

AZ920

ULTRA-SENSITIVE SUBMINIATURE RELAY

FEATURES

- Extremely small footprint utilizing only 0.16 square inch of PCB area
- Thin vertical profile only 0.2" wide
- Slim SIP package
- 1 Form A contact with up to 5 Amp switching capability
- High sensitivity, 58 mW pickup
- Dielectric strength 2500 Vrms contact to coil
- Bifurcated contacts available
- Epoxy sealed for automatic wave soldering and cleaning
- Class B (130°C) standard
- Class F (155°C) versions available
- UL, CUR file E43203
- TÜV file R50155999

CONTACTS

Arrangement	SPST (1 Form A), single button contact or bifurcated
Ratings	Resistive load: Max. switched power: 150 W or 1250 VA Max. switched current: 5 A Max. switched voltage: 150* VDC or 250 VAC 5 A at 30 VDC or 250 VAC General Use, 100k cycles [1] 5 A at 30 VDC or 250 VAC Resistive, 100k cycles [1] 3 A at 30 VDC or 250 VAC General Use, 75k cycles [2] 3 A at 30 VDC or 250 VAC Resistive, 75k cycles [2] [1] Single button contacts [2] Bifurcated contacts Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
UL Rating: TÜV Rating	
Material	Silver nickel, silver tin oxide or silver cadmium oxide, gold plating available
Resistance	< 50 milliohms initially (1 A, 6 VDC method)

COIL

Power	
At Pickup Voltage (typical)	58 mW (5-18 V and 24 V sensitive coils) 88 mW (24 V coil)
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 coils) 17°C (31°F) at nominal coil voltage (24 V coil)
Temperature	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F



GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 20 million 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.)	1000 Vrms between open contacts 2500 Vrms contact to coil
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 120°C (248°F) -40°C (-40°F) to 130°C (266°F)
Vibration	0.062" DA at 10–55 Hz
Shock	15 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. Specifications subject to change without notice.



AMERICAN ZETTLER, INC.

www.azettler.com

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RELAY ORDERING DATA

AZ920-1AB-24D E A K F X

Special Code

May be followed by additional letters or numbers (does not affect construction)

Insulation System

Nil: Class B

F: Class F

Terminal Layout

Nil: 0.2 inch spacing

K: 0.3 inch spacing

Contact Plating (Single contact)

Nil: no plating

A: gold plating

Construction

Sealed: E

Coil Voltage

5D through 24D: 5 through 24 VDC

24DS: 24VDC Sensitive

Contact Configuration

-1A: AgNi, single contact, SPST-NO

-1AB: AgNi, bifurcated contact, SPST-NO (Gold plated)

-1AE: AgCdO, single contact, SPST-NO

-1AH: AgSnO₂, single contact, SPST-NO

Basic series designation - AZ920

Coil Specifications

Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC
5	16.5	208	3.5
6	19.9	300	4.2
9	29.8	675	6.3
12	39.8	1200	8.4
18	59.6	2700	12.6
24	65.0	3200	16.8
24(Sensitive)	79.6	4800	16.8



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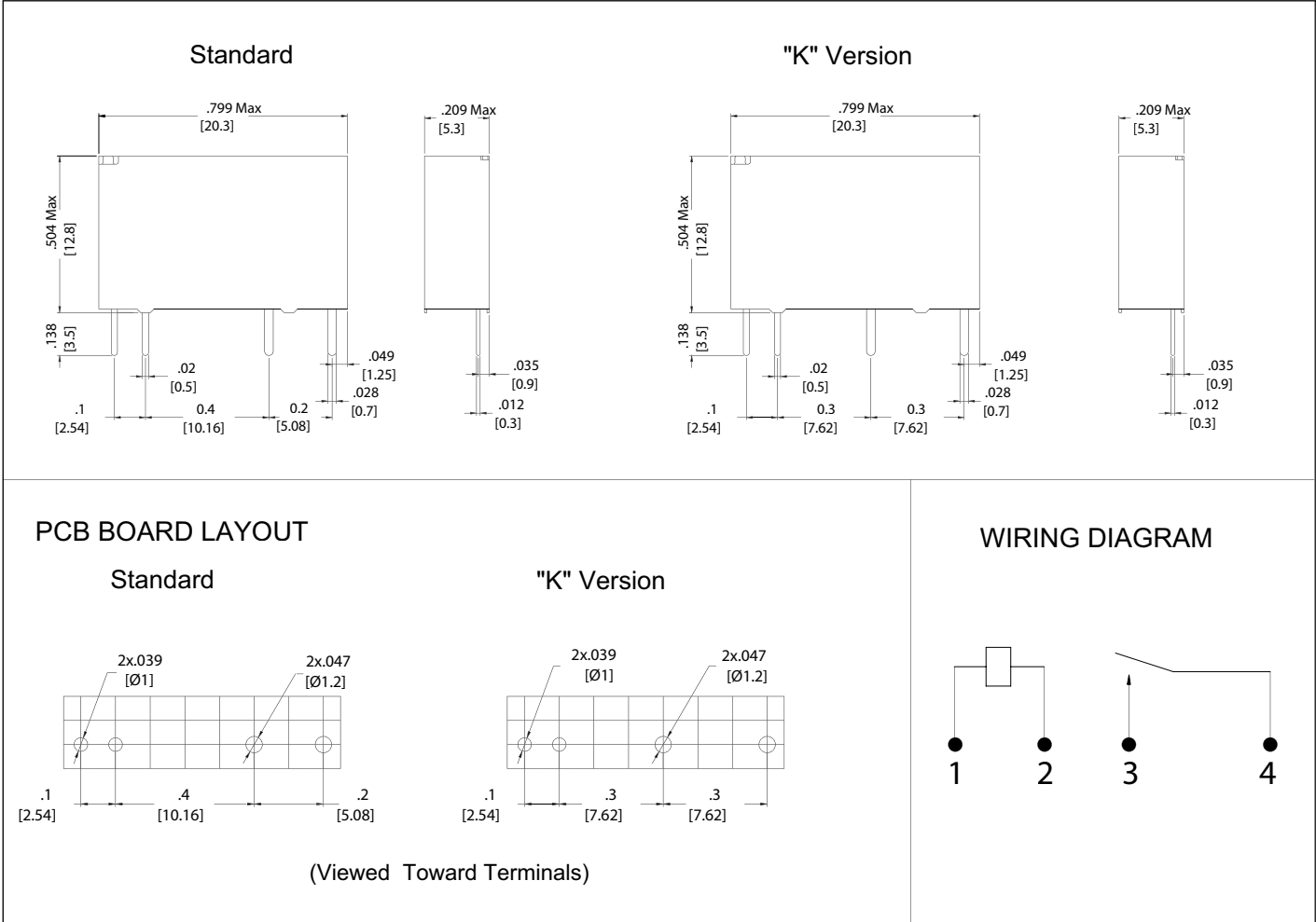
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MECHANICAL DATA



PCB BOARD LAYOUT

Standard

Dimensions: 2x.039 [Ø1], 2x.047 [Ø1.2], .1 [2.54], .4 [10.16], .2 [5.08].

"K" Version

Dimensions: 2x.039 [Ø1], 2x.047 [Ø1.2], .1 [2.54], .3 [7.62], .3 [7.62].

(Viewed Toward Terminals)

WIRING DIAGRAM

Terminal 1 is connected to Terminal 2. Terminal 3 is connected to Terminal 4. There is a break in the line between terminals 2 and 3.

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



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