 250 VAC, cos phi 0.4, 50k cycles [1][2] 10 A at 30 VDC, resistive, 50k cycles [1][2]
Material	Silver cadmium oxide [1], silver tin oxide [2], silver nickel [3], gold plating available
Resistance	< 100 milliohms initially

GENERAL DATA

Life Expectancy	Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 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 between open contacts
Insulation Resistance	100 megaohms at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating	At nominal coil voltage 1 Form A: -40°C (-40°F) to 85°C (185°F) 1 Form C: -40°C (-40°F) to 70°C (158°F)
Vibration	0.062" (1.5 mm) DA at 10-55 Hz
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	8 grams

COIL

Power	
At Pickup Voltage (typical)	128 mW (1 Form A) 256 mW (1 Form C)
Max. Continuous Dissipation	1.34 W at 20°C (68°F) ambient
Temperature Rise	13°C (23°F) at nominal coil voltage (1 Form A) 24°C (43°F) at nominal coil voltage (1 Form C)
Temperature	Max. 155°C (333°F)

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.

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This product specification to be used only together with the application notes
which can be downloaded from <http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf>

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RELAY ORDERING DATA

COIL SPECIFICATIONS SPST-NO (1 Form A)				
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm$ 10%	ORDER NUMBER*
5	4.0	12.9	125	AZ9481-1A-5D
6	4.8	15.5	180	AZ9481-1A-6D
9	7.2	23.3	405	AZ9481-1A-9D
12	9.6	31.0	720	AZ9481-1A-12D
18	14.4	46.6	1,620	AZ9481-1A-18D
24	19.2	62.0	2,880	AZ9481-1A-24D
48	38.4	124.0	11,520	AZ9481-1A-48D

* "1A" denote silver cadmium oxide contacts.

Substitute "1AE" in place of "1A" for silver tin oxide contacts.

Add suffix "T" after "1A" or "1AE" for heavy duty version.

Add suffix "E" at the end of order number for sealed version.

Add suffix "A" at the end of order number for gold plated contacts.

COIL SPECIFICATIONS SPDT (1 Form C)				
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm$ 10%	ORDER NUMBER*
5	4.0	9.1	62.5	AZ9481-1CE-5D
6	4.8	11.0	90	AZ9481-1CE-6D
9	7.2	16.4	202.5	AZ9481-1CE-9D
12	9.6	21.9	360	AZ9481-1CE-12D
18	14.4	32.9	810	AZ9481-1CE-18D
24	19.2	43.9	1,440	AZ9481-1CE-24D
48	38.4	87.8	5,760	AZ9481-1CE-48D

* "1CE" denote silver tin oxide contacts.

Substitute "1CB" in place of "1CE" for silver nickel contacts.

Add suffix "E" at the end of order number for sealed version.

Add suffix "A" at the end of order number for gold plated contacts.

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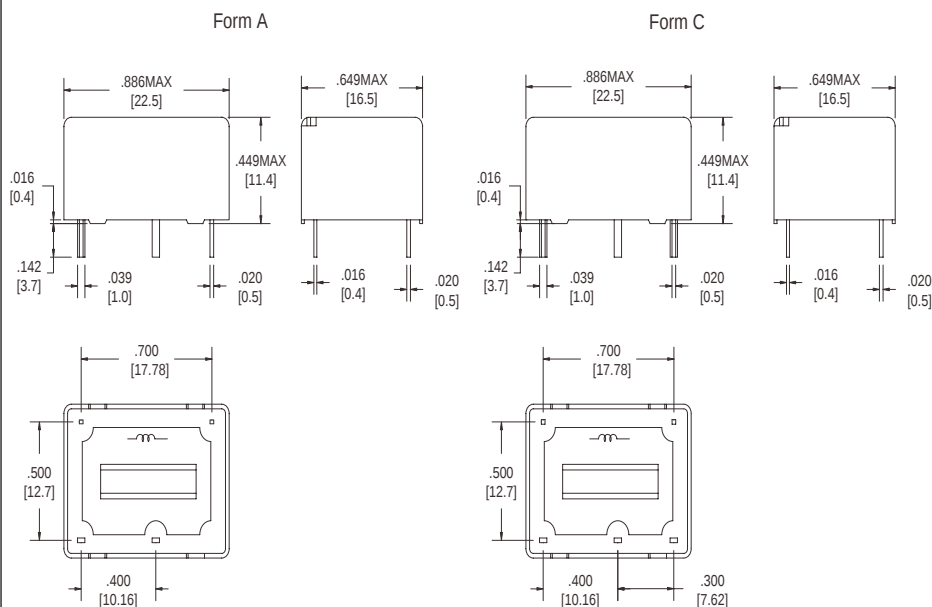
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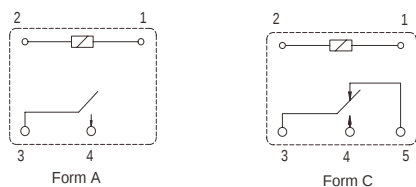
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MECHANICAL DATA

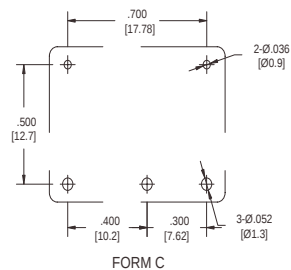
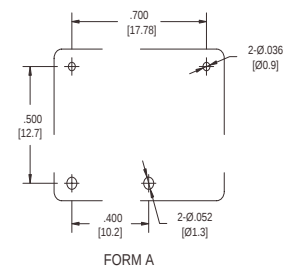
OUTLINE DIMENSIONS



WIRING DIAGRAM



PC BOARD LAYOUT



Dimensions in inches with metric equivalents in parentheses.

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