

# AZ6961

## Discontinuation Notice

Discontinuation date:

31.12.2012

Date of last order:

30.06.2012

Recommended replacement:

AZ6962

## 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
- Epoxy sealed version available
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1)
- UL, CUR file E43203
- VDE file 131637



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C) SPST (1 Form A)
<b>Ratings</b>	Resistive load: Max. switched power: 240 W or 2500 VA Max. switched current: 10 A Max. switched voltage: 240 VDC* or 440 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>	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]
<b>VDE</b>	8 A at 250 VAC resistive, [1], [2] and [3] [1] Silver cadmium oxide, [2] Silver tin oxide, [3] Silver nickel
<b>Material</b>	Silver cadmium oxide, silver tin oxide or silver nickel, gold plating available
<b>Resistance</b>	< 100 milliohms initially

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 8 A 250 VAC res.
<b>Operate Time (typical)</b>	7 ms at nominal coil voltage
<b>Release Time (typical)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	5000 Vrms coil to contact 1000 Vrms between open contacts
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC, 50% RH
<b>Insulation (according to DIN VDE 0110, IEC 60664-1)</b>	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
<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 85°C (185°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	Break Contact: 5 g at 10 ...500 Hz Make Contact: 20 g at 10...500 Hz
<b>Shock</b>	10 g
<b>Enclosure</b>	P.B.T. polyester, UL94 V-O
<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>	8 grams
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	120 mW 140 mW (60 VDC coil)
<b>Max. Continuous Dissipation</b>	1.2 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	20°C (36°F) at nominal coil voltage
<b>Temperature</b>	Max. 130°C (266°F)

### 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.

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## RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm	1 Form A (SPST-NO)	1 Form C (SPDT)
5	3.5	11.6	113 ± 10%	AZ6961-1A-5D	AZ6961-1C-5D
6	4.2	14.0	164 ± 10%	AZ6961-1A-6D	AZ6961-1C-6D
9	6.3	21.1	360 ± 10%	AZ6961-1A-9D	AZ6961-1C-9D
12	8.4	27.2	617 ± 10%	AZ6961-1A-12D	AZ6961-1C-12D
15	10.5	38.0	800 ± 10%	AZ6961-1A-15D	AZ6961-1C-15D
24	16.8	53.1	2,350 ± 10%	AZ6961-1A-24D	AZ6961-1C-24D
48	33.6	107.3	9,600 ± 15%	AZ6961-1A-48D	AZ6961-1C-48D
60	42.0	122.4	12,500 ± 15%	AZ6961-1A-60D	AZ6961-1C-60D

\* Add suffix "E" to "1A" or "1C" for silver tin oxide contacts. Add suffix "B" to "1A" or "1C" for silver nickel contacts. Add suffix "E" at the end of order number for sealed version. Add suffix "A" for gold plated contacts.

## MECHANICAL DATA

### FORM C VERSION

### PC BOARD LAYOUT

VIEWED TOWARD TERMINALS

### FORM A VERSION

### CIRCUIT DIAGRAM

VIEWED TOWARD TERMINALS

### Coil Temperature Rise

### Maximum Switching Capacity

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

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