# **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**

Arrangement	SPST (1 Form A) SPDT (1 Form C)					
Ratings	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.					
Rated Load UL/CUR	1 Form A 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]					
	1 Form C  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]					
VDE	1 Form A 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]					
Material	Silver nickel [1], Silver Tin [2] Optional gold plating					
Resistance	<100 milliohms initially (at 1A, 6VDC)					

## COIL

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



#### **GENERAL DATA**

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

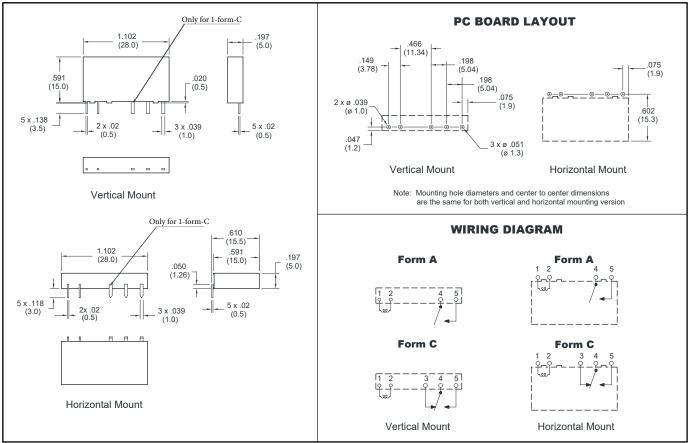
# AZ6991

## **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

<sup>\*</sup>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"

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