

AZ761

12 A SPDT MINIATURE POWER RELAY

FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed versions available
- 12 Amp switching
- AC and DC coils
- Class B (130°C) standard
- Class F (155°C) versions available
- Isolation spacing greater than 10 mm
- UL, CUR file E44211, VDE 40006031



CONTACTS

Arrangement	SPDT (1 Form C) SPST (1 Form A, 1 Form B)
Ratings	Resistive load: Max. switched power: 360 W or 3324 VA Max. switched current: 12 A Max. switched voltage: 150* VDC or 400 VAC *Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	12 A at 277 VAC resistive, 50k cycles (standard coils) [1] 12 A at 277 VAC resistive, 100k cycles (standard coils) [2] [3] 10 A at 250 VAC resistive, 100k cycles (sensitive coils) [1] 1/2 HP at 250 VAC (1 Form A) [1] 1/2 HP at 120VAC [1] 5mm spacing 1 pole 1/3 HP at 125 VAC (1 Form A) [1] B300 Pilot Duty [2] R300 Pilot Duty [2]
VDE	12 A at 250 VAC resistive, 30k cycles [1] and 20k cycles [2] Contact factory for additional VDE ratings [1] Silver cadmium oxide, [2] Silver tin oxide [3] Silver nickel
Material	Silver cadmium oxide or silver tin oxide or silver nickel Gold plating available
Resistance	< 50 milliohms initially (using 6 V 1 A method)

COIL

Power At Pickup Voltage (typical)	196 mW, (DC, standard) 141 mW, (DC, sensitive) 0.43 VA (AC)
Max. Continuous Dissipation	1.7 W at 20°C (68°F) ambient
Temperature Rise	26°C (47°F) at nominal coil voltage 17°C (31°F) at nominal coil voltage, sensitive coil
Max. Temperature	130°C (266°F) Class B 155°C (311°F) Class F

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 12 A 240 VAC Res.
Operate Time (typical)	7 ms at nominal coil voltage
Release Time (typical)	3 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
Insulation Resistance	1000 megohms min. at 20°C 500 VDC 50% RH
Dropout	Greater than 10% of nominal coil voltage (DC) Greater than 15% of nominal coil voltage (AC)
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 100°C (212°F)
Storage	-40°C (-40°F) to 105°C (221°F) sensitive coil -40°C (-40°F) to 130°C (266°F) Class B -40°C (-40°F) to 155°C (311°F) Class F
Vibration	0.062" DA at 10–55 Hz
Shock	10 g
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	14 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.

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RELAY ORDERING DATA

COIL SPECIFICATIONS – 12 A RATING - DC COIL				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
5	3.5	10.2	62	AZ761-1C-5D	AZ761-1C-5DE
6	4.2	12.3	90	AZ761-1C-6D	AZ761-1C-6DE
12	8.4	24.7	360	AZ761-1C-12D	AZ761-1C-12DE
18	12.6	37.0	810	AZ761-1C-18D	AZ761-1C-18DE
24	16.8	49.4	1,440	AZ761-1C-24D	AZ761-1C-24DE
48	33.6	98.0	5,760	AZ761-1C-48D	AZ761-1C-48DE
60	42.0	112.9	7500	AZ761-1C-60D	AZ761-1C-60DE
110	77.0	206.9	25,200	AZ761-1C-110D	AZ761-1C-110DE

COIL SPECIFICATIONS - SENSITIVE COIL – 10 A RATING - DC COIL				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
5	3.8	13.0	100	AZ761-1C-5DS	AZ761-1C-5DSE
6	4.5	15.6	144	AZ761-1C-6DS	AZ761-1C-6DSE
12	9.0	31.3	576	AZ761-1C-12DS	AZ761-1C-12DSE
18	13.5	46.9	1296	AZ761-1C-18DS	AZ761-1C-18DSE
24	18.0	62.6	2304	AZ761-1C-24DS	AZ761-1C-24DSE
48	36.0	125.2	9216	AZ761-1C-48DS	AZ761-1C-48DSE
60	45.0	147.8	12867	AZ761-1C-60DS	AZ761-1C-60DSE

When suffix "E" is specified for Epoxy Seal, refer to AZ "Relay Technical Notes" on AZ website - Product Resources. Consult factory for other PCB process conditions that may apply.

