AZ770

SPDT SUBMINIATURE POWER RELAY

FEATURES

- 5 kV dielectric strength, 10 kV surge
- 8mm creepage and clearance
- Proof tracking index (PTI/CTI) 250
- 5 Amp switching (1 Form A: 20A inrush)
- Epoxy sealed version available
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1), 1 Form A: EN 60335-1 (VDE 0700, part 1)
- UL, CUR file E44211
- VDE file 40006815

CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 150 W or 1250 VA Max. switched current: 5 A Max. switched voltage: 150 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**	Form A (N.O.) 5 A at 250 VAC, Res., 100k cycles 5 A at 30 VDC, Res., 100k cycles 1/8 HP, 125 / 250 VAC, 100k cycles 3 A at 250 VAC, cos phi 0.4, 100k cycles C300 Pilot Duty, 125 / 250 VAC, 100k cycles TV-2, 120 VAC Form C 3 A at 250 VAC, Res., 100k cycles 3 A at 30 VDC, Res., 100k cycles
VDE	5 A at 250 VAC, Res., 100k cycles at 85°C
Material	Silver nickel, gold plating available
Resistance	< 100 milliohms initially

COIL

Power	
At Pickup Voltage (typical)	253 mW standard coil 113 mW sensitive coil
Max. Continuous Dissipation	1.25 W at 20°C (68°F) ambient
Temperature Rise (at nominal voltage)	41°C (74°F) standard coil 22°C (40°F) sensitive coil
Temperature	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

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1 x 10^6 1 x 10^5 at 5 A 250 VAC Res.
Operate Time (typical)	8 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.)	5000 Vrms coil to contact 1000 Vrms between open contacts
Surge Voltage Coil to contact	10,000V (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: 3 Nominal voltage: 250 VAC
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	0.062" (1.5 mm) DA at 10–50 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	4.6 grams
Packing unit in pcs	100 per plastic tray / 1000 per carton box

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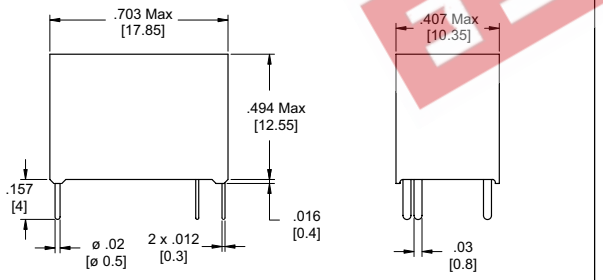
RELAY ORDERING DATA

STANDARD RELAYS – TYPE 1 FOOTPRINT					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10%	Form A (SPST)	Form C (SPDT)
3	2.25	3.9	20	AZ770–1A–3D	AZ770–1C–3D
5	3.75	6.5	55	AZ770–1A–5D	AZ770–1C–5D
6	4.5	7.8	80	AZ770–1A–6D	AZ770–1C–6D
9	6.75	11.7	180	AZ770–1A–9D	AZ770–1C–9D
12	9.0	15.6	320	AZ770–1A–12D	AZ770–1C–12D
18	13.5	23.4	720	AZ770–1A–18D	AZ770–1C–18D
24	18.0	31.2	1,280	AZ770–1A–24D	AZ770–1C–24D
48	36.0	62.4	5,120 ±15%	AZ770–1A–48D	AZ770–1C–48D

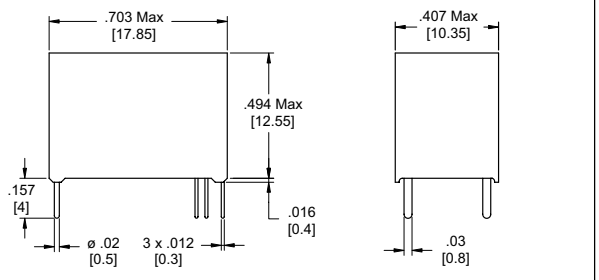
SENSITIVE RELAYS – TYPE 1 FOOTPRINT				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10%	Form A (SPST)
3	2.25	5.1	45	AZ770–1A–3DS
5	3.75	8.5	125	AZ770–1A–5DS
6	4.5	10.2	180	AZ770–1A–6DS
9	6.75	15.3	400	AZ770–1A–9DS
12	9.0	20.4	720	AZ770–1A–12DS
18	13.5	30.6	1,600	AZ770–1A–18DS
24	18.0	40.8	2,800	AZ770–1A–24DS
48	36.0	81.6	11,520 ±15%	AZ770–1A–48DS

* Add suffix “E” for epoxy sealed version. Add suffix “K” for Type 2 footprint. Add suffix “G” for gold plated contacts.

MECHANICAL DATA

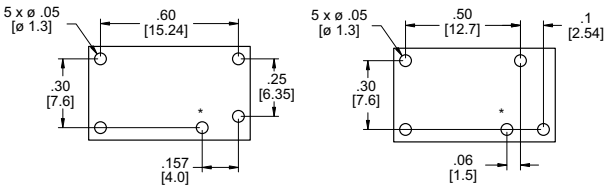


Type 1



Type 2

PC BOARD LAYOUT



Type 1 **Type 2**

Viewed toward terminals

*Not used on Form A version

WIRING DIAGRAMS

Type 1 **Type 2**

Viewed toward terminals

*Not used on Form A version

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

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