

# AZ6962

## 10 AMP SUBMINIATURE POWER RELAY

### FEATURES

- High sensitivity, 120 mW pickup
- Dielectric strength 5000 Vrms
- Isolation spacing greater than 10 mm
- Proof tracking index (PTI/CTI) 250
- Epoxy sealed version available
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1)  
EN 60335-1 (VDE 0700, part 1)
- UL, CUR file E44211
- VDE certificate 40025524



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C), SPST (1 Form A, 1 Form B)
<b>Ratings</b>	Resistive load:  Max. switched power: 300 W or 2500 VA Max. switched current: 10 A Max. switched voltage: 240 VDC* or 440 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	See chart for UL contact ratings on page 3.
<b>VDE</b>	See chart for VDE contact ratings on page 3.
<b>Material</b>	Silver tin oxide [1], silver nickel [2], gold plating available
<b>Resistance</b>	< 100 milliohms initially

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	120 mW (up to 24 VDC coil) 140 mW (48 VDC and 60 VDC coil)
<b>Max. Continuous Dissipation</b>	1.2 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	20°C (36°F) at nominal coil voltage
<b>Temperature</b>	Max. 130°C (266°F)

### 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.

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 8 A 250 VAC res.
<b>Operate Time (typical)</b>	7 ms at nominal coil voltage
<b>Release Time (typical)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	5000 Vrms coil to contact 1000 Vrms between open contacts
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC, 50% RH
<b>Insulation (according to DIN VDE 0110, IEC 60664-1)</b>	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)
<b>Vibration</b>	Break: 0.031" (0.8 mm) DA at 10–55 Hz Make: 0.059" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	Break Contact: 5 g Make Contact: 10 g
<b>Enclosure</b>	P.B.T. polyester, UL94 V-O
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°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</b>	8 grams
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box

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This product specification to be used only together with the application notes  
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2017-02-21