COIL SPECIFICATIONS - AC COIL					ORDER NUMBER*	
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Coil Current (mA)	Coil Resistance	Unsealed	Sealed
24	18.0	31.2	31.6	350 $\pm 10\%$	AZ761-1C-24AF	AZ761-1C-24AEF
115	86.3	149.5	6.6	8,100 $\pm 15\%$	AZ761-1C-115AF	AZ761-1C-115AEF
230	172.5	299.0	3.2	32,500 $\pm 15\%$	AZ761-1C-230AF	AZ761-1C-230AEF

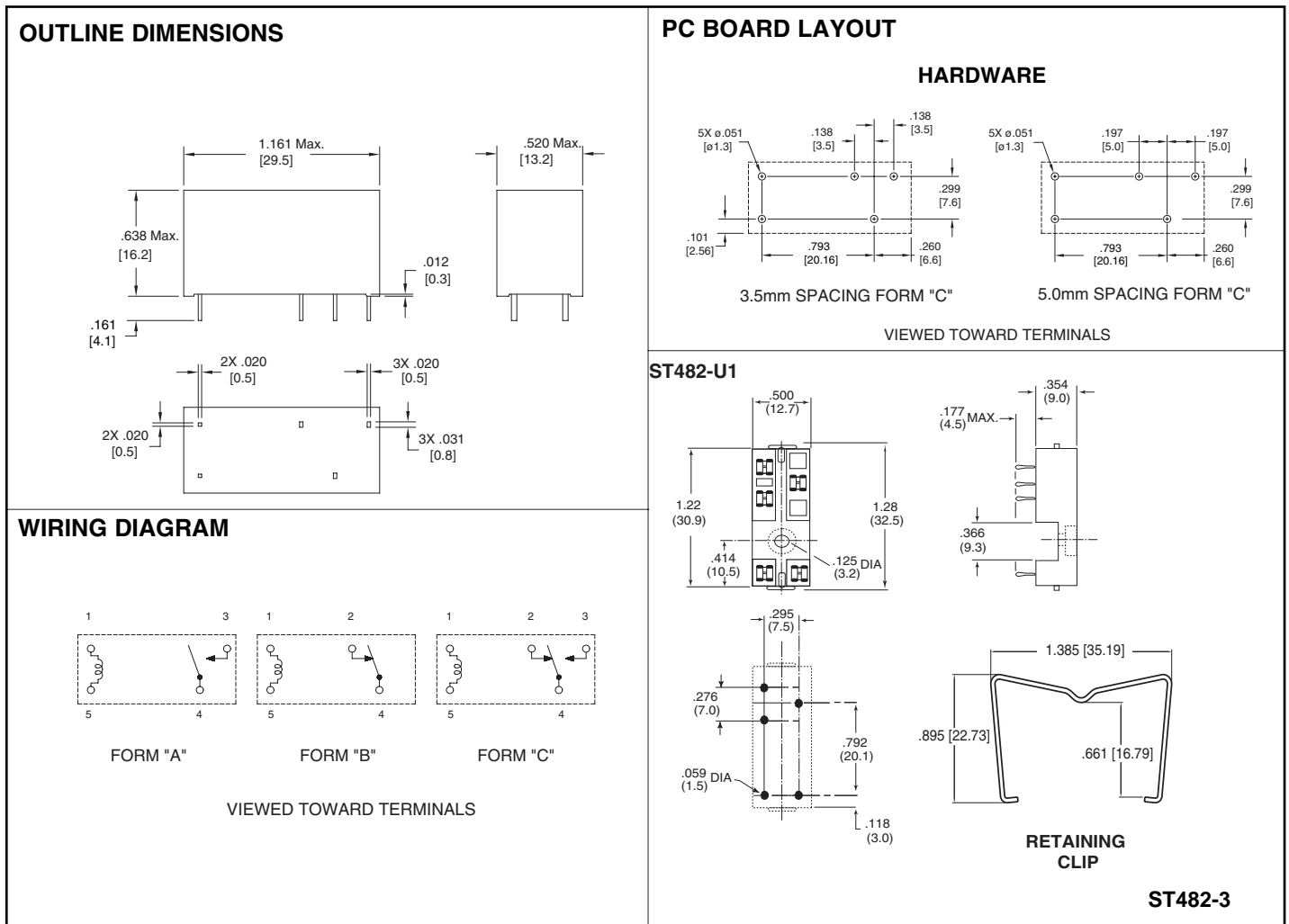
Substitute "1A" or "1B" in place of "1C" for Form A or B respectively. Add suffix "E" to "1A" or "1B" or "1C" for silver tin oxide contacts. Add suffix "B" to "1A" or "1B" or "1C" for silver nickel contacts. Add suffix "A" for gold plated contacts. *Add suffix "K" for 5 mm pin spacing version. Add suffix "F" for Class F version (DC coils only).

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HARDWARE ORDERING DATA

DESCRIPTION	ORDER NUMBER	DESCRIPTION	ORDER NUMBER
Socket	ST482-U1	Retainer	ST482-3

MECHANICAL DATA



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