

# AZ880

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



### FEATURES

- Dielectric strength 4000 Vrms
- Single and dual coil latching versions available
- Epoxy sealed version available
- 10 Amp switching
- 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: 300 W or 2500 VA (SPST) 240 W or 2000 VA (DPST) Max. switched current: 10 A (SPST) 8 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 10 A at 250 VAC general use, 30k cycles 8 A at 30 VDC resistive, 30k cycles 1/3 HP at 250 VAC B300 Pilot Duty  DPST 8 A at 250 VAC general use, 30k cycles 8 A at 30 VDC resistive, 30k cycles 1/3 HP at 250 VAC 1/4 HP at 125 VAC
<b>Material</b>	Silver nickel, silver tin oxide, gold plating optional
<b>Resistance</b>	< 50 milliohms initially (6 V 1 A voltage drop method)

### COIL

<b>Power At Pickup Voltage (typical)</b>	137 mW ( 2A single side stable, 2 coil latching)  98 mW (1 coil latching or 1A or 1AB single side stable)
<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>	105°C (221°F)

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>6</sup> at 10 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)</b>	4000 Vrms coil to contact (-1A, -1AB) 3000 Vrms coil to contact (-2A) 1000 Vrms between 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 105°C (221°F)
<b>Vibration</b>	0.062" DA at 10 to 55 Hz
<b>Shock</b>	10 g functional
<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>	6 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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12/07/09

# AZ880

## RELAY ORDERING DATA

### AZ880

COIL SPECIFICATIONS - 1 FORM A AND 1 FORM A/1 FORM B				ORDER NUMBER*	
Nominal Coil VDC	Must. Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	1 Form A	1 Form A 1 Form B
3	2.1	5.8	45	AZ880-1A-3D	AZ880-1AB-3D
5	3.5	9.7	125	AZ880-1A-5D	AZ880-1AB-5D
6	4.2	11.6	180	AZ880-1A-6D	AZ880-1AB-6D
9	6.3	17.4	405	AZ880-1A-9D	AZ880-1AB-9D
12	8.4	23.2	720	AZ880-1A-12D	AZ880-1AB-12D
24	16.8	46.5	2880	AZ880-1A-24D	AZ880-1AB-24D

\*Add "E" after "1A" or "1AB" for Silver Tin Oxide contacts. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix "E" for epoxy sealed version.

### AZ880

COIL SPECIFICATIONS - 2 FORM A				ORDER NUMBER*
Nominal Coil VDC	Must. Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	2 Form A
3	2.1	4.9	32.1	AZ880-2A-3D
5	3.5	8.2	89.3	AZ880-2A-5D
6	4.2	9.8	129	AZ880-2A-6D
9	6.3	14.7	289	AZ880-2A-9D
12	8.4	19.6	514	AZ880-2A-12D
24	16.8	39.3	2056	AZ880-2A-24D

\*Add "E" after "2A" for Silver Tin Oxide contacts. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix "E" for epoxy sealed version.

### AZ880P1

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	2.1	5.8	45	AZ880P1-1A-3D	AZ880P1-2A-3D	AZ880P1-1AB-3D
5	3.5	9.7	125	AZ880P1-1A-5D	AZ880P1-2A-5D	AZ880P1-1AB-5D
6	4.2	11.6	180	AZ880P1-1A-6D	AZ880P1-2A-6D	AZ880P1-1AB-6D
9	6.3	17.4	405	AZ880P1-1A-9D	AZ880P1-2A-9D	AZ880P1-1AB-9D
12	8.4	23.2	720	AZ880P1-1A-12D	AZ880P1-2A-12D	AZ880P1-1AB-12D
24	16.8	46.5	2880	AZ880P1-1A-24D	AZ880P1-2A-24D	AZ880P1-1AB-24D

\*Add "E" after "1A" or "2A" or "1AB" for Silver Tin Oxide contacts. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix "E" for epoxy sealed version.

