

# AZ699

## SENSITIVE SUBMINIATURE RELAY

### FEATURES

- Extremely small (5mm)
- 6 Amp switching capability
- High sensitivity, 83 mW pickup
- Dielectric strength 4000 Vrms contact to coil
- Coils up to 48 VDC
- Epoxy sealed
- Clearance greater than 6 mm
- Creepage greater than 8 mm
- UL, CUR file E43203
- VDE file 40020124



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 150 W or 1500 VA Max. switched current: 6 A Max. switched voltage: 300 VDC* or 400 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	6 A at 250 VAC resistive
<b>VDE</b>	6 A at 250 VAC resistive
<b>Material</b>	Silver tin oxide, gold plating available
<b>Resistance</b>	< 100 milliohms initially (AgSnO <sub>2</sub> ) < 30 milliohms initially (AgSnO <sub>2</sub> , gold plated)

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	83 mW
<b>Max. Continuous Dissipation</b>	0.9 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	20°C (36°F) at nominal coil voltage
<b>Temperature</b>	Max. 105°C (221°F)

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Minimum permissible contact load:  
AgSnO<sub>2</sub> contact: 100 mA at 12 VDC  
AgSnO<sub>2</sub> contact with gold plating: 10 mA at 5 VDC
4. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 X 10 <sup>7</sup> operations 1 X 10 <sup>5</sup> at 5 A, 250 VAC
<b>Operate Time (typical)</b>	5 ms at nominal coil voltage
<b>Release Time (typical)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1000 Vrms between open contacts 4000 Vrms contact to coil 6000 V surge, contact to coil
<b>Insulation Resistance</b>	100 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 5% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating Storage</b>	At nominal coil voltage -40°C (-40°F) to 85°C (158°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	5 g at 10–500 Hz
<b>Shock</b>	10 g
<b>Enclosure</b>	P.B.T. polyester 94V-0
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	260°C (500°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>	6 grams
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box

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## RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	AgSnO <sub>2</sub> Contact	AgSnO <sub>2</sub> with Gold Plated Contact
5	3.5	11.2	147	AZ699-1C-5DE	AZ699-1C-5DEA
12	8.4	26.8	848	AZ699-1C-12DE	AZ699-1C-12DEA
24	16.8	53.7	3,390	AZ699-1C-24DE	AZ699-1C-24DEA
48	33.6	100.0	10,600 ( $\pm 15\%$ )	AZ699-1C-48DE	AZ699-1C-48DEA

\*Substitute "1A" for "1C" to indicate 1 Form A contacts. Add suffix "H" at the end of order number for horizontal mounting.

## MECHANICAL DATA

Vertical Mount

### PC BOARD LAYOUT

Vertical Mount      Horizontal Mount

Note: Mounting hole diameters and center to center dimensions are the same for both vertical and horizontal mounting version.

Horizontal Mount

### WIRING DIAGRAM

**Form A**

Vertical Mount

**Form A**

Horizontal Mount

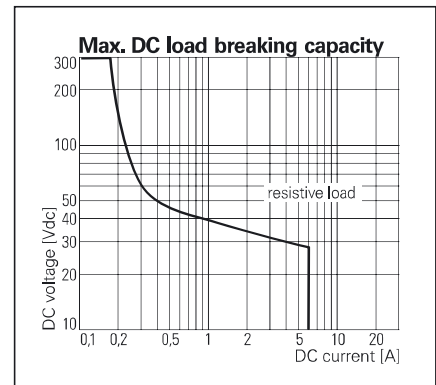
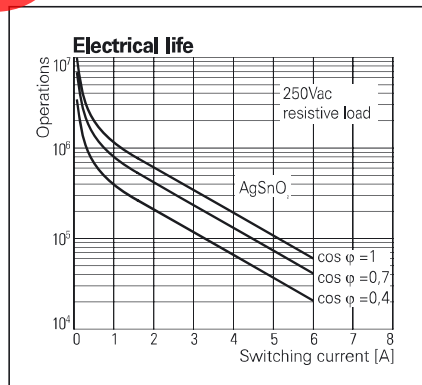
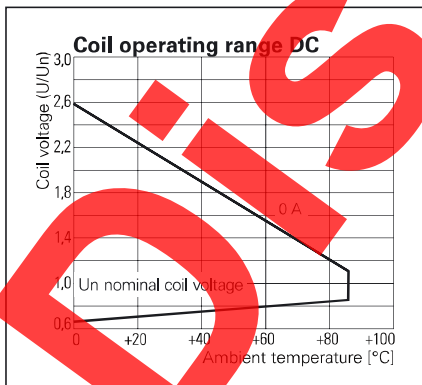
**Form C**

Vertical Mount

**Form C**

Horizontal Mount

Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ "



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