

AZ921

ULTRA-SENSITIVE SUBMINIATURE RELAY

FEATURES

- Extremely small footprint utilizing only 1 cm² of PCB area
- Thin vertical profile, only 5 mm wide
- > 3.5 mm clearance and creepage
- Proof tracking index (PTI/CTI) 250
- Slim SIP package
- 1 Form A contact with up to 5 Amp switching capability
- High sensitivity, 58 mW pickup
- 3000 Vrms dielectric strength contact to coil
- Epoxy sealed
- UL, CUR file E43203



CONTACTS

Arrangement	SPST (1 Form A) Single button contact or bifurcated contact
Ratings	Resistive load: Max. switched power: 150 W or 1250 VA Max. switched current: 5 A Max. switched voltage: 150 VDC* or 250 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	5 A at 250 VAC, resistive, 50k cycles [1][2][3] 3 A at 250 VAC, resistive, 100k cycles [1][2][3] 5 A at 30 VDC, resistive, 50k cycles [1][2][3] 3 A at 30 VDC, resistive, 100k cycles [1][2][3] B300 pilot duty [3] R300 pilot duty [3]
Material	Silver nickel (single button contact) [1] silver nickel gold plated (bifurcated contact) [2] silver tin oxide (single button contact) [3] gold plating available
Resistance	< 50 milliohms initially (at 6 V, 1 A, voltage drop method)

COIL

Power At Pickup Voltage (typical)	58 mW (5 - 18 VDC) 88 mW (24 VDC)
Max. Continuous Dissipation	1.3 W at 20°C (68°F) ambient
Temperature Rise	12°C (22°F) at nominal coil voltage (5-18 V) 17°C (31°F) at nominal coil voltage (24 V)
Temperature	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 2 x 10 ⁷ operations 1 x 10 ⁵ at 5 A, 30 VDC or 250 VAC
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.)	3000 Vrms coil to contact 1000 Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 85°C (185°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
Packing unit in pcs	100 per plastic tube / 1000 per carton box

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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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*
5	3.5	16.5	208	AZ921-1A-5DE
6	4.2	19.9	300	AZ921-1A-6DE
9	6.3	29.8	675	AZ921-1A-9DE
12	8.4	39.8	1,200	AZ921-1A-12DE
18	12.6	59.6	2,700	AZ921-1A-18DE
24	16.8	65.0	3,200	AZ921-1A-24DE

* "1A" denote silver nickel contacts.

Add suffix "B" to "1A" for bifurcated gold plated silver nickel contacts.

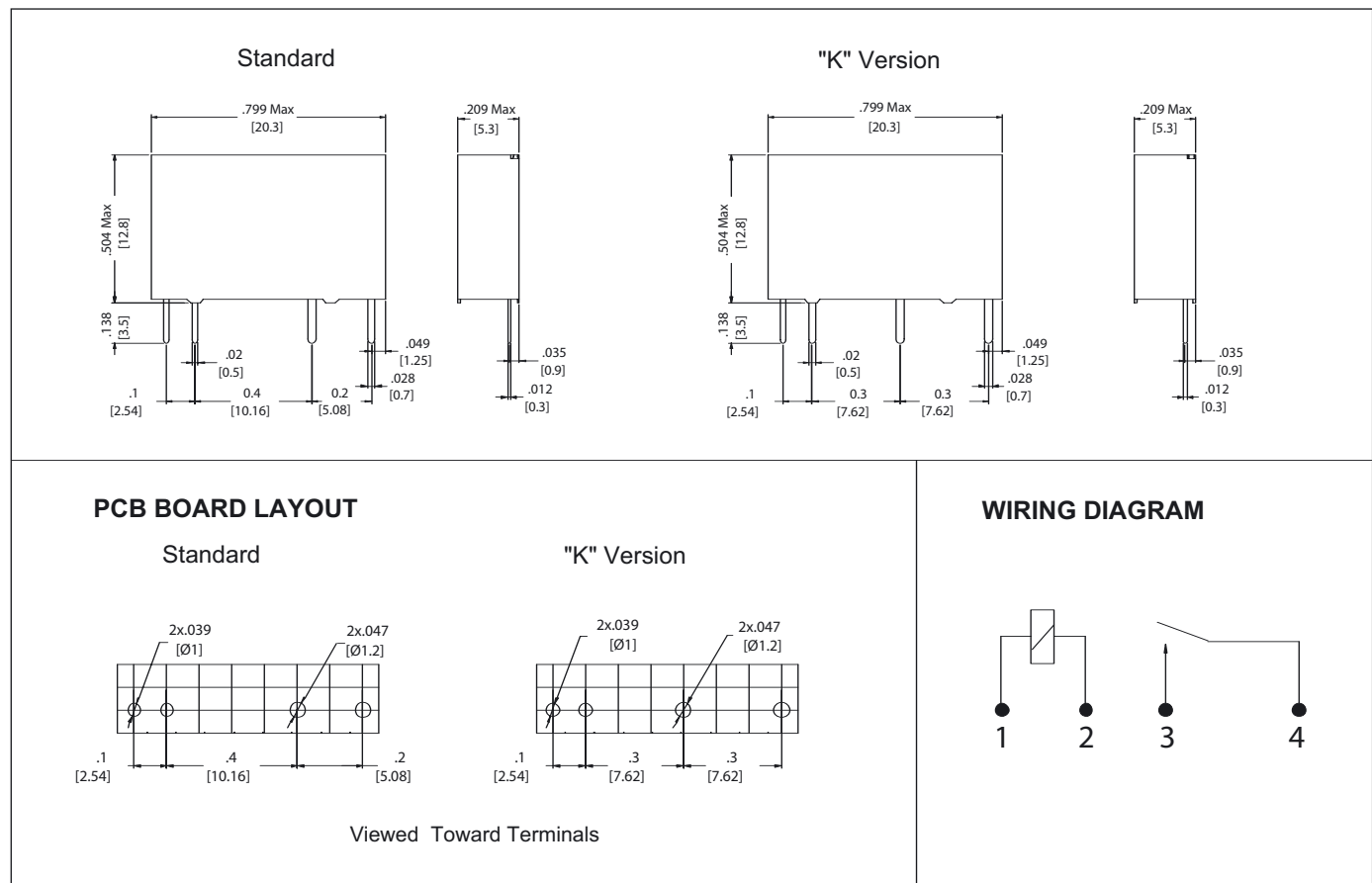
Add suffix "E" to "1A" for silver tin oxide contacts.

Add suffix "A" for gold plated contacts.

Add suffix "K" for .3 inch terminal spacing.

Add suffix "F" at the end of order number for Class F insulation.

MECHANICAL DATA



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