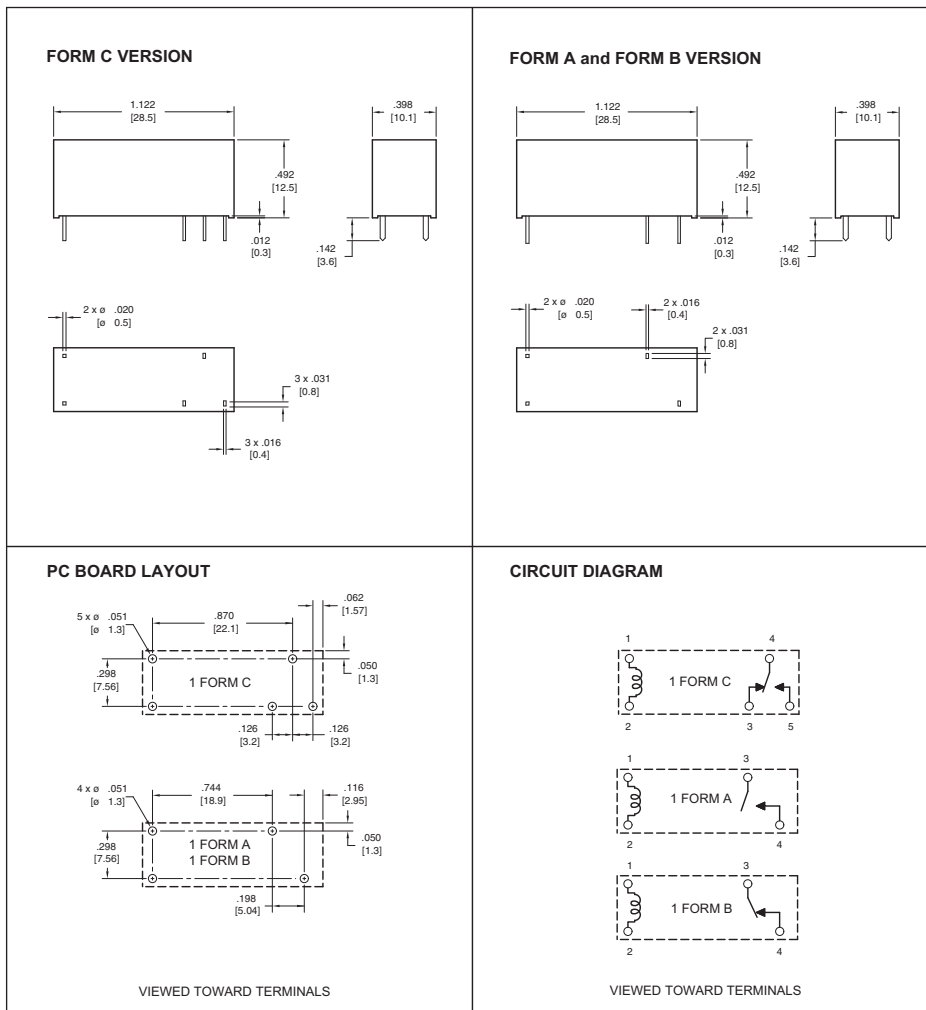
# AZ6962

## RELAY ORDERING DATA

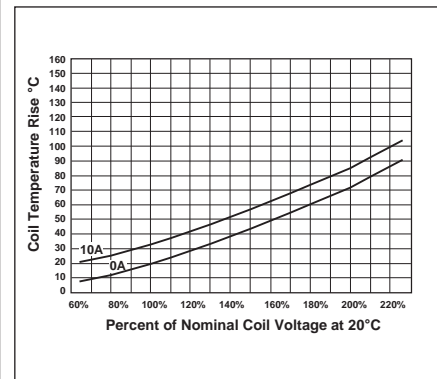
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm	1 Form A (SPST-NO)	1 Form C (SPDT)
5	3.5	11.6	113 ± 10%	AZ6962-1AE-5D	AZ6962-1CE-5D
6	4.2	14.0	164 ± 10%	AZ6962-1AE-6D	AZ6962-1CE-6D
9	6.3	20.8	360 ± 10%	AZ6962-1AE-9D	AZ6962-1CE-9D
12	8.4	27.2	620 ± 10%	AZ6962-1AE-12D	AZ6962-1CE-12D
15	10.5	31.0	970 ± 10%	AZ6962-1AE-15D	AZ6962-1CE-15D
18	12.6	39.4	1,295 ± 10%	AZ6962-1AE-18D	AZ6962-1CE-18D
24	16.8	53.1	2,350 ± 10%	AZ6962-1AE-24D	AZ6962-1CE-24D
48	33.6	98.0	8,000 ± 15%	AZ6962-1AE-48D	AZ6962-1CE-48D
60	42.0	122.4	12,500 ± 15%	AZ6962-1AE-60D	AZ6962-1CE-60D

\* "1AE" or "1CE" denote silver tin oxide contacts.  
 Substitute "1BE" in place of "1AE" or "1CE" for 1 Form B relay.  
 Substitute "1AB" or "1BB" or "1CB" in place of "1AE" or "1BE" or "1CE" for silver nickel contacts.  
 Add suffix "E" at the end of order number for sealed version.  
 Add suffix "A" at the end of order number for gold plated contacts.  
 Note: 15 VDC coil is not VDE approved!

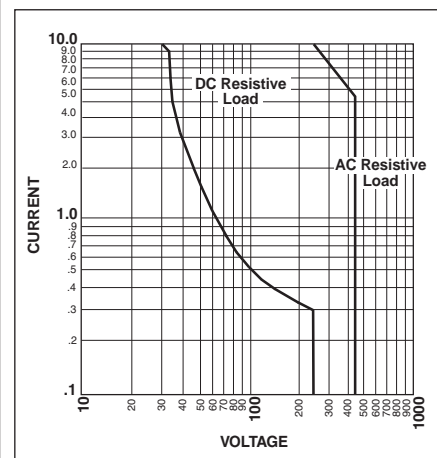
## MECHANICAL DATA



## Coil Temperature Rise



## Maximum Switching Capacity (1 Form A, 1 Form B and 1 Form C)



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

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## UL/CUR FILE E44211 APPROVED CONTACT RATING

Load Type	Cycles	Voltage	1 Form A (N.O.)	1 Form B (N.C.)	1 Form C		Contact Material	Ambient Temperature
					(N.O.)	(N.C.)		
Resistive	100k	250 VAC	10 A	-	10 A	-	[1][2]	85°C
	30k	250 VAC	10 A	10 A	10 A	10 A	[1][2]	85°C
	30k	30 VDC	10 A	10 A	10 A	10 A	[1][2]	85°C
General Use	100k	250 VAC	4 A	-	4 A	-	[2]	110°C
	100k	30 VDC	4 A	-	4 A	-	[2]	110°C
	30k	250 VDC	10 A	10 A	10 A	10 A	[2]	70°C
MotorLoad	30k	240 VAC	1/2 HP	-	1/3 HP	-	[1][2]	85°C
	30k	120 VAC	1/3 HP	-	1/3 HP	-	[1]	85°C
Pilot Duty	-	30 VDC	1 A	1 A	1 A	1 A	[2]	85°C
Inductive	-	-	B300	B300	B300	B300	[1][2]	85°C
	-	-	R300	R300	R300	R300	[1][2]	85°C

## VDE CERTIFICATE 40025524 APPROVED CONTACT RATING

Load Type	Cycles	Voltage	1 Form A (N.O.)	1 Form B (N.C.)	1 Form C		Contact Material	Ambient Temperature
					(N.O.)	(N.C.)		
Resistive	100k	250 VAC	8 A	8 A	-	-	[1][2]	85°C
	100k	250 VAC	10 A *	-	-	-	[1]	70°C
	100k	250 VAC	-	-	8 A	8 A	[2]	85°C
	10k	250 VAC	-	-	-	8 A	[1]	85°C
	100k	250 VAC	-	-	8 A	-	[1]	85°C
	100k	250 VAC	-	-	10 A	-	[2]	85°C
Inductive VDE 0631 Part 1	50k	250 VAC	10(4) A *	-	-	-	[1]	85°C
	100k	250 VAC	-	2(2) A	-	-	[2]	85°C
	100k	250 VAC	-	-	2(2) A	2(2) A	[1]	85°C
	100k	250 VAC	-	-	8(4) A	-	[1]	85°C
	30k	250 VAC	-	-	-	6(4) A	[1]	85°C
Inductive AC-15	100k	250 VAC	On: 30 A cos phi 0.7	-	On: 30 A cos phi 0.7	-	[1]	85°C
	100k	250 VAC	Off: 3 A cos phi 0.4	-	Off: 3 A cos phi 0.4	-	[1]	85°C

\* with open vent hole

[1] Silver tin oxide

[2] Silver nickel

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