

# 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

<b>Arrangement</b>	SPST (1 Form A), DPST (2 Form A) DPST (1 Form A and 1 Form B)
<b>Ratings</b>	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.
<b>Rated Load UL, CUR</b>	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
<b>Material</b>	Silver nickel, gold plating optional
<b>Resistance</b>	< 50 milliohms initially (6 V 1 A voltage drop method)

### COIL

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

### GENERAL DATA

<b>Life Expectancy</b> Mechanical Electrical	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 8 A 250 VAC resistive (SPST)
<b>Operate Time (typical)</b>	5 ms at nominal coil voltage
<b>Release Time (typical)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Set Time (typical)</b>	5 ms at nominal coil voltage
<b>Reset Time (typical)</b>	4 ms at nominal coil voltage
<b>Dielectric Strength (at sea level) 1 min.</b>	3000 Vrms contact to coil 1000 Vrms between open contacts 2000 Vrms between contact sets
<b>Insulation Resistance</b>	1000 megohms min. at 20°C 500 Vdc 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -40°C (-40°F) to 70°C (158°F) -40°C (-40°F) to 130°C (266°F)
<b>Vibration</b>	0.078" DA at 10 to 55 Hz
<b>Shock</b>	20 g functional 100 g destructive
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	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.

**AMERICAN ZETTLER, INC.**[www.azettler.com](http://www.azettler.com)

75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

# AZ881

## RELAY ORDERING DATA

### AZ881

COIL SPECIFICATIONS - SINGLE SIDE STABLE				ORDER NUMBER*		
Nominal Coil VDC	Must. Operate VDC	Max. Continuous VDC	Coil Resistance ± 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 ± 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 ± 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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## MECHANICAL DATA

**Outline Dimensions**

Single side stable & 1 coil latching

2 coil latching

**PC Board Layout**

Single side stable & 1 coil latching

-1 A      -1 AB

2 coil latching

-1 A      -2 A, -1 AB

Viewed Toward Terminals

**Wiring Diagram**

Single side stable (Deenergized condition)

-1 A      -2 A      -1 AB

1 coil latching (Reset condition)

-1 A      -2 A      -1 AB

2 coil latching (Reset condition)

-1 A      -2 A      -1 AB

Viewed Toward Terminals

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



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