



**THE DATASHEET OF  
AZ6991-1AE-12DE**



# AZ6991

## SENSITIVE SUBMINIATURE RELAY

### FEATURES

- Small footprint, extremely small width of only 5 mm
- 8 A switching capability
- High sensitivity with 95 mW pickup power
- Dielectric strength of 4000 VRMS between coil and contacts Isolation
- spacing greater than 8 mm
- Horizontal and vertical versions available
- Epoxy sealed version available
- Reinforced insulation, EN 60730-1, EN 60335-1
- UL, CUR file E43203
- VDE certificate 40020561



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load:  Max. switched power: 180W or 2216VA Max. switched current: 8A Max. switched voltage: 125VDC* or 400VAC Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL/CUR</b>	<b>1 Form A</b> 8 A at 277 VAC, resistive, 85°C, 10k cycles [1][2] 6 A at 277 VAC, resistive, 85°C, 60k cycles [1][2] 6 A at 277 VAC, general use, 85°C, 30k cycles [1] 6 A at 277 VAC, general use, 85°C, 20k cycles [2] B300, R300 pilot duty, 85°C [1][2] C300, R300 pilot duty, 28°C, 30k cycles [1][2] 6 A at 30 VDC, 85°C, 6k cycles [1][2]  <b>1 Form C</b> 8 A at 277 VAC, res., 85°C, 10k cycles (N.O.) [1][2] 6 A at 277 VAC, res., 85°C, 30k cycles (N.O.) [1][2] 6 A at 277 VAC, res., 85°C, 10k cycles (N.C.) [1][2] 6 A at 277 VAC, gen.use, 85°C, 30k cycles (N.O.) [1] 6 A at 277 VAC, gen.use, 85°C, 20k cycles (N.O.) [2] 6 A at 277 VAC, gen.use, 85°C, 20k cyc. (N.C.) [1][2] C300, R300 pilot duty, 28°C, 30k cycles (N.O.) [1][2] 6 A at 30 VDC, 85°C, 6k cycles [1][2] B300, R300 pilot duty, 85°C [1][2]
<b>VDE</b>	<b>1 Form A</b> 6 A at 250 VAC, 85°C, 50k cycles [1][2] 6 A at 30 VDC, 85°C, 60k cycles [1][2]  <b>1 Form C</b> 6 A at 250 VAC, 85°C, 10k cycles [1][2] 6 A at 30 VDC, 85°C, 60k cycles [1][2]
<b>Material</b>	Silver nickel [1], Silver Tin [2] Optional gold plating
<b>Resistance</b>	<100 milliohms initially (at 1A, 6VDC)

### COIL

<b>Power At Pickup Voltage (typical)</b>	95mW
<b>Max. Continuous Dissipation</b>	1.0W at 20°C (68°F) ambient
<b>Temperature Rise</b>	20°C (36°F) at nominal coil voltage
<b>Temperature</b>	Max. 105°C (221°F)

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 10 million operations 3 X 10 <sup>5</sup> at 5A, 50VAC Res.
<b>Operate Time (typical)</b>	8ms at nominal coil voltage
<b>Release Time (typical)</b>	4ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1000Vrms between open contacts 4000Vrms contact to coil
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 5% of nominal coil voltage
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -40°C (-40°F) to 85°C (158°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.062" DA 10–55 Hz
<b>Shock</b>	5 g
<b>Enclosure</b>	P.B.T. polyester 94V-0
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	260°C (500°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight (approx.)</b>	5 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.**

