

# AZ951/AZ952

## SUBMINIATURE POWER RELAY

### FEATURES

- Subminiature size for high density packaging
- Low cost relay, SPDT contact arrangement
- 2 different pinnings available
- 1 Amp, 3 Amp and 5 Amp versions available
- Standard and sensitive coils up to 24 VDC available
- Sensitive coils with low pickup power of 116 mW
- Epoxy sealed
- Life expectancy of up to 10 million operations
- UL, CUR file E43203



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C)
<b>Ratings (max.)</b> (resistive load)	
Light duty version	
switched power	30 W or 125 VA
switched current	1 A
switched voltage	60 VDC* or 220VAC
Medium duty version	
switched power	90 W or 375 VA
switched current	3 A
switched voltage	60 VDC* or 220VAC
Heavy duty version	
switched power	150 W or 625 VA
switched current	5 A
switched voltage	60 VDC* or 220VAC
	* Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>UL Rated Loads</b>	
Light duty version	1 A at 125 VAC 1 A at 30 VDC
Medium duty version	3 A at 125 VAC 3 A at 30 VDC 270 VA, 125 VAC, Pilot Duty, 30k cycles (N.O.), 6k cycles (N.C.)
Heavy duty version	5 A at 125 VAC 5 A at 30 VDC
<b>Contact materials</b>	
Light duty version	Silver (Ag + Au), gold plated
Medium duty version	Silver (Ag + Au), gold plated
Heavy duty version	Silver nickel (AgNi + Au), gold plated
<b>Initial resistance</b>	≤ 50 mΩ

### 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.

### GENERAL DATA

<b>Life Expectancy</b>	(minimum operations)
mechanical	$1 \times 10^7$
electrical	$1 \times 10^5$ at 3 A 120 VAC resistive
<b>Operate Time</b>	5 ms (typ.) at nominal coil voltage
<b>Release Time</b>	1 ms (typ.) at nominal coil voltage, without coil suppression
<b>Dielectric Strength</b>	(at sea level for 1 min.) 1000 V <sub>RMS</sub> coil to contact 500 V <sub>RMS</sub> between open contacts
<b>Insulation Resistance</b>	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
<b>Temperature Range</b>	(at nominal coil voltage)
operating	
standard coil versions	-25°C (-13°F) to 55°C (131°F)
sensitive coil versions	-25°C (-13°F) to 70°C (158°F)
<b>Vibration resistance</b>	1.5 mm (0.062") DA at 10–55 Hz
<b>Shock</b>	10 g operating
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b>	
Max. Temperature	270°C (518°F)
Max. Time	5 seconds
<b>Cleaning</b>	
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
<b>Dimensions</b>	
length	15.75 mm (0.620")
width	10.75 mm (0.423")
height	11.81 mm (0.465")
<b>Weight</b>	3.5 grams (approx.)
<b>Packing unit in pcs</b>	25 per plastic tray / 2000 per carton box
<b>Compliance</b>	UL 508, RoHS

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This product specification to be used only together with the application notes which can be downloaded from [www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf](http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf)

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## COIL

<b>Nominal coil DC voltages</b>	see coil voltage specifications tables
<b>Dropout</b>	≥ 10% of nominal coil voltage
<b>Power</b>	(typ.)
nominal	
standard coil	450 mW
sensitive coil	200 mW
at pickup voltage	
standard coil	253 mW
sensitive coil	113 mW
<b>Temperature Rise</b>	(at nominal coil voltage)
standard coil	54 K (97°F)
sensitive coil	30 K (54°F)
<b>Max. temperature</b>	Class F insulation - 155°C (311°F)

## COIL VOLTAGE SPECIFICATIONS

### Standard Coil

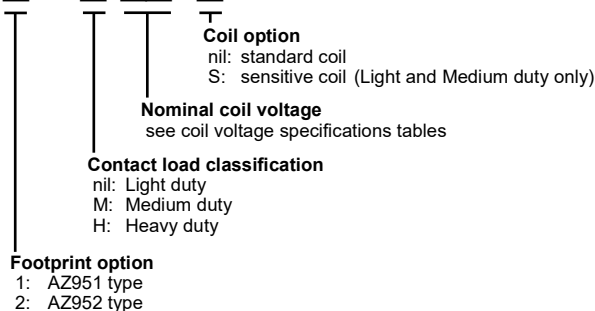
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	3.3	20
5	3.75	5.5	56
6	4.5	6.6	80
12	9.0	13.2	320
18	13.5	19.8	720
24	18.0	26.4	1280

### Sensitive Coil - Light and Medium duty versions only

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	3.3	45
5	3.75	5.5	125
6	4.5	6.6	180
9	6.75	9.9	405
12	9.0	13.2	720
18	13.5	19.8	1620
24	18.0	26.4	2880

## ORDERING DATA

AZ95□ - 1C□ - □□ D□ E

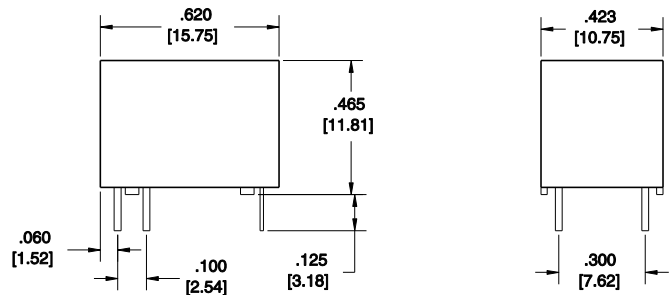


### Example ordering data

AZ951-1C-5DE	AZ951, Light duty, 5 VDC coil voltage, standard coil
AZ952-1CM-12DSE	AZ952, Medium duty, 12 VDC coil voltage, sensitive coil
AZ952-1CH-24DE	AZ952, Heavy duty, 24 VDC coil voltage, standard coil

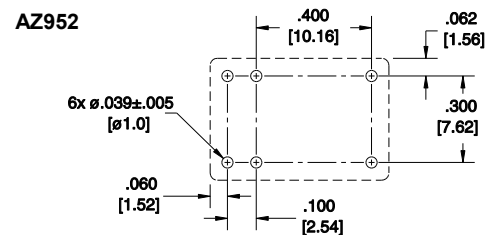
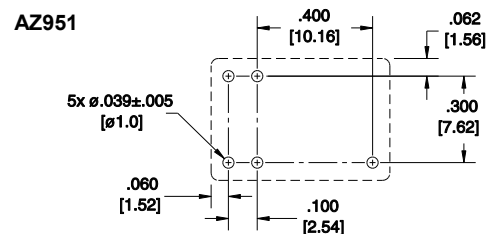
## MECHANICAL DATA

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



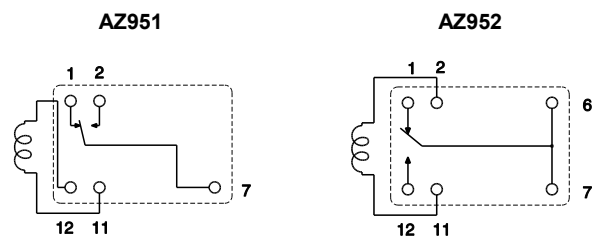
## PC BOARD LAYOUT

Viewed towards terminals.



## WIRING DIAGRAMS

Viewed towards terminals.



## DISCLAIMER

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