

# AZ9405

## 10 AMP MINIATURE POWER RELAY

### FEATURES

- 10 Amp switching capability
- SPST-N.O. and SPDT configurations
- 4 kV dielectric strength
- Epoxy sealed version available
- Class F insulation system standard
- UL, CUR file E44211
- TUV R50290833



### CONTACTS

<b>Arrangement</b>	SPST N.O. (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 150 W or 1400 VA N.O. 90 W or 850 VA N.C. Max. switched current: 10 A N.O., 3 A N.C.. Max. switched voltage: 30 VDC or 277 VAC
<b>UL, CUR (N.O.)</b>	10 A at 125 VAC, Res., 100k cycles, 85°C 5 A at 277 VAC, Res., 100k cycles, 85°C 5 A at 30 VDC, Res., 100k cycles, 85°C 1/10 HP at 125 VAC, 100k cycles, 85°C 1/10 HP at 250 VAC, 100k cycles, 85°C
<b>(N.C.)</b>	3 A at 277 VAC Res., 100k cycles, 85°C 3 A at 30 VDC Res., 100k cycles, 85°C
<b>Material</b>	Silver tin oxide
<b>Resistance</b>	< 0.1 Ohm (24 V, 1 A voltage drop method)

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	196 mW (Standard Coil) 113 mW (Sensitive Coil)
<b>Max. Continuous Dissipation</b>	676 mW at 20°C (68°F)
<b>Temperature Rise</b>	42°C (76°F) (Standard Coil) 24°C (44°F) (Sensitive Coil)
<b>Temperature</b>	Max. 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

<b>Life Expectancy</b>	Minimum operations
<b>Mechanical</b>	5 x 10 <sup>6</sup>
<b>Electrical</b>	1 x 10 <sup>5</sup> at 10 A 120 VAC Res.
<b>Operate Time (max.)</b>	10 ms at nominal coil voltage, standard 15 ms at nominal coil voltage, sensitive
<b>Release Time (max.)</b>	5 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1000 Vrms contact to contact 4000 Vrms contact to coil
<b>Insulation Resistance</b>	1 x 10 <sup>9</sup> ohms minimum at 500 VDC
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature</b>	At nominal coil voltage
<b>Operating</b>	-40°C (-40°F) to 85°C (185°F)
<b>Storage</b>	-40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.062" DA at 10–55 Hz
<b>Shock</b>	
<b>Operating</b>	10 g for 11 ms 1/2 sine pulse (no contact opening >100 usec)
<b>Mechanical</b>	100 g for 11 ms 1/2 sine pulse
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<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>	7 grams

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## RELAY ORDERING DATA

COIL SPECIFICATIONS – Standard Coil (SPDT and SPST)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	SPST-NO	SPDT
3	2.1	3.9	22.5	AZ9405-1A-3DF	AZ9405-1C-3DF
5	3.5	6.5	62.5	AZ9405-1A-5DF	AZ9405-1C-5DF
6	4.2	7.8	90	AZ9405-1A-6DF	AZ9405-1C-6DF
9	6.3	11.7	202.5	AZ9405-1A-9DF	AZ9405-1C-9DF
12	8.4	15.6	360	AZ9405-1A-12DF	AZ9405-1C-12DF
18	12.6	23.4	810	AZ9405-1A-18DF	AZ9405-1C-18DF
24	16.8	31.2	1440	AZ9405-1A-24DF	AZ9405-1C-24DF
48	33.6	62.4	5760	AZ9405-1A-48DF	AZ9405-1C-48DF

\*Add suffix "E" for sealed version.

COIL SPECIFICATIONS – Sensitive Coil (SPST)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
3	2.3	3.9	45	AZ9405-1A-3DSF	AZ9405-1A-3DSEF
5	3.8	6.5	125	AZ9405-1A-5DSF	AZ9405-1A-5DSEF
6	4.5	7.8	180	AZ9405-1A-6DSF	AZ9405-1A-6DSEF
9	6.8	11.7	400	AZ9405-1A-9DSF	AZ9405-1A-9DSEF
12	9.0	15.6	720	AZ9405-1A-12DSF	AZ9405-1A-12DSEF
18	13.5	23.4	1620	AZ9405-1A-18DSF	AZ9405-1A-18DSEF
24	18.0	31.2	2800	AZ9405-1A-24DSF	AZ9405-1A-24DSEF

## MECHANICAL DATA

### PC BOARD LAYOUT

### WIRING DIAGRAM

FORM A

FORM C

VIEWED TOWARD TERMINALS

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