# 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:				
Standard 1 Form A	Max. switched power: 300 W, 2500 VA Max. switched current: 10 A Max. switched voltage: 250 VAC / 30 VDC				
High Capacity 1 Form A	Max. switch power: 300 W, 4000 VA Max. switch current: 16 A Max. switched voltage: 250 VAC / 30 VDC				
1 Form C	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				
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]				
ΤÜV	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					

- 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	Minimum operations			
Mechanical	1 x 10 <sup>7</sup>			
Electrical	1 x 10⁵ 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	2500 Vrms coil to contact			
(at sea level for 1 min.)	1000 Vrms contact to contact			
Insulation	100 megohms min. at 20°C, 500 VDC,			
Resistance	50% RH			
Dropout	Greater than 10% of nominal coil voltage			
Ambient Temperature	At nominal call voltage			
Operating	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)			
Storage	-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) Max. Continuous Dissipation	128 mW (Form A) 256 mW (Form C) 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 ±10%	AgCdO Contacts	AgSnO <sub>2</sub> 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 ±10%	AgCdO Contacts	AgSnO <sub>2</sub> 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 ±10%	AgNi Contacts	AgSnO <sub>2</sub> 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	

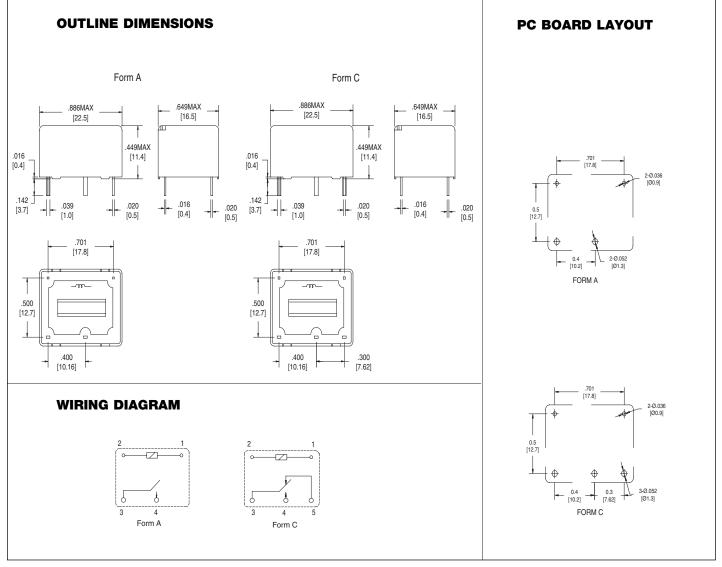
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#### **MECHANICAL DATA**



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





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