

AZ963

SPDT SUBMINIATURE POWER RELAY

FEATURES

- 4 kV dielectric strength, 5 kV surge
- Proof tracking index (PTI/CTI) 250
- 6 Amp switching
- 10 A version (1 Form A) upon request
- Epoxy sealed
- UL, CUR file E43203
- VDE file 40011689



CONTACTS

Arrangement	SPDT (1 Form C) SPST (1 Form A and 1 Form B)
Ratings	Resistive load: Max. switched power: 180 W or 1500 VA Max. switched current: 6A Max. switched voltage: 220 VDC* or 380 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	6 A at 250 VAC, Resistive 6 A at 24 VDC, Resistive
VDE	5 A at 250 VAC, Resistive [1] 4 A at 250 VAC, Resistive [2]
Material	Silver nickel [1] or silver tin oxide [2]
Resistance	<100 milliohms initially

COIL

Power At Pickup Voltage (typical)	113 mW
Max. Continuous Dissipation	0.96 W at 20°C (68°F) ambient
Temperature Rise	30°C (54°F) at nominal coil voltage
Temperature	Max. 155°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

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 6 A 250 VAC Res.
Operate Time (typical)	6 ms at nominal coil voltage
Release Time (typical)	4 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	4000 Vrms coil to contact 1000 Vrms between open contacts
Surge Voltage Coil to contact	5,000V (at 1.2x50 µs)
Insulation Resistance	1000 megohms min. at 20°C 500 VDC 50% RH
Insulation (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution degree: 2 Nominal voltage: 250 VAC
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 10–50 Hz
Shock	20 g operating, 100 g damage
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	5 grams
Packing unit in pcs	20 per plastic tube / 1000 per carton box

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

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RELAY ORDERING DATA

STANDARD RELAYS					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	Form A (SPST)	Form C (SPDT)
3	2.25	6.6	45	AZ963-1A-3DE	AZ963-1C-3DE
5	3.75	11.0	125	AZ963-1A-5DE	AZ963-1C-5DE
6	4.5	13.2	180	AZ963-1A-6DE	AZ963-1C-6DE
9	6.75	19.6	405	AZ963-1A-9DE	AZ963-1C-9DE
12	9.0	26.4	720	AZ963-1A-12DE	AZ963-1C-12DE
18	13.5	36.6	1,620	AZ963-1A-18DE	AZ963-1C-18DE
24	18.0	52.8	2,880	AZ963-1A-24DE	AZ963-1C-24DE
36	27.0	79.2	6,480	AZ963-1A-36DE	AZ963-1C-36DE
48	36.0	105.6	11,520	AZ963-1A-48DE	AZ963-1C-48DE

* Substitute "1B" in place of "1A" for 1 Form B contact. Add suffix "E" to "1A" or "1B" or "1C" for silver tin oxide contacts.

MECHANICAL DATA

Top view dimensions: 20.3 max (width), 10.7 max (height), 3.5±0.2 (terminal height), 0.4 (terminal width).

Side view dimensions: 10.2 max (width), Ventilation (feature).

Bottom view dimensions: 0.8x0.3 (3x) (terminal spacing), $\varnothing 0.4$ (terminal diameter).

PC BOARD LAYOUT

Dimensions: $\varnothing 1$ (hole), $\varnothing 1.2(3x)$ (hole), 1.1 (hole offset), 7.62 (width), 10.16 (width), 7.62 (width), $\varnothing 2.54$ (hole).

Notes: Not used on 1 Form B relay; Not used on 1 Form A relay.

Viewed toward terminals

WIRING DIAGRAM

Viewed toward terminals

Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010$ "

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