### AZ880P2

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	2.1	4.9	32.1	AZ880P2-1A-3D	AZ880P2-2A-3D	AZ880P2-1AB-3D
5	3.5	8.2	89.3	AZ880P2-1A-5D	AZ880P2-2A-5D	AZ880P2-1AB-5D
6	4.2	9.8	129	AZ880P2-1A-6D	AZ880P2-2A-6D	AZ880P2-1AB-6D
9	6.3	14.7	289	AZ880P2-1A-9D	AZ880P2-2A-9D	AZ880P2-1AB-9D
12	8.4	19.6	514	AZ880P2-1A-12D	AZ880P2-2A-12D	AZ880P2-1AB-12D
24	16.8	39.3	2056	AZ880P2-1A-24D	AZ880P2-2A-24D	AZ880P2-1AB-24D

\*Add "E" after "1A" or "2A" or "1AB" for Silver Tin Oxide contacts. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix "E" for epoxy sealed version.



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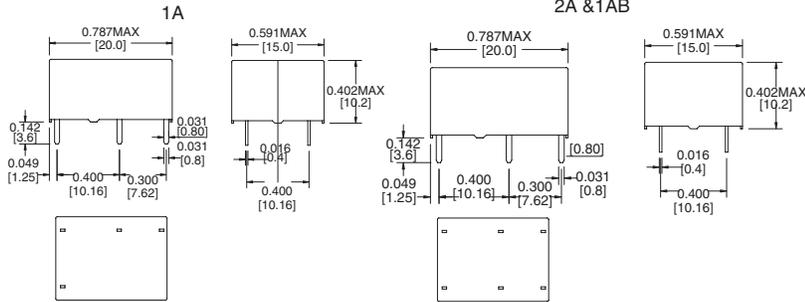
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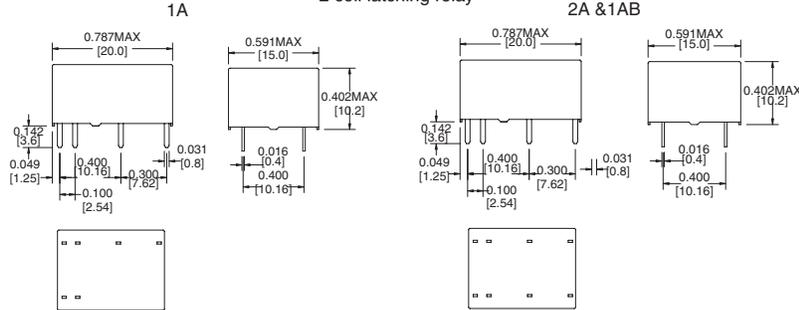
## MECHANICAL DATA

### Outline Dimensions

Single side stable or 1 coil latching relay

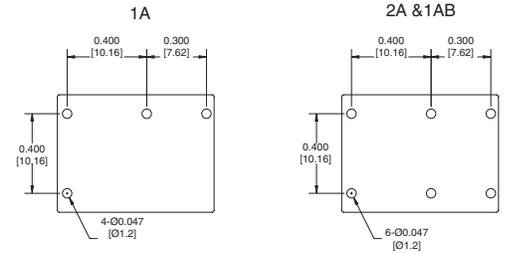


2 coil latching relay

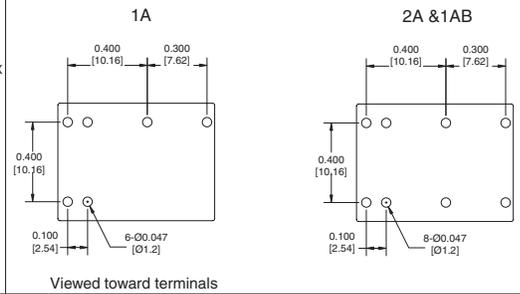


### PC Board Layout

Single side stable or 1 coil latching relay



2 coil latching relay



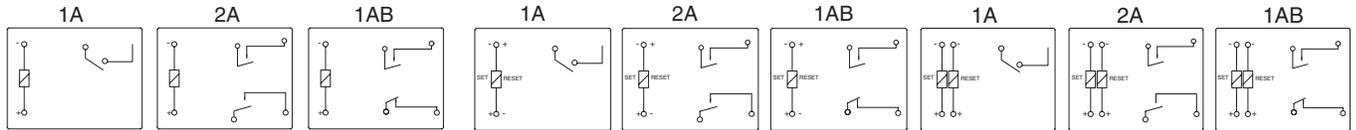
Viewed toward terminals

### Wiring Diagram

Single side stable

1 coil latching relay

2 coil latching relay



Viewed toward terminals. Relays shown in de-energized or reset state.

Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010''$



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