

## SUBMINIATURE POWER RELAY

### FEATURES

- Subminiature size for high density packaging
- Coil sensitivity to 114 mW
- Extremely low cost
- Coils to 24 VDC
- Epoxy sealed version available
- 2 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 125VAC General Use 1 A at 30 VDC Resistive
<b>Medium Duty</b>	Max. switched power: 30 W or 250 VA Max. switched current: 2 A Max. switched voltage: 150 VDC* or 300 VAC UL Rating: 2 A at 125VAC General Use 1 A at 30 VDC Resistive.
<b>Material</b>	Silver nickel, gold clad
<b>Resistance</b>	< 100 milliohms initially

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	0.45W coil: 253 mW 0.36W coil: 203 mW 0.2W coil: 114 mW
<b>Max Continuous Dissipation</b>	0.8 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	At nominal coil voltage: 0.45W coil: 54°C (97°F) 0.36W coil: 44°C (79°F) 0.2W coil: 30°C (54°F)
<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. Other coil resistances and sensitivities available upon request.
4. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy</b>	Minimum operations
<b>Mechanical</b>	1 x 10 <sup>7</sup>
<b>Electrical</b>	1 x 10 <sup>5</sup> at 2 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 0.45W: -25°C (-13°F) to 55°C (131°F) 0.36W: -25°C (-13°F) to 65°C (149°F) 0.2W: -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

# AZ954

## Discontinuation Notice

Discontinuation date AZ954X:

30.06.2020

Last time buy:

30.06.2019

Recommended replacement:

AZ951

### RELAY ORDERING DATA

Discontinuation date AZ954Y:

30.07.2018

Last time buy:

30.04.2018

Recommended replacement:

AZ952

MEDIUM DUTY RELAYS – 0.45 W COIL					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC		
3	4.0	20	2.25	AZ954X-1C-3D	AZ954Y-1C-3D
5	6.7	56	3.75	AZ954X-1C-5D	AZ954Y-1C-5D
6	8.0	80	4.50	AZ954X-1C-6D	AZ954Y-1C-6D
9	12.0	180	6.75	AZ954X-1C-9D	AZ954Y-1C-9D
12	16.0	320	9.0	AZ954X-1C-12D	AZ954Y-1C-12D
24	32.0	1,280	18.0	AZ954X-1C-24D	AZ954Y-1C-24D

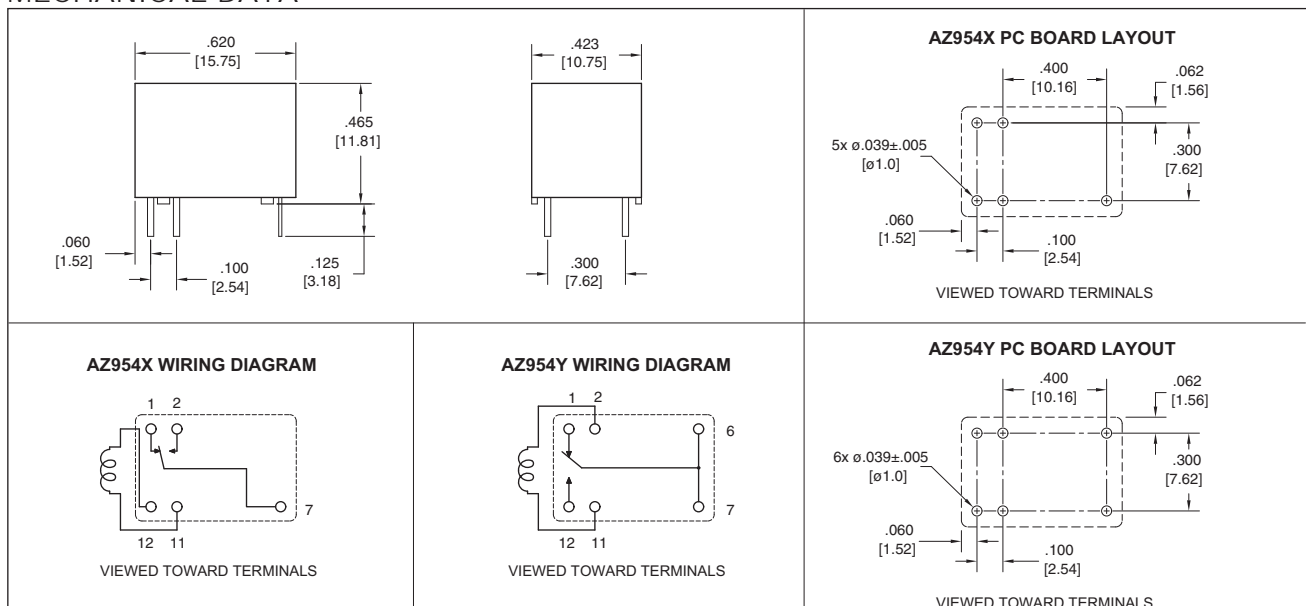
MEDIUM DUTY RELAYS – 0.36 W COIL					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC		
3	4.5	25	2.25	AZ954X-1C-3DM	AZ954Y-1C-3DM
5	7.5	70	3.75	AZ954X-1C-5DM	AZ954Y-1C-5DM
6	8.9	100	4.50	AZ954X-1C-6DM	AZ954Y-1C-6DM
9	13.4	225	6.75	AZ954X-1C-9DM	AZ954Y-1C-9DM
12	17.8	400	9.0	AZ954X-1C-12DM	AZ954Y-1C-12DM
24	35.7	1,600	18.0	AZ954X-1C-24DM	AZ954Y-1C-24DM

LIGHT DUTY RELAYS – 0.2 W COIL					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC		
3	6.0	45	2.25	AZ954X-1C-3DS	AZ954Y-1C-3DS
5	9.8	120	3.75	AZ954X-1C-5DS	AZ954Y-1C-5DS
6	12.0	180	4.50	AZ954X-1C-6DS	AZ954Y-1C-6DS
9	17.8	400	6.75	AZ954X-1C-9DS	AZ954Y-1C-9DS
12	23.6	700	9.0	AZ954X-1C-12DS	AZ954Y-1C-12DS
24	47.3	2,800	18.0	AZ954X-1C-24DS	AZ954Y-1C-24DS

\*Add suffix "E" for epoxy sealed version.

### MECHANICAL DATA



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

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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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