

AZ9405

10 AMP MINIATURE POWER RELAY

FEATURES

- 10 Amp switching capability
- SPST-N.O. and SPDT configurations
- 4kV dielectric strength
- Epoxy sealed version available
- Class F insulation system standard
- UL, CUR file E44211
- TUV R50304647



CONTACTS

Arrangement	SPST N.O. (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 150W or 1400VA N.O. 90W or 850VA N.C. Max. switched current: 10A N.O., 3A N.C. Max. switched voltage: 30VDC or 277VAC
UL, CSA	Standard and Sensitive Coil
1 form A (only)	10A at 125 VAC, Res.100k cycles, 85°C
1 form A, and 1 form C (N.O.)	1/10 HP at 125 VAC, 100k cycles, 85°C 1/10 HP at 250 VAC, 100k cycles, 85°C
1 Form C (N.C.)	5A In-rush, 1A steady state at 120 VAC Pilot Duty, 50k cycles, 85°C
1 form A, and 1 form C (N.O.)	Sensitive Coil only 10A Carry, 0A Make, 5A Break at 277 VAC, Res., 10k cycles, 105°C 10A Carry, 0A Make, 5A Break 30 VDC, Res., 10k cycles, 105°C
1 form A, and 1 form C (N.O.)	Super Sensitive Coil Only 5A at 277 VAC, Res. 100k cycles, 85°C 5A at 30 VDC, Res., 100k cycles, 85°C
1 Form C (N.C.)	3A at 277 VAC Res., 100k cycles, 85°C 3A at 30 VDC Res., 100k cycles, 85°C
TUV	5A NO / 3A NC @ 277VAC; cos phi=1, 100k cycles, 85°C 5A NO / 3A NC @ 30VDC; L/R=0ms, 100k cycles, 85°C 5A NO @ 277VAC; cos phi=1, 100k cycles, 85°C 10A NO @ 125VAC; cos phi=1, 100k cycles, 85°C
Material	Silver tin oxide
Resistance	< 0.1 Ohm (24V, 1A voltage drop method)

COIL

Power At Pickup Voltage (typical)	225mW (Standard Coil) 113mW (Sensitive Coil) 84mW (Super Sensitive Coil)
Max. Continuous Dissipation	676mW at 20°C (68°F)
Temperature Rise	42°C (76°F) (Standard Coil) 24°C (44°F) (Sensitive Coil)
Temperature	Max. 155°C (311°F)

GENERAL DATA

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

COIL SPECIFICATIONS – Standard Coil (SPDT and SPST)				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	SPST-NO
3	2.25	3.9	22.5	AZ9405-1A-3DF
5	3.75	6.5	63	AZ9405-1A-5DF
6	4.5	7.8	90	AZ9405-1A-6DF
9	6.75	11.7	202.5	AZ9405-1A-9DF
12	9	15.6	360	AZ9405-1A-12DF
18	15.5	23.4	810	AZ9405-1A-18DF
24	18	31.2	1440	AZ9405-1A-24DF
48	36	62.4	5760	AZ9405-1A-48DF

*Add "E" after "D" for sealed version. For SPDT replace "-1A" with "-1C".

COIL SPECIFICATIONS – Sensitive Coil (SPST)				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	SPST-NO
3	2.25	3.9	45	AZ9405-1A-3DSF
5	3.75	6.5	125	AZ9405-1A-5DSF
6	4.5	7.8	180	AZ9405-1A-6DSF
9	6.75	11.7	400	AZ9405-1A-9DSF
12	9	15.6	720	AZ9405-1A-12DSF
18	13.5	23.4	1620	AZ9405-1A-18DSF
24	18	31.2	2800	AZ9405-1A-24DSF

*Add "E" after "DS" for sealed version. For SPDT replace "-1A" with "-1C".

