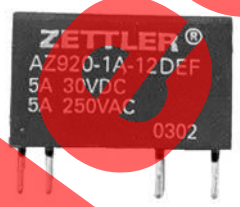
Discontinuation Notice
Discontinuation date: 31.12.2012
Date of last order: 15.11.2012
Recommended replacement: AZ921

AZ920

ULTRA-SENSITIVE SUBMINIATURE RELAY

FEATURES

- Extremely small footprint utilizing only 1 cm² of PCB area
- Thin vertical profile, only 5 mm wide
- Slim SIP package
- 1 Form A contact with up to 5 Amp switching capability
- High sensitivity, 58 mW pickup
- 2000 Vrms dielectric strength contact to coil
- Epoxy sealed
- UL, CUR file E43203
- TÜV certificate R50155999



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**	3 A at 250 VAC, General use, 100k cycles [1][3][4] 5 A at 250 VAC, General use, 100k cycles [3][4] 5 A at 250 VAC, General use, 75k cycles [1] 5 A at 30 VDC, resistive, 100k cycles [1][3][4] 3 A at 250 VAC, General use, 75k cycles [2] 3 A at 30 VDC, resistive, 100k cycles [2] All values at 85°C ambient
TÜV	5 A at 250 VAC, 50k cycles [1][2][4] 5 A at 250 VAC, 10k cycles [3] 5 A at 30 VDC, 100k cycles [1][2][4] 5 A at 30 VDC, 80k cycles [3]
Material	Silver nickel (single button contact) [1], silver nickel gold plated (bifurcated contact) [2] silver tin oxide (single button contact) [3], silver cadmium oxide (single button contact) [4], 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 V coils) 88 mW (24 V coil)
Max. Continuous Dissipation	1.3 W at 20°C (68°F) ambient
Temperature Rise at nominal coil voltage	12°C (22°F) 5-18 V coils 17°C (31°F) 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 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.)	2000 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** **Storage**	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -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
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.

ZETTLER electronics GmbH
Junkersstrasse 3, D-82178 Puchheim, Germany
Tel. +49 89 800 97 0 office@ZETTLERelectronics.com
Fax +49 89 800 97 200 www.ZETTLERelectronics.com

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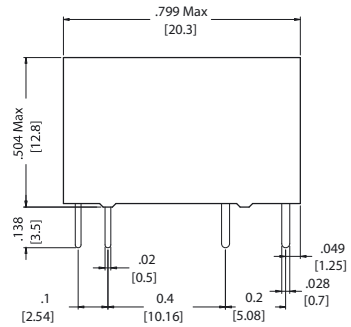
RELAY ORDERING DATA

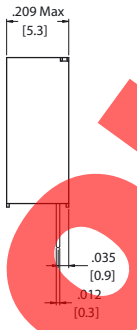
COIL SPECIFICATIONS				
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10%	ORDER NUMBER*
5	3.5	16.5	208	AZ920–1A–5DE
6	4.2	19.9	300	AZ920–1A–6DE
9	6.3	29.8	675	AZ920–1A–9DE
12	8.4	39.8	1,200	AZ920–1A–12DE
18	12.6	59.6	2,700	AZ920–1A–18DE
24	16.8	65.0	3,200	AZ920–1A–24DE

* "1A" denote silver nickel contacts.
Add suffix "B" to "1A" for bifurcated gold plated silver nickel contacts.
Add suffix "H" to "1A" for silver tin oxide contacts.
Add suffix "E" to "1A" for silver cadmium 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.

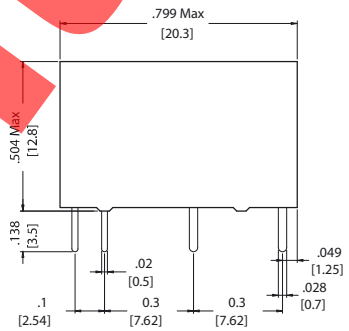
MECHANICAL DATA

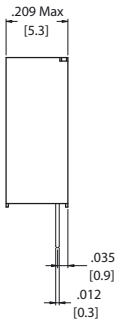
Standard





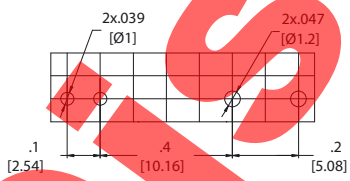
"K" Version



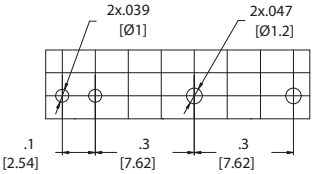


PCB BOARD LAYOUT

Standard

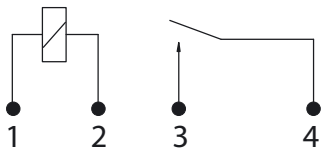


"K" Version



Viewed Toward Terminals

WIRING DIAGRAM



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

ZETTLER electronics GmbH
Junkersstrasse 3, D-82178 Puchheim, Germany
Tel. +49 89 800 97 0
Fax +49 89 800 97 200
office@ZETTLERelectronics.com
www.ZETTLERelectronics.com