

# AZ951/AZ952

## SUBMINIATURE POWER RELAY

### FEATURES

- Subminiature size for high density packaging
- Coil sensitivity to 116 mW
- Extremely low cost
- Coils to 24 VDC
- Epoxy sealed for automatic wave soldering
- 1 Amp, 3 Amp & 5 Amp contacts
- Life expectancy to 10 million operations
- UL, CUR file E43203



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C)
<b>Ratings</b>	Resistive load:
<b>Light Duty</b>	Max. switched power: 30 W or 125 VA Max. switched current: 1 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 1 A at 30 VDC 1 A at 125 VAC
<b>Medium Duty</b>	Max. switched power: 90 W or 375 VA Max. switched current: 3 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 3 A at 30VDC 3 A at 125VAC
<b>Heavy Duty</b>	Max. switched power: 150 W or 625 VA Max. switched current: 5 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 5 A at 30VDC 5 A at 125VAC
<b>Material</b>	Light and Medium Duty: Silver, gold plated Heavy Duty: Silver nickel, gold plated
<b>Resistance</b>	< 100 milliohms initially

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	Standard Coil: 253 mW Sensitive coil: 116 mW
<b>Max Continuous Dissipation</b>	0.8 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	At nominal coil voltage: Standard: 54°C (97°F) Sensitive: 30°C (54°F)
<b>Max. Temperature</b>	105°C (221°F)

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 3 A 120 VAC Res.
<b>Operate Time (typical)</b>	5 ms at nominal coil voltage
<b>Release Time (typical)</b>	1 ms at nominal coil voltage (with no coil suppressions)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1250 Vrms coil to contact 750 Vrms between open contacts
<b>Insulation Resistance</b>	100 megohms min. at 20°C, 500 VDC
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage Standard: -25°C (-13°F) to 55°C (131°F) Sensitive: -25°C (-13°F) to 75°C (167°F)
<b>Vibration</b>	0.062" (1.5 mm) DA at 10–55Hz
<b>Shock</b>	15 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy
<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>	3.5 grams
<b>Packing unit in pcs</b>	
<b>AZ951</b>	25 per plastic tube / 2000 per carton box
<b>AZ952</b>	25 per plastic tube / 2000 per carton box

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Other coil resistances and sensitivities available upon request.
4. Specifications subject to change without notice.

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

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## RELAY ORDERING DATA

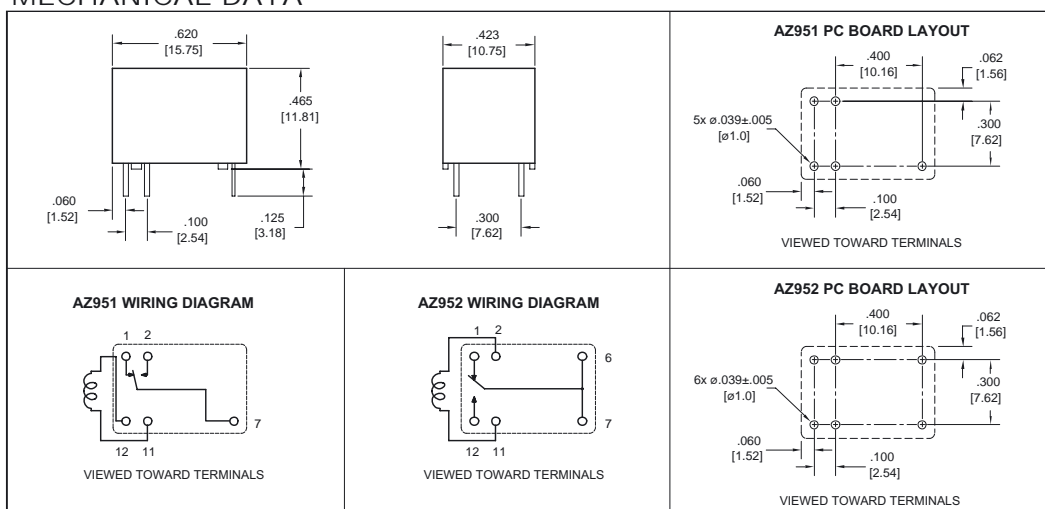
STANDARD RELAYS — Light Duty Type					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$		
5	3.75	6.7	56	AZ951-1C-5DE	AZ952-1C-5DE
6	4.50	8.0	80	AZ951-1C-6DE	AZ952-1C-6DE
12	9.00	16.0	320	AZ951-1C-12DE	AZ952-1C-12DE
24	18.00	32.0	1,280	AZ951-1C-24DE	AZ952-1C-24DE

SENSITIVE RELAYS — Light Duty Type					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$		
5	3.75	8.5	120	AZ951-1C-5DSE	AZ952-1C-5DSE
6	4.50	10.4	180	AZ951-1C-6DSE	AZ952-1C-6DSE
9	6.75	15.3	400	AZ951-1C-9DSE	AZ952-1C-9DSE
12	9.00	20.5	700	AZ951-1C-12DSE	AZ952-1C-12DSE
24	18.00	41.0	2,800	AZ951-1C-24DSE	AZ952-1C-24DSE

STANDARD RELAYS — Medium Duty Type					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$		
5	3.75	6.7	56	AZ951-1CM-5DE	AZ952-1CM-5DE
6	4.50	8.0	80	AZ951-1CM-6DE	AZ952-1CM-6DE
12	9.00	16.0	320	AZ951-1CM-12DE	AZ952-1CM-12DE
18	13.50	19.8	720	AZ951-1CM-18DE	AZ952-1CM-18DE
24	18.00	32.0	1,280	AZ951-1CM-24DE	AZ952-1CM-24DE

STANDARD RELAYS — Heavy Duty Type					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$		
5	3.75	6.7	56	AZ951-1CH-5DE	AZ952-1CH-5DE
6	4.50	8.0	80	AZ951-1CH-6DE	AZ952-1CH-6DE
12	9.00	16.0	320	AZ951-1CH-12DE	AZ952-1CH-12DE
24	18.00	32.0	1,280	AZ951-1CH-24DE	AZ952-1CH-24DE

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm 0.010''$

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