

# AZ761

## 12 A SPDT MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed version available
- 12 Amp switching
- Isolation spacing greater than 10 mm
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1), EN 60335-1 (VDE 0700, part 1)
- UL, CUR file E44211
- VDE 40006031



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C) SPST (1 Form A, 1 Form B)
<b>Ratings</b>	Resistive load: Max. switched power: 360 W or 3324 VA Max. switched current: 12 A Max. switched voltage: 150 VDC* or 400 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>	12 A at 277 VAC resistive, 50k cycles (standard coils) [1] 12 A at 277 VAC resistive, 100k cycles (standard coils) [2] [3] 10 A at 250 VAC resistive, 100k cycles (sensitive coils) [1] 1/2 HP at 250 VAC (1 Form A) [1] 1/3 HP at 125 VAC (1 Form A) [1] B300 Pilot Duty [2] R300 Pilot Duty [2]
<b>VDE</b>	12 A at 250 VAC resistive, [1] [2] and [3]
<b>Material</b>	Silver cadmium oxide [1] or silver tin oxide [2] or silver nickel [3]. Gold plating available
<b>Resistance</b>	< 50 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 12 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) standard -40°C (-40°F) to 105°C (221°F) sensitive -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	10 g
<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>	14 grams
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box

### COIL

<b>Power At Pickup Voltage (typical)</b>	196 mW, standard coil 141 mW, sensitive coil
<b>Max. Continuous Dissipation</b>	1.7 W at 20°C (68°F) ambient
<b>Temperature Rise (at nominal voltage)</b>	26°C (47°F) standard coil 17°C (31°F) sensitive coil
<b>Max. Temperature</b>	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 – 12 A RATING				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	1 Form A	1 Form C
5	3.5	10.2	62	AZ761-1A-5D	AZ761-1C-5D
6	4.2	12.3	90	AZ761-1A-6D	AZ761-1C-6D
9	6.3	18.3	200	AZ761-1A-9D	AZ761-1C-9D
12	8.4	24.7	360	AZ761-1A-12D	AZ761-1C-12D
18	12.6	37.0	810	AZ761-1A-18D	AZ761-1C-18D
24	16.8	49.4	1,440	AZ761-1A-24D	AZ761-1C-24D
48	33.6	98.0	5,760	AZ761-1A-48D	AZ761-1C-48D
60	42.0	112.9	7,500	AZ761-1A-60D	AZ761-1C-60D
110	77.0	206.9	25,200	AZ761-1A-110D	AZ761-1C-110D

  

COIL SPECIFICATIONS – SENSITIVE COIL - 10 A RATING				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	1 Form A	1 Form C
5	3.8	13.0	100	AZ761-1A-5DS	AZ761-1C-5DS
6	4.5	15.6	144	AZ761-1A-6DS	AZ761-1C-6DS
12	9.0	31.3	576	AZ761-1A-12DS	AZ761-1C-12DS
18	13.5	46.9	1,296	AZ761-1A-18DS	AZ761-1C-18DS
24	18.0	62.6	2,304	AZ761-1A-24DS	AZ761-1C-24DS
48	36.0	125.2	9,216	AZ761-1A-48DS	AZ761-1C-48DS
60	45.0	147.8	12,867	AZ761-1A-60DS	AZ761-1C-60DS

\* "1A" or "1C" denote silver cadmium oxide contacts.  
 Substitute "1B" in place of "1A" for 1 Form B contact.  
 Add suffix "E" to "1A" or "1B" or "1C" for silver tin oxide contacts.  
 Add suffix "B" to "1A" or "1B" or "1C" for silver nickel contacts.  
 Add suffix "E" at the end of order number for sealed version.  
 Add suffix "A" at the end of order number for gold plated contacts.  
 Add suffix "K" at the end of order number for 5 mm pin spacing version.

## MECHANICAL DATA

### PC BOARD LAYOUT

#### 3.5mm spacing Form C

#### 5.0mm spacing Form C

Viewed toward terminals

\* Not used on 1 Form A relay  
\*\* Not used on 1 Form B relay

### WIRING DIAGRAMS

#### 1 Form A

#### 1 Form B

#### 1 Form C

Viewed toward terminals

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

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2004-09-27