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 **UL Rating:** **TÜV Rating**	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.
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 ±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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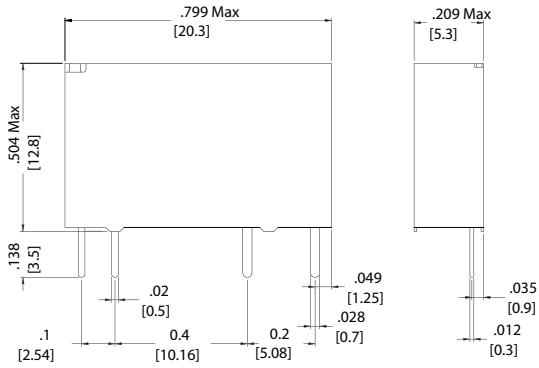
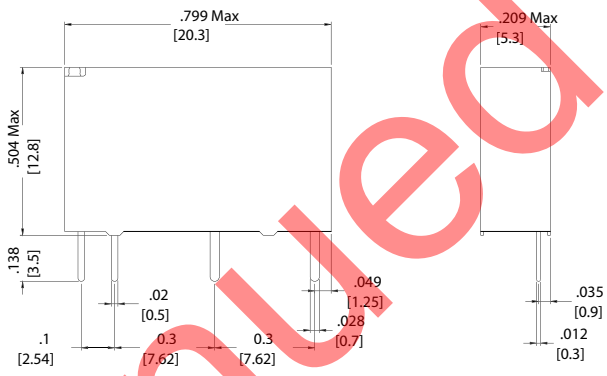
MECHANICAL DATA

Standard

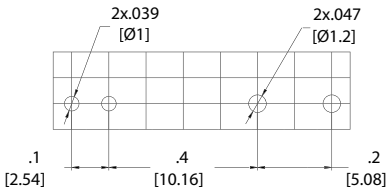


"K" Version

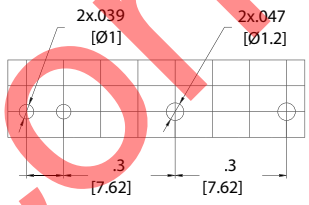


PCB BOARD LAYOUT

Standard

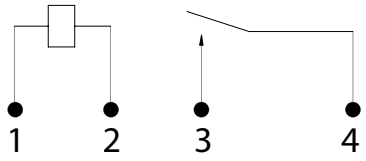


"K" Version



(Viewed Toward Terminals)

WIRING DIAGRAM



Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

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