AZ880

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

FEATURES

• Dielectric strength 4000Vrms
• Single and dual coil latching versions available
• Epoxy sealed version available
• 10 Amp switching
• 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: 300W or 2500VA (SPST) 240W or 2000VA (DPST) Max. switched current: 10A (SPST) 8A (DPST) Max. switched voltage: 150VDC* or 277VAC *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	SPST 10 A at 250 VAC general use, 30k cycles 10 A at 30 VDC general use, 30k cycles (Silver Tin Only) 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
Material	Silver nickel, silver tin oxide, gold plating optional
Resistance	< 80 milliohms initially (6V, 1A voltage drop method)

COIL

Power		
At Pickup Voltage	137 mW (2A single side stable, 2 coil latching)	
(typical)	98 mW (1 coil latching or 1A or 1AB single side stable)	
Max. Continuous Dissipation	0.75 W at 20°C (68°F) ambient	
Temperature Rise	50°C (122°F) at nominal coil voltage	
Max. Temperature	105°C (221°F)	

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1×10^7 1×10^5 at 10A, 250VAC resistive (SPST) 3×10^4 at 8A, 250VAC (DPST)
Operate Time (typical)	5ms at nominal coil voltage
Release Time (typical)	3ms at nominal coil voltage (with no coil suppression)
Set Time (typical)	5ms at nominal coil voltage
Reset Time (typical)	4ms at nominal coil voltage
Dielectric Strength (at sea level)	4000 Vrms coil to contact (-1A, -1AB) 3000 Vrms coil to contact (-2A) 1000 Vrms between open contacts
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 105°C (221°F)
Vibration	0.062" DA at 10 to 55 Hz
Shock	10 g functional
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	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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RELAY ORDERING DATA

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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 ± 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.

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COIL SPECIFICATIONS - 2 FORM A				ORDER NUMBER*
Nominal Coil VDC	Must. Operate VDC	Max. Continuous VDC	Coil Resistance ± 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.

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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	2.1	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.

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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	2.1	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.
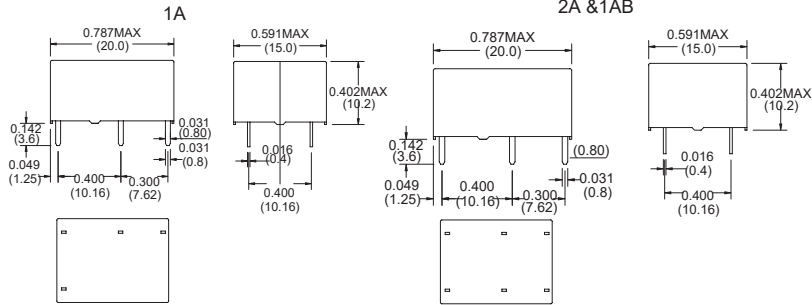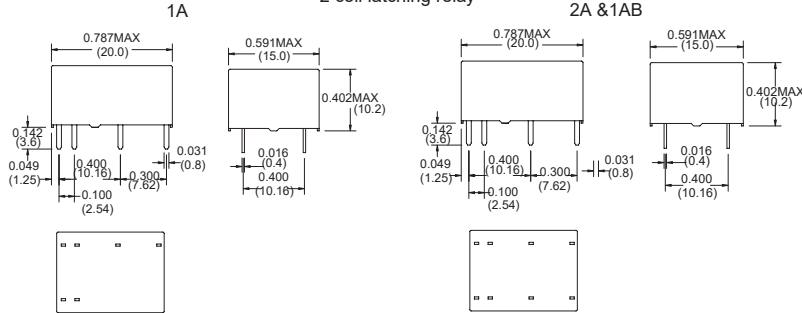
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MECHANICAL DATA

Outline Dimensions
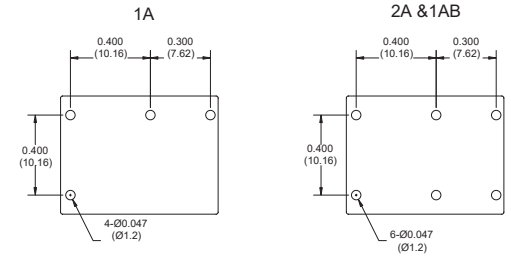
Single side stable or 1 coil latching relay

1A

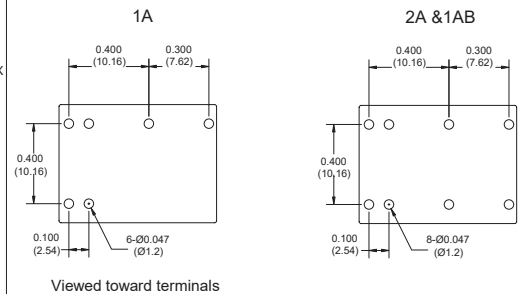0.787MAX (20.0)
0.591MAX (15.0)
0.402MAX (10.2)
0.142 (3.6)
0.031 (0.80)
0.031 (0.8)
0.049 (1.25)
0.016 (0.4)
0.400 (10.16)
0.300 (7.62)
0.400 (10.16)

2A &1AB

0.787MAX (20.0)
0.591MAX (15.0)
0.402MAX (10.2)
0.142 (3.6)
0.049 (1.25)
0.016 (0.4)
0.400 (10.16)
0.300 (7.62)
0.031 (0.8)
0.400 (10.16)

2 coil latching relay

1A

0.787MAX (20.0)
0.591MAX (15.0)
0.402MAX (10.2)
0.142 (3.6)
0.049 (1.25)
0.031 (0.8)
0.016 (0.4)
0.400 (10.16)
0.300 (7.62)
0.100 (2.54)
0.400 (10.16)

2A &1AB

0.787MAX (20.0)
0.591MAX (15.0)
0.402MAX (10.2)
0.142 (3.6)
0.049 (1.25)
0.016 (0.4)
0.400 (10.16)
0.300 (7.62)
0.031 (0.8)
0.100 (2.54)
0.400 (10.16)

PC Board Layout

Single side stable or 1 coil latching relay

1A

0.400 (10.16)
0.300 (7.62)
0.400 (10,16)
4-Ø0.047 (Ø1.2)

2A &1AB

0.400 (10.16)
0.300 (7.62)
0.400 (10.16)
6-Ø0.047 (Ø1.2)

2 coil latching relay

1A

0.400 (10.16)
0.300 (7.62)
0.400 (10.16)
0.100 (2.54)
6-Ø0.047 (Ø1.2)

2A &1AB

0.400 (10.16)
0.300 (7.62)
0.400 (10,16)
0.100 (2.54)
8-Ø0.047 (Ø1.2)

Viewed toward terminals

Wiring Diagram

Single side stable

1A **2A** **1AB**

1 coil latching relay

1A **2A** **1AB**

2 coil latching relay

1A **2A** **1AB**
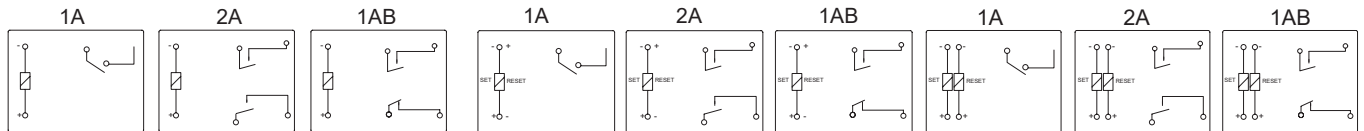
Viewed toward terminals. Relays shown in de-energized or reset state.

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

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