AZ970/AZ971_

40 AMP MINIATURE POWER RELAY FOR AUTOMOTIVE USE

FEATURES

- Low cost
- Up to 40 Amp switching capability in a compact size
- Open, covered or sealed
- Coils to 24 VDC
- Small footprint
- 1 Form A, B and C contacts available
- Vibration and shock resistant
- Designed for high in-rush applications

CONTACTS

Arrangement	SPST (1 Form A) SPST (1 Form B) SPDT (1 Form C)					
Ratings	Resistive load:					
	Max. switched power: Form A: 560 W Form B: 420 W Form C: 420 W					
	Max. switched current: Form A: 40 A Form B: 30 A Form C: 30 A					
	Max. switched voltage: 150* VDC					
	Max. carry current: 60 A					
	* If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.					
Minimum Load	5 VDC, 0.1 A					
Material	Silver alloy					
Resistance	< 100 milliohms initially (24 V, 1 A voltage drop method)					

COIL

Power	
At Pickup Voltage (typical)	514 mW (12 and 24 VDC Coil) 573 mW (6 VDC Coil)
Max. Continuous Dissipation	4.8 W 20°C (68°F) ambient (AZ970) 3.8 W 20°C (68°F) ambient (AZ971)
Temperature Rise	60°C (108°F) nominal coil VDC (AZ970) 75°C (135°F) nominal coil VDC (AZ971)
Max. Temperature	200°C (392°F)



GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 5 x 10 ⁶ operations 1 x 10 ⁵ operations at rated load				
Operate Time (typical)	3 ms at nominal coil voltage				
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)				
Dielectric Strength (at sea level for 1 min.)	500 VDC coil to contact 500 VDC between open contacts				
Insulation Resistance	100 megohms min. at 20°C, 500 VDC, 50% RH				
Dropout	Greater than 6% of nominal coil voltage				
Ambient Temperature AZ970 Operating AZ970 Storage AZ971 Operating AZ971 Storage	At nominal coil voltage -40°C (-40°F) to 140°C (284°F) -40°C (-40°F) to 200°C (392°F) -40°C (-40°F) to 125°C (257°F) -40°C (-40°F) to 175°C (347°F)				
Vibration	0.062" DA at 10–55 Hz				
Shock	10 g				
Enclosure	P.B.T. polyester				
Terminals	Tinned copper alloy, P.C.				
Max. Solder Temp.	270°C (518°F)				
Max. Solder Time	5 seconds				
Max. Solvent Temp.	80°C (176°F)				
Max. Immersion Time	30 seconds				
Weight	20 grams				

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 — AZ970 — OPEN STYLE

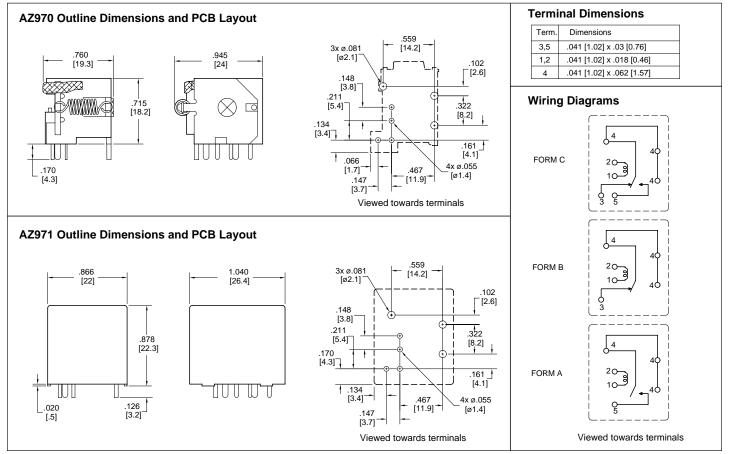
COIL SPECIFICATIONS			ORDER NUMBER			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ±10%	Form A (SPST)	Form B (SPST)	Form C (SPDT)
6	3.3	9.0	19.0	AZ970–1A–6D	AZ970–1B–6D	AZ970–1C–6D
9	5.1	14.7	50.0	AZ970–1A–9D	AZ970–1B–9D	AZ970–1C–9D
12	6.8	19.6	90.0	AZ970–1A–12D	AZ970–1B–12D	AZ970–1C–12D
24	13.9	39.3	362.0	AZ970–1A–24D	AZ970–1B–24D	AZ970–1C–24D

RELAY ORDERING DATA — AZ971 — With Dust Cover

COIL SPECIFICATIONS			ORDER NUMBER*			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ±10%	Form A (SPST)	Form B (SPST)	Form C (SPDT)
6	3.3	8.1	19.0	AZ971–1A–6D	AZ971–1B–6D	AZ971–1C–6D
9	5.1	14.7	50.0	AZ971–1A–9D	AZ971–1B–9D	AZ971-1C-9D
12	6.8	17.6	90.0	AZ971–1A–12D	AZ971–1B–12D	AZ971–1C–12D
24	13.9	35.4	362.0	AZ971–1A–24D	AZ971–1B–24D	AZ971–1C–24D

*Add suffix "E" for epoxy sealed version.

MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance: ±0.010"

