

# 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

<b>Arrangement</b>	SPST (1 Form A)
<b>Ratings</b>	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.
<b>Rated Load UL</b>	See chart for UL contact ratings on page 2.
<b>VDE</b>	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, 10k 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, 50k cycles [1] 7 A at 30 VDC, resistive, 85°C, 50k cycles [2]  * duty factor: 2 seconds on / 15 seconds off
<b>Material</b>	Silver nickel [1], silver tin oxide [2], gold plating available
<b>Resistance</b>	< 100 milliohms initially (at 6 V, 1 A, voltage drop method)

### COIL

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

### GENERAL DATA

<b>Life Expectancy Mechanical</b>	Minimum operations 5 million operations
Standard version <b>Electrical</b>	1 x 10 <sup>5</sup> at 5 A, 250 VAC res. [1] 5 x 10 <sup>4</sup> at 5 A, 250 VAC res. [2]
High capacity version "T" <b>Electrical</b>	5 x 10 <sup>5</sup> at 7 A, 250 VAC res. [1] 1 x 10 <sup>4</sup> at 10 A, 250 VAC res. [1][2] 6 x 10 <sup>4</sup> at 7 A, 250 VAC res. [2]
<b>Operate Time (typical)</b>	6 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>	4000 Vrms coil to contact 1000 Vrms between open contacts
<b>Surge Voltage Coil to contact</b>	10,000 V (at 1.2x50 µs)
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 5% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	10 g
<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>	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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This product specification to be used only together with the application notes  
which can be downloaded from <http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf>

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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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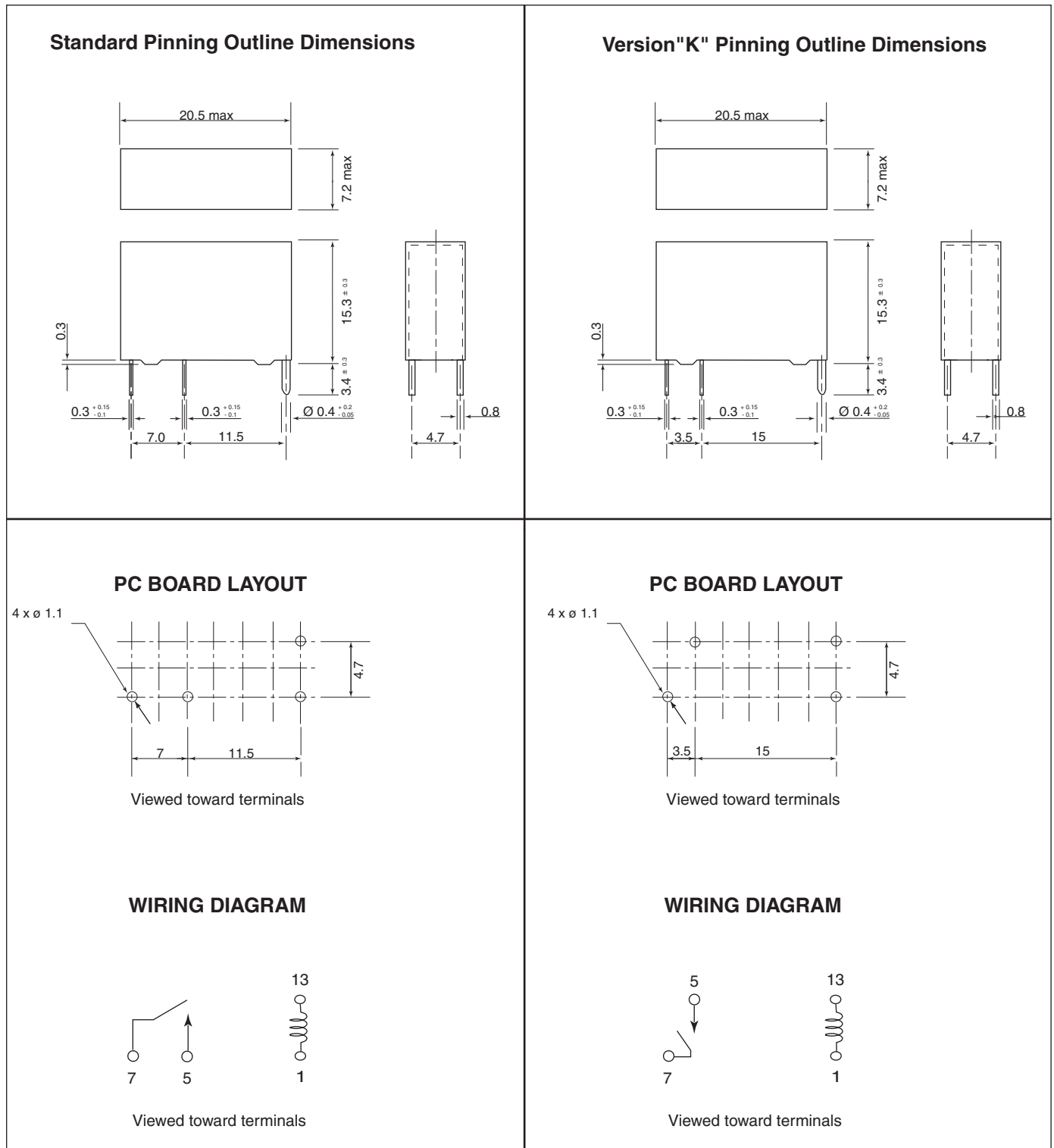
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## MECHANICAL DATA



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

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