8/30/18

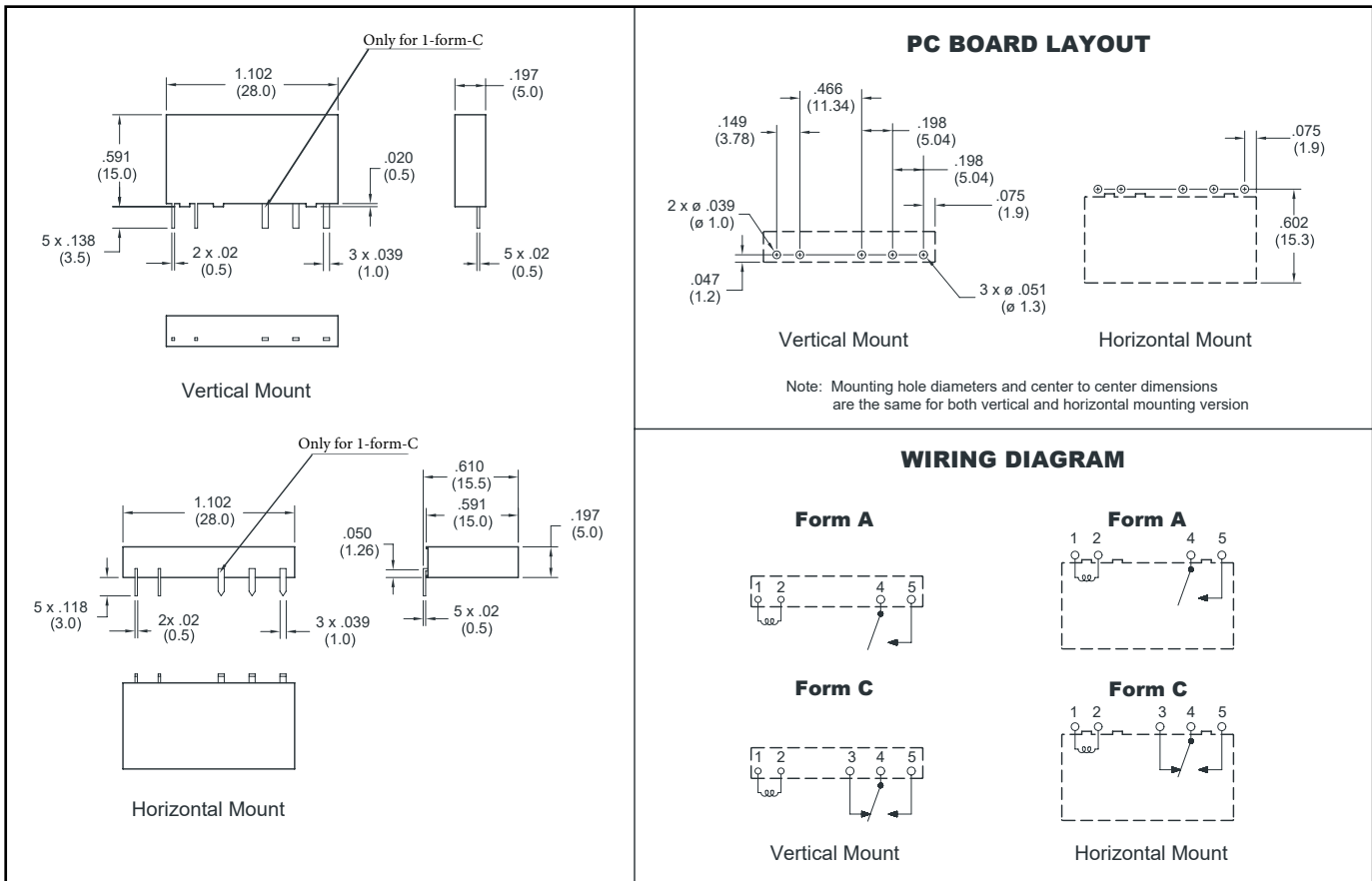
# AZ6991

## RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance	Unsealed	Sealed
5	3.75	11.5	147 ± 10%	AZ6991-1A-5D	AZ6991-1A-5DE
6	4.50	13.8	212 ± 10%	AZ6991-1A-6D	AZ6991-1A-6DE
9	6.75	20.7	476 ± 10%	AZ6991-1A-9D	AZ6991-1A-9DE
12	9.00	27.6	848 ± 10%	AZ6991-1A-12D	AZ6991-1A-12DE
18	13.5	41.4	1906 ± 15%	AZ6991-1A-18D	AZ6991-1A-18DE
24	18.0	55.2	3390 ± 15%	AZ6991-1A-24D	AZ6991-1A-24DE
48	36.0	97.7	10600 ± 15%	AZ6991-1A-48D	AZ6991-1A-48DE
60	45.0	122.2	16600 ± 15%	AZ6991-1A-60D	AZ6991-1A-60DE

\*Substitute "-1C" for "-1A" to indicate 1 Form C contacts. Add "E" after 1A or 1C for Silver Tin contacts. Add suffix "A" for gold plated contacts. Add suffix "H" for horizontal version.


## MECHANICAL DATA



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

## Looking for pricing, stock, or lifecycle information?

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 [American Zettler, Inc. Information](#)

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