## **AZ9701E/AZ9711E** \_

## **45 AMP AUTOMOTIVE RELAY**

#### **FEATURES**

- Up to 45 Amp switching capability in a compact size
- Epoxy sealed versions available
- Coils to 24 VDC
- Small footprint
- 1 Form A and C contacts available
- Vibration and shock resistant
- ISO/TS 16949, ISO9001, ISO14000
- · Cost effective
- Designed for high in-rush applications
- UL, CUR File E43203



#### **CONTACTS**

Arrangement	SPST (1 Form A) SPDT (1 Form C)						
Ratings	Resistive load:						
	Max. switched power: Form A: 630 W Form C: 630 W/420W N.O./N.C.						
	Max. switched current: Form A: 45 A Form C: 45 A/30A N.O./N.C.						
	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.						
UL, CUR	45A at 14VDC Res. 10k cycles (1 Form A)						
Material	Silver tin oxide (silver nickel available - contact factory)						
Resistance	< 100 milliohms initially (24 V, 1 A voltage drop method)						

#### COIL

Power	
At Pickup Voltage (typical)	484-573 mW standard coil 675 mW sensitive coil
Max. Continuous Dissipation	4.2W 20°C (68°F) ambient
Temperature Rise	50°C (90°F) nominal coil VDC
Max. Temperature	155°C (311°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.

#### **GENERAL DATA**

Life Expectancy Mechanical Electrical	Minimum operations 5 x 10 <sup>6</sup> operations 1 x 10 <sup>5</sup> 40 A 14 VDC Res.				
Operate Time (typical)	5 ms at nominal coil voltage				
Release Time (typical)	3 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 (68°F), 500 VDC, 50% RH				
Dropout	Greater than 6% of nominal coil voltage				
Ambient Temperature Operating Storage Vibration	At nominal coil voltage -40°C (-40°F) to 135°C (275°F) -40°C (-40°F) to 155°C (311°F)) 10-40 Hz – 1.27 mm DA				
	40-70 Hz – 50 m/s <sup>2</sup> 70-100 HZ – 0.5 mm DA 100-500 Hz – 100 m/s <sup>2</sup>				
Shock	20 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				

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#### **RELAY ORDERING DATA - STANDARD COIL**

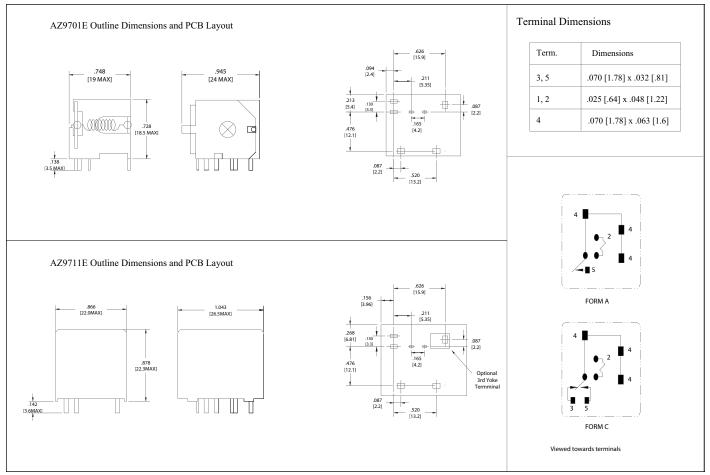
COIL SPECIFICATIONS				ORDER NUMBER			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ±10%	Open	Sealed*		
6	3.3	9.0	19.0	AZ9701E-1A-6DT AZ9701E-1C-6D	AZ9711E-1A-6DET AZ9711E-1C-6DET		
12	6.8	19.6	90.0	AZ9701E-1A-12DT AZ9701E-1C-12D1	AZ9711E-1A-12DET AZ9711E-1C-12DET		
24	13.9	39.3	362.0	AZ9701E-1A-24DT AZ9701E-1C-24DT	AZ9711E-1A-24DET AZ9711E-1C-24DET		

#### **RELAY ORDERING DATA - SENSITIVE COIL**

COIL SPECIFICATIONS			ORDER NUMBER				
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ±10%	Open		Sealed*	
6	4.5	11.3	30.0	AZ9701E-1A-6DST	AZ9701E-1C-6DST	AZ9711E-1A-6DSET	AZ9711E-1C-6DSET
12	9.0	22.6	120.0	AZ9701E-1A-12DST	AZ9701E-1C-12DST	AZ9711E-1A-12DSET	AZ9711E-1C-12DSET
24	19.2	45.2	480.0	AZ9701E-1A-24DST	AZ9701E-1C-24DST	AZ9711E-1A-24DSET	AZ9711E-1C-24DSET

<sup>\*</sup> Add suffix "K" to add third yoke pin.

#### **MECHANICAL DATA**



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

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