

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 | See chart for UL contact ratings on page 2. |
| VDE | 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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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>

2018-05-16

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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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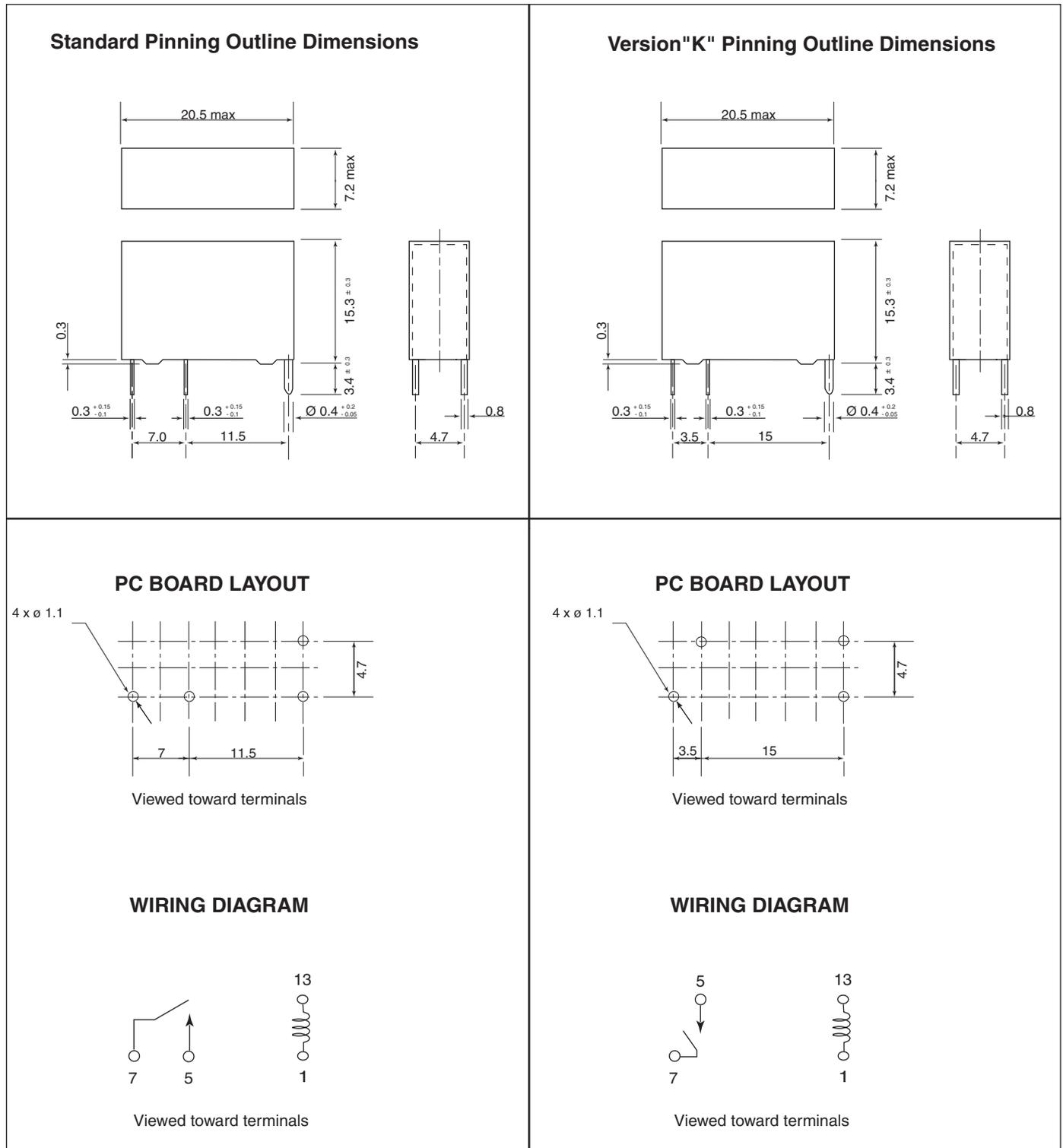
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MECHANICAL DATA



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

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