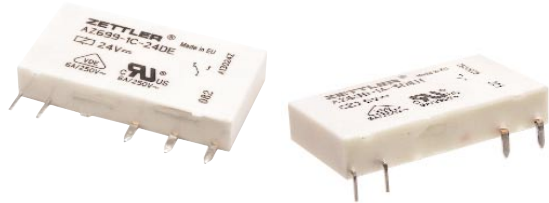


AZ699

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 40000296



CONTACTS

| | |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arrangement | SPST (1 Form A) SPDT (1 Form C) |
| Ratings | 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. |
| Rated Load UL, CUR | 6 A at 250 VAC resistive |
| VDE | 6 A at 250 VAC resistive |
| Material | Silver tin oxide, gold plating available |
| Resistance | < 100 milliohms initially (AgSnO ₂) < 30 milliohms initially (AgSnO ₂ , gold plated) |

COIL

| | |
|--------------------------------------------------|-------------------------------------|
| Power At Pickup Voltage (typical) | 83 mW |
| Max. Continuous Dissipation | 0.9 W at 20°C (68°F) ambient |
| Temperature Rise | 20°C (36°F) at nominal coil voltage |
| Temperature | 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 ₂ contact: 100 mA at 12 VDC AgSnO ₂ contact with gold plating: 10 mA at 5 VDC |
| 4. Specifications subject to change without notice. |

GENERAL DATA

| | |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Life Expectancy Mechanical Electrical | Minimum operations 1 X 10 ⁷ operations 1 X 10 ⁵ at 5 A, 250 VAC |
| 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.) | 1000 Vrms between open contacts 4000 Vrms contact to coil 6000 V surge, contact to coil |
| Insulation Resistance | 100 megohms min. at 20°C, 500 VDC, 50% RH |
| Dropout | Greater than 5% of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage -40°C (-40°F) to 85°C (158°F) -40°C (-40°F) to 105°C (221°F) |
| Vibration | 5 g at 10–500 Hz |
| Shock | 10 g |
| Enclosure | P.B.T. polyester 94V-0 |
| Terminals | Tinned copper alloy, P.C. |
| Max. Solder Temp. | 260°C (500°F) |
| Max. Solder Time | 5 seconds |
| Max. Solvent Temp. | 80°C (176°F) |
| Max. Immersion Time | 30 seconds |
| Weight | 6 grams |
| Packing unit in pcs | 20 per plastic tube / 1000 per carton box |

ZETTLER electronics GmbH

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0
Fax +49 89 800 97 200

office@ZETTLERelectronics.com
www.ZETTLERelectronics.com

AZ699

RELAY ORDERING DATA

| COIL SPECIFICATIONS | | | | ORDER NUMBER* | |
|---------------------|------------------|---------------------|-----------------------------------|----------------------------|---------------------------------------------|
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\Omega \pm 10\%$ | AgSnO ₂ Contact | AgSnO ₂ 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

Form C

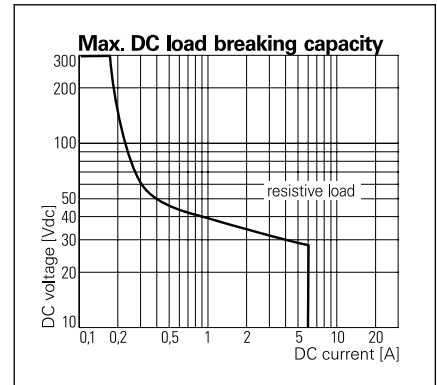
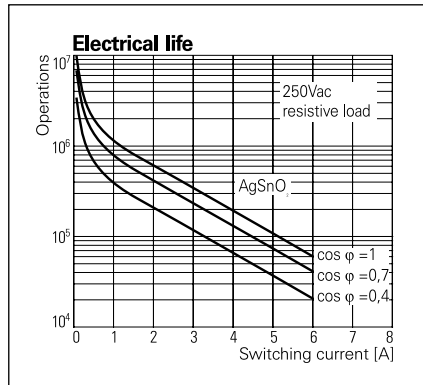
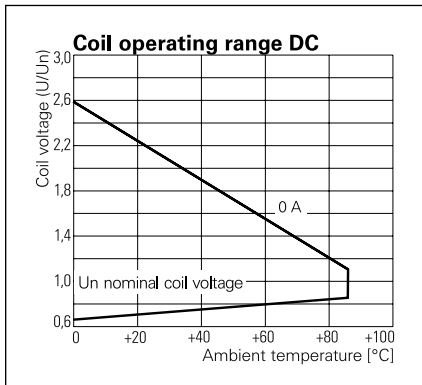
Vertical Mount

Form A

Form C

Horizontal Mount

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



ZETTLER electronics GmbH

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0
Fax +49 89 800 97 200

office@ZETTLERelectronics.com
www.ZETTLERelectronics.com