

AZ881

8 A SPST / 5 A DPST POLARIZED SUBMINIATURE POWER RELAY SINGLE SIDE STABLE (NON-LATCHING) AND BISTABLE (LATCHING)



FEATURES

- Dielectric strength 3000 Vrms
- Single and dual coil latching versions available
- Epoxy sealed version available
- 8 Amp switching
- Class B (130°C) insulation standard
- Class F (155°C) insulation available
- UL, CUR file E44211

CONTACTS

Arrangement	SPST (1 Form A), DPST (2 Form A) DPST (1 Form A and 1 Form B)
Ratings	Resistive load: Max. switched power: 150 W or 2000 VA (SPST) 150 W or 1250 VA (DPST) Max. switched current: 8 A (SPST) 5 A (DPST) Max. switched voltage: 150 VDC or 380 VAC* *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	SPST 8 A at 250 VAC resistive, 100k cycles 5 A at 30 VDC resistive, 100k cycles 1/6 HP at 250 VAC DPST 5 A at 250 VAC resistive, 100k cycles 5 A at 30 VDC resistive, 100k cycles 1/6 HP at 250 VAC
Material	Silver nickel, gold plating optional
Resistance	< 50 milliohms initially (6 V 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	192 mW (single side stable, 2 coil latching) 96 mW (1 coil latching)
Max. Continuous Dissipation	0.75 W at 20°C (68°F) ambient
Temperature Rise	30°C (54°F) at nominal coil voltage
Max. Temperature	130°C (266°F) Class B, 155°C (311°F) Class F

GENERAL DATA

Life Expectancy	Minimum operations Mechanical 1 x 10 ⁷ Electrical 1 x 10 ⁵ at 8 A 250 VAC resistive (SPST)
Operate Time (typical)	5 ms at nominal coil voltage
Release Time (typical)	3 ms at nominal coil voltage (with no coil suppression)
Set Time (typical)	5 ms at nominal coil voltage
Reset Time (typical)	4 ms at nominal coil voltage
Dielectric Strength (at sea level) 1 min.	3000 Vrms contact to coil 1000 Vrms between open contacts 2000 Vrms between contact sets
Insulation Resistance	1000 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 70°C (158°F) -40°C (-40°F) to 130°C (266°F)
Vibration	0.078" DA at 10 to 55 Hz
Shock	20 g functional 100 g 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	4.7 grams

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Relay has fixed coil polarity.
4. For complete isolation between the relay's magnetic fields, it is recommended that a .197" (5.0 mm) space be provided between adjacent relays.
5. Relay adjustment may be affected if undue pressure is exerted on relay case.
6. Specifications subject to change without notice.

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RELAY ORDERING DATA

AZ881

COIL SPECIFICATIONS - SINGLE SIDE STABLE				ORDER NUMBER*		
Nominal Coil VDC	Must. Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	1 Form A	2 Form A	1 Form A 1 Form B
3	2.4	4.7	30	AZ881-1A-3D	AZ881-2A-3D	AZ881-1AB-3D
5	4.0	7.9	83	AZ881-1A-5D	AZ881-2A-5D	AZ881-1AB-5D
6	4.8	9.6	120	AZ881-1A-6D	AZ881-2A-6D	AZ881-1AB-6D
9	7.2	14.4	270	AZ881-1A-9D	AZ881-2A-9D	AZ881-1AB-9D
12	9.6	19.2	480	AZ881-1A-12D	AZ881-2A-12D	AZ881-1AB-12D
24	19.2	37.9	1920	AZ881-1A-24D	AZ881-2A-24D	AZ881-1AB-24D

*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix "F" for class F insulation.

AZ881P1

COIL SPECIFICATIONS - SINGLE COIL LATCHING				ORDER NUMBER*		
Nominal Coil VDC	Must. Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	1 Form A	2 Form A	1 Form A 1 Form B
3	2.4	6.7	60	AZ881P1-1A-3D	AZ881P1-2A-3D	AZ881P1-1AB-3D
5	4.0	11.2	167	AZ881P1-1A-5D	AZ881P1-2A-5D	AZ881P1-1AB-5D
6	4.8	13.4	240	AZ881P1-1A-6D	AZ881P1-2A-6D	AZ881P1-1AB-6D
9	7.2	20.1	540	AZ881P1-1A-9D	AZ881P1-2A-9D	AZ881P1-1AB-9D
12	9.6	26.8	960	AZ881P1-1A-12D	AZ881P1-2A-12D	AZ881P1-1AB-12D

*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix "F" for class F insulation.

AZ881P2

COIL SPECIFICATIONS - DUAL COIL LATCHING				ORDER NUMBER*		
Nominal Coil VDC	Must. Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	1 Form A	2 Form A	1 Form A 1 Form B
3	2.4	4.7	30	AZ881P2-1A-3D	AZ881P2-2A-3D	AZ881P2-1AB-3D
5	4.0	7.9	83	AZ881P2-1A-5D	AZ881P2-2A-5D	AZ881P2-1AB-5D
6	4.8	9.5	120	AZ881P2-1A-6D	AZ881P2-2A-6D	AZ881P2-1AB-6D
9	7.2	14.2	270	AZ881P2-1A-9D	AZ881P2-2A-9D	AZ881P2-1AB-9D
12	9.6	19.0	480	AZ881P2-1A-12D	AZ881P2-2A-12D	AZ881P2-1AB-12D
24	19.2	37.9	1920	AZ881P2-1A-24D	AZ881P2-2A-24D	AZ881P2-1AB-24D

*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix "F" for class F insulation.

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10/30/09

MECHANICAL DATA

Outline Dimensions

Single side stable & 1 coil latching

2 coil latching

PC Board Layout

Single side stable & 1 coil latching

Viewed Toward Terminals

Wiring Diagram

Single side stable (Deenergized condition)

1 coil latching (Reset condition)

2 coil latching (Reset condition)

Viewed Toward Terminals

Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm 0.010"$

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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.