

AZ6961

10 AMP SUBMINIATURE POWER RELAY

FEATURES

- High sensitivity, 120 mW pickup
- Dielectric strength 5000 Vrms
- Isolation spacing greater than 8 mm
- 10 Amp switching capability
- Class B insulation standard, Class F version available
- Epoxy sealed version for automatic wave soldering and cleaning available
- UL, CUR file E44211
- VDE 131637ÜG



CONTACTS

Arrangement	SPDT (1 Form C) SPST (1 Form A)
Ratings	Resistive load: Max. switched power: 240 W or 2500 VA Max. switched current: 10 A Max. switched voltage: 240* VDC or 440 VAC UL, CUR Rating: 10 A at 250 VAC resistive [1] 8 A at 30 VDC/250 VAC [1] 8 A at 30 VDC/250 VAC, 100k cycles [2] B300 Pilot Duty [1] R300 Pilot Duty [1] 1/4 HP at 125 VAC [1] 1/2 HP at 250 VAC [1] VDE Rating: 8 A at 250 VAC <i>*Note: if switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.</i>
Material	Silver cadmium oxide (AgCdO) [1] Silver tin oxide (AgSnO ₂) [2] Gold plating available
Resistance	< 100 milliohms initially

COIL

Power	
At Pickup Voltage (typical)	120 mW
Max. Continuous Dissipation	1.2 W at 20°C (68°F) ambient
Temperature Rise	20°C (36°F) at nominal coil voltage
Temperature	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 10 million 3 X 10 ⁵ at 8 A 240 VAC res.
Operate Time (typical)	7 ms at nominal coil voltage
Release Time (typical)	3 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	5000 Vrms coil to contact 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 100°C (212°F) -40°C (-40°F) to 130°C (266°F) Class B -40°C (-40°F) to 155°C (311°F) Class F
Vibration	Break Contact: 5g at 10...500 Hz Make Contact: 20g at 10...500 Hz
Shock	10 g
Enclosure	P.B.T. polyester, UL94 V-0
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

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.
4. Class F version not VDE approved

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RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance	Must Operate VDC	1 Form A (SPST-NO)	1 Form C (SPDT)
5	11.6	113 ± 10%	3.5	AZ6961-1A-5D	AZ6961-1C-5D
6	14.0	164 ± 10%	4.2	AZ6961-1A-6D	AZ6961-1C-6D
12	27.2	617 ± 10%	8.4	AZ6961-1A-12D	AZ6961-1C-12D
24	53.1	2350 ± 10%	16.8	AZ6961-1A-24D	AZ6961-1C-24D
48	107.3	9600 ± 15%	33.6	AZ6961-1A-48D	AZ6961-1C-48D
60	122.4	12500 ± 15%	42.0	AZ6961-1A-60D	AZ6961-1C-60D

*Add "E" to "-1A" or "-1C" for AgSnO₂ contacts. Add suffix "E" for sealed version. Add suffix "A" for gold plated contacts. Add suffix "F" for Class F version.

MECHANICAL DATA

<p>FORM C VERSION</p> <p>Top view dimensions: 1.132 Max [28.75], .494 Max [12.55], .012 [0.3]. Side view dimensions: .408 Max [10.35], .142 [3.6]. Terminal view dimensions: 2x.020 [0.5], 3x.031 [0.8], 3x.016 [0.4].</p>	<p>PC BOARD LAYOUT</p> <p>FORM C dimensions: 5xØ.051 [Ø1.3], .870 [22.1], .062 [1.57], .298 [7.56], .126 [3.2], .126 [3.2], .050 [1.3]. FORM A dimensions: 4xØ.051 [Ø1.3], .744 [18.9], .116 [2.95], .298 [7.56], .198 [5.04], .050 [1.3].</p> <p>VIEWED TOWARD TERMINALS</p>
<p>FORM A VERSION</p> <p>Top view dimensions: 1.132 Max [28.75], .494 Max [12.55], .012 [0.3]. Side view dimensions: .408 Max [10.35], .142 [3.6]. Terminal view dimensions: 2x.020 [0.5], 2x.031 [0.8], 2x.016 [0.4].</p>	<p>CIRCUIT DIAGRAM</p> <p>FORM C: Terminal 1 is coil, terminal 2 is common, terminal 3 is normally closed, terminal 4 is normally open, terminal 5 is common. FORM A: Terminal 1 is coil, terminal 2 is common, terminal 4 is normally open, terminal 5 is common.</p> <p>VIEWED TOWARD TERMINALS</p>

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