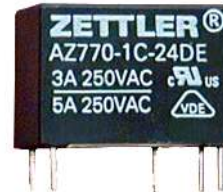


AZ770

SPDT SUBMINIATURE POWER RELAY

FEATURES

- 5kV dielectric strength, 10kV surge
- 8mm creepage and clearance
- Proof tracking index (PTI/CTI) 250
- 5 Amp switching capability (version "T" 10 Amp)
- 20A high inrush current (1 Form A)
- Epoxy sealed version available
- UL Class F insulation (155°C) standard
Reinforced insulation, EN 60730-1 (VDE 0631, part 1),
1 Form A: EN 60335-1 (VDE 0700, part 1)
- UL file #E44211
- VDE certificate 40006815
- UL 508, IEC61810-1, IEC60335-1 (GWT), RoHS,
REACH



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 150W or 1250VA (Version "T": 150W or 2500VA) Max. switched current: 5A (Version "T": 10A) Max. switched voltage: 30VDC* or 250VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	B300 pilot duty, 40°C 1000W, 250VAC, tungsten load, 40°C 6k cycles 1 Form A 5A at 250VAC, resistive, 100k cycles 5A at 30VDC, resistive, 100k cycles 3A at 250VAC, cos phi 0.4, 100k cycles 1/8HP at 125/250 VAC, 100k cycles C300 pilot duty, 125/250 VAC, 100k cycles TV-2 at 120VAC 1 Form C 3A at 250VAC, resistive, 100k cycles 3A at 30VDC, resistive, 100k cycles High capacity version "T" 10A at 250VAC, resistive, 85°C, 100k cycles 15A at 120VAC, resistive, 70°C, 6k cycles
VDE	5A at 250VAC, 85°C, 100k cycles 2A at 250VAC, cos phi 0.5, 85°C, 30k cycles * 3A at 400VAC, 85°C, 100k cycles * change-over contact tested as make contact High capacity version "T" 10A at 250VAC, 85°C, 15k cycles
Material	Silver nickel, silver tin oxide (high capacity version "T" only), gold plating available
Resistance	< 100 milliohms initially

GENERAL DATA

Life Expectancy Mechanical	Minimum operations 1 x 10 ⁶
Standard version Electrical	1 x 10 ⁵ at 5A 250VAC Res.
High capacity version "T" Electrical	1 x 10 ⁵ at 10A 250VAC Res.
Operate Time (max.)	8ms at nominal coil voltage
Release Time (max.)	4ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	5000Vrms coil to contact 1000Vrms between open contacts
Surge Voltage Coil to contact	10,000V (at 1.2x50 µs)
Insulation Resistance	1000 megohms min. at 20°C, 500VDC, 50% RH
Insulation (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250VAC
Dropout	Greater than 5% 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	1.5mm DA at 10–55 Hz
Shock	10 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 (approx.)	4.6 grams
Packing unit in pcs	100 per tray / 1000 per carton box

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COIL

Power	
At Pickup Voltage (typical)	253mW (standard coil) 113mW (sensitive coil) 130mW (sensitive coil high capacity version "T")
Max. Continuous Dissipation	760 mW at 20°C (68°F) ambient
Temperature Rise (at nominal voltage)	41°C (74°F) standard coil 22°C (40°F) sensitive coil 27°C (49°F) sensitive coil high capacity version "T"
Temperature	Max. 155°C (311°F)

NOTES

<ol style="list-style-type: none"> 1. All values at 20°C (68°F) 2. Relay may pull in with less than "Must Operate" value. 3. The vibration resistance is 0.6mm DA at 10–55 Hz for the N.C. contact, if vibration is in length direction. 4. Specifications subject to change without notice.
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RELAY ORDERING DATA

STANDARD COIL - TYPE 1 FOOTPRINT					
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	3.9	20	AZ770-1A-3D	AZ770-1C-3D
5	3.75	6.6	55	AZ770-1A-5D	AZ770-1C-5D
6	4.50	7.8	80	AZ770-1A-6D	AZ770-1C-6D
9	6.75	11.7	180	AZ770-1A-9D	AZ770-1C-9D
12	9.00	15.6	320	AZ770-1A-12D	AZ770-1C-12D
18	13.50	23.4	720	AZ770-1A-18D	AZ770-1C-18D
24	18.00	31.2	1,280	AZ770-1A-24D	AZ770-1C-24D
48	36.00	62.4	5,120	AZ770-1A-48D	AZ770-1C-48D

* "1A" or "1C" denote silver nickel contacts.

Substitute "AZ770T-1AE" in place of "AZ770-1A" for high capacity version.

Add suffix "E" at the end of order number for sealed version.

Add suffix "K" at the end of order number for different footprint (Type 2); not available for high capacity version "T".

Add suffix "G" at the end of order number for gold plated contacts.

SENSITIVE COIL (STANDARD VERSION) - TYPE 1 FOOTPRINT				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm \pm 10%	Form A (SPST)
3	2.25	5.1	45	AZ770-1A-3DS
5	3.75	8.5	125	AZ770-1A-5DS
6	4.50	10.2	180	AZ770-1A-6DS
9	6.75	15.3	400	AZ770-1A-9DS
12	9.00	20.4	720	AZ770-1A-12DS
18	13.50	30.6	1,600	AZ770-1A-18DS
24	18.00	40.8	2,800	AZ770-1A-24DS

* "1A" or "1C" denote silver nickel contacts.

Add suffix "E" at the end of order number for sealed version.

Add suffix "K" at the end of order number for different footprint (Type 2).

Add suffix "G" at the end of order number for gold plated contacts.

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SENSITIVE COIL (HIGH CAPACITY VERSION "T") - TYPE 1 FOOTPRINT				ORDER NUMBER*
COIL SPECIFICATIONS				Form A (SPST)
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	
3	2.25	5.1	38	AZ770T-1AE-3DS
5	3.75	8.5	108	AZ770T-1AE-5DS
6	4.50	10.2	155	AZ770T-1AE-6DS
9	6.75	15.3	350	AZ770T-1AE-9DS
12	9.00	20.4	620	AZ770T-1AE-12DS
18	13.50	30.6	1,390	AZ770T-1AE-18DS
24	18.00	40.8	2,480	AZ770T-1AE-24DS
48	36.00	81.6	9,920	AZ770T-1AE-48DS

*"1AE" denote silver tin oxide contacts.

Add suffix "E" at the end of order number for sealed version.

Add suffix "G" at the end of order number for gold plated contacts.

MECHANICAL DATA

<p>Type 1</p>	<h3>PC BOARD LAYOUT</h3> <p>Type 1 Type 2</p> <p>Viewed toward terminals</p> <p>*Not used on Form A version</p>
<p>Type 2</p>	<h3>WIRING DIAGRAMS</h3> <p>Type 1 Type 2</p> <p>Viewed toward terminals</p> <p>*Not used on Form A version</p>

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

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.