COIL SPECIFICATIONS – Super Sensitive Coil (SPST)				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	SPST-NO
3	2.25	3.9	60	AZ9405-1A-3DSSF
5	3.75	6.5	166	AZ9405-1A-5DSSF
6	4.5	7.8	240	AZ9405-1A-6DSSF
9	6.75	11.7	540	AZ9405-1A-9DSSF
12	9	15.6	960	AZ9405-1A-12DSSF
18	13.5	23.4	2160	AZ9405-1A-18DSSF
24	18	31.2	3840	AZ9405-1A-24DSSF

*Add "E" after "DSS" for sealed version. For SPDT replace "-1A" with "-1C".

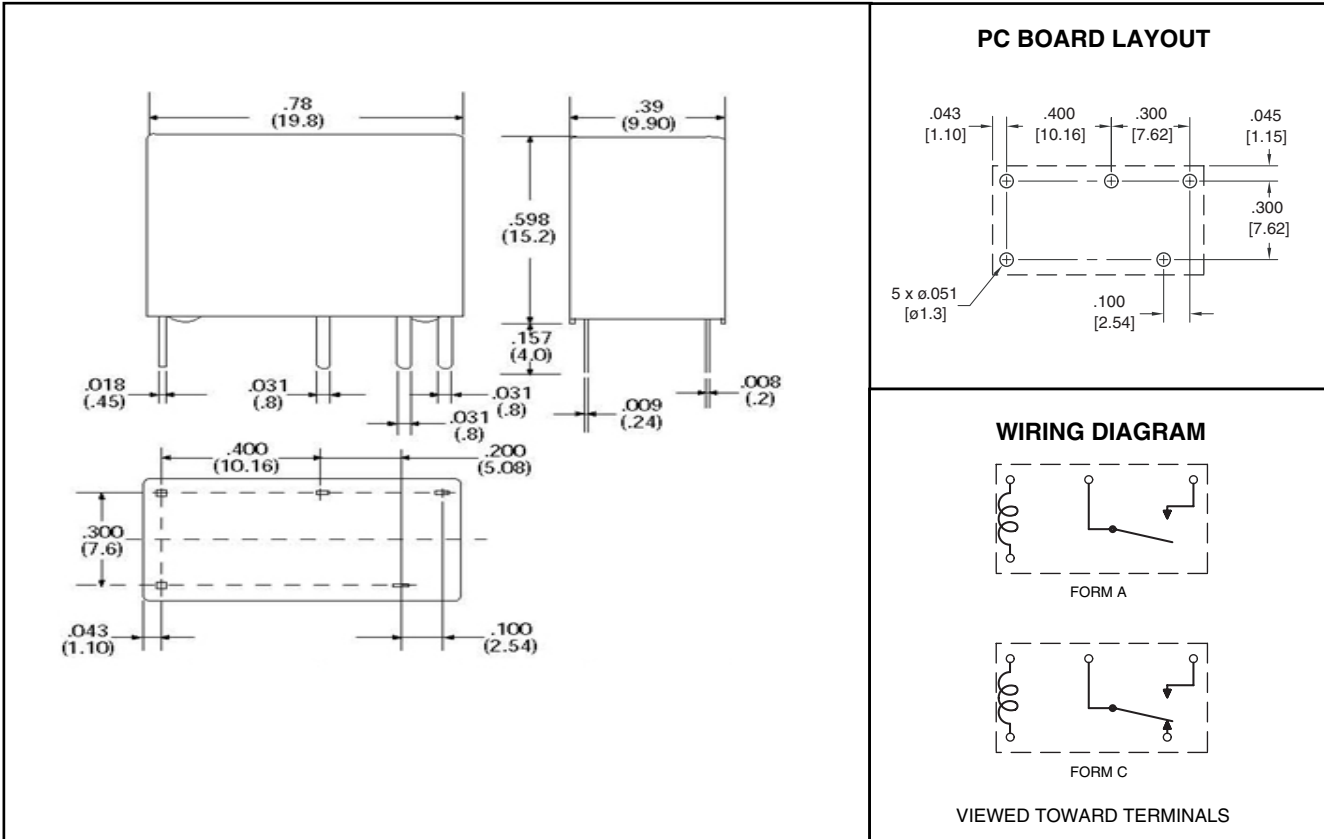
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MECHANICAL DATA



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