

AZ9371

SENSITIVE SUBMINIATURE RELAY

FEATURES

- Ambient Temperature up to 105°C (221°F)
- Thin vertical profile, only 7 mm wide
- High sensitivity, 113 mW pickup
- Dielectric strength 4000 Vrms
- > 5,5 mm clearance and creepage
- 5 Amp switching capability (version "T" 10 Amp)
- Two different footprints available
- Reinforced insulation (VDE 0700, 0631)
- UL, CUR file E44211
- VDE certificate 40030746



CONTACTS

Arrangement	SPST (1 Form A)
Ratings	Resistive load: Max. switched power: 150 W or 1385 VA (Version "T": 300 W or 2770 VA) Max. switched current: 5 A (Version "T": 10 A) Max. switched voltage: 30 VDC* or 277 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL VDE	See chart for UL contact ratings on page 2. 3A (51A) at 250VAC, capacitive, 85°C, 10k cycles [2]* Standard version 5 A at 250 VAC, resistive, 85°C, 50k cycles [1][2] 5 A at 30 VDC, resistive, 85°C, 30k cycles [1][2] 4 A at 250 VAC, cos phi 0.4, 70°C, 100k cycles [1] High capacity version "T" 10 A at 250 VAC, resistive, 85°C, 10k cycles [1][2] 10 A at 30 VDC, resistive, 85°C, 6k cycles [1][2] 7 A at 250 VAC, resistive, 105°C, 50k cycles [1] 7 A at 250 VAC, resistive, 85°C, 50k cycles [2] 7 A at 30 VDC, resistive, 105°C, 20k cycles [1] 7 A at 30 VDC, resistive, 85°C, 20k cycles [2] * duty factor: 2 seconds on / 15 seconds off
Material	Silver nickel [1], silver tin oxide [2], gold plating available
Resistance	< 100 milliohms initially (at 6 V, 1 A, voltage drop method)

COIL

Power At Pickup Voltage (typical)	113 mW
Max. Continuous Dissipation	750 mW at 20°C (68°F) ambient
Temperature Rise	26°C (47°F) at nominal coil voltage
Temperature	Max. 155°C (311°F) Class F

GENERAL DATA

Life Expectancy Mechanical	Minimum operations 5 million operations
Standard version Electrical	1 x 10 ⁵ at 5 A, 250 VAC res. [1] 5 x 10 ⁴ at 5 A, 250 VAC res. [2]
High capacity version "T" Electrical	5 x 10 ⁵ at 7 A, 250 VAC res. [1] 1 x 10 ⁴ at 10 A, 250 VAC res. [1][2] 6 x 10 ⁴ at 7 A, 250 VAC res. [2]
Operate Time (typical)	6 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.)	4000 Vrms coil to contact 1000 Vrms between open contacts
Surge Voltage Coil to contact	10,000 V (at 1.2x50 µs)
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 5% of nominal coil voltage
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 105°C (221°F)
Vibration	0.062" (1.5 mm) DA at 10–55 Hz
Shock	10 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	3 grams

NOTES

1. All values at 20°C (68°F)
2. Relay may pull in with less than "Must Operate" value.
3. Mounting position "terminals upside" is not recommended, if an electrical or mechanical life of > 100,000 operations is required.
4. Specifications subject to change without notice.

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RELAY ORDERING DATA

COIL SPECIFICATIONS				
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm$ 10%	ORDER NUMBER
3	2.25	5.8	45	AZ9371-1A-3D
5	3.75	9.7	125	AZ9371-1A-5D
6	4.50	11.6	180	AZ9371-1A-6D
9	6.75	17.4	405	AZ9371-1A-9D
12	9.00	23.2	720	AZ9371-1A-12D
18	13.50	34.8	1,620	AZ9371-1A-18D
24	18.00	46.5	2,880	AZ9371-1A-24D

* "1A" denote silver nickel contacts.

Add suffix "E" to "1A" for silver tin oxide contacts.

Add suffix "T" after "AZ9371" for high capacity version.

Add suffix "E" for sealed version.

Add suffix "K" for different footprint

Add suffix "G" at the end of order number for gold plated contacts.

RATED UL LOADS - STANDARD VERSION					
Load Type	Cycles	Voltage	Current	Ambient Temperature	Contact Material
General use	50.000	277 VAC	5 A	85°C	Silver nickel, silver tin oxide
	120.000	277 VAC	3 A	85°C	Silver nickel, silver tin oxide
	50.000	30 VDC	5 A	85°C	Silver nickel, silver tin oxide
	120.000	30 VDC	3 A	85°C	Silver nickel, silver tin oxide
Pilot duty	25.000	120 / 240 VAC	B300	40°C	Silver tin oxide
	25.000	125 / 250 VDC	R300	40°C	Silver tin oxide
Motor load	6.000	250 / 277 VAC	1/6 HP	85°C	Silver tin oxide
	6.000	125 VAC	1/10 HP	85°C	Silver tin oxide
TV load	25.000	120 VAC	TV-1	85°C	Silver tin oxide

RATED UL LOADS - HIGH CAPACITY VERSION "T"					
Load Type	Cycles	Voltage	Current	Ambient Temperature	Contact Material
General use	10.000	277 VAC	10 A	85°C	Silver nickel, silver tin oxide
	60.000	277 VAC	7 A	85°C	Silver tin oxide
	50.000	277 VAC	7 A	105°C	Silver nickel
	10.000	30 VDC	10 A	85°C	Silver nickel, silver tin oxide
	60.000	30 VDC	7 A	85°C	Silver tin oxide
	50.000	30 VDC	7 A	105°C	Silver nickel
Pilot duty	30.000	120 / 240 VAC	C300	105°C	Silver nickel
Motor load	6.000	250 / 277 VAC	1/6 HP	85°C	Silver tin oxide
	6.000	125 VAC	1/10 HP	85°C	Silver tin oxide
TV load	25.000	120 VAC	TV-3	40°C	Silver tin oxide
Definite purpose	30.000	250 VAC	1 FLA / 6 LRA	105°C	Silver nickel

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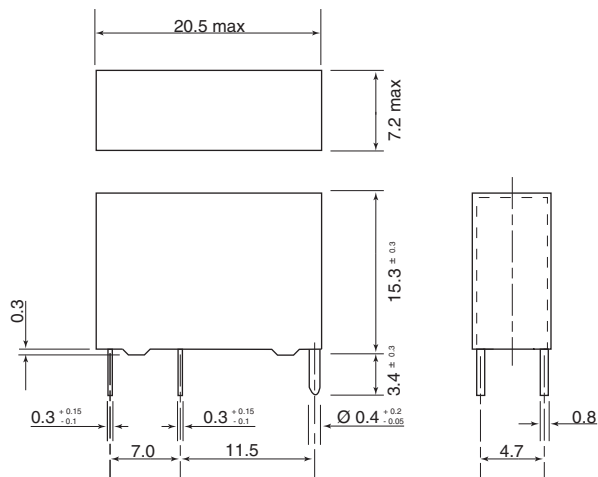
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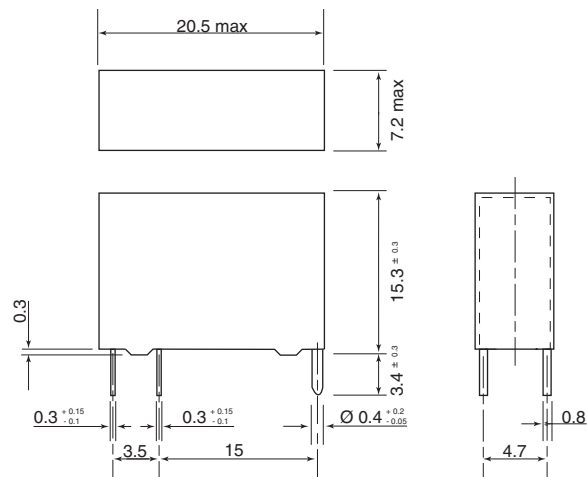
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MECHANICAL DATA

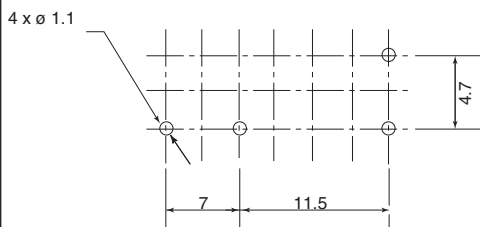
Standard Pinning Outline Dimensions



Version "K" Pinning Outline Dimensions

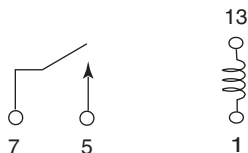


PC BOARD LAYOUT



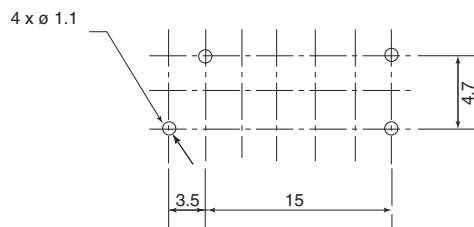
Viewed toward terminals

WIRING DIAGRAM



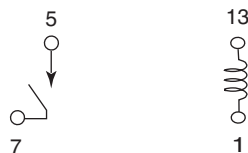
Viewed toward terminals

PC BOARD LAYOUT



Viewed toward terminals

WIRING DIAGRAM



Viewed toward terminals

Attention! Grid is not 0.1" (2.54 mm)!!

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