AZ940

10 AMP MINIATURE POWER RELAY

FEATURES

- 10 Amp switching capability
- 4 kV dielectric strength
- Epoxy sealed version available
- UL, CUR file E44211
- VDE certificate 134326

CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 150 W or 2770 VA Max. switched current: 10 A (N.O.), 3 A (N.C.) Max. switched voltage: 150 VDC* or 400 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load **UL**	Normally open contact (N.O.) 10 A at 125 VAC, General Use, 100k cycles [1][2][3] 10 A at 277 VAC, cos phi 0.4, 10k cycles [1][2] 5 A at 250 VAC, General Use, 100k cycles [1][2][3] 5 A at 30 VDC, resistive, 100k cycles [1][2][3] 4 A at 120 VAC, resistive,100k cycles [3] 1 A at 120 VAC, tungsten, 6k cycles [3] $^1/_{10}$ HP at 125 VAC, 100k cycles [1][2] $^1/_6$ HP at 250 VAC, 100k cycles [1][2] 2.5 FLA / 15 LRA at 120 VAC, 6k cycles [3] Normally closed contact (N.C.) 3 A at 250 VAC general use, 100k cycles [1][2][3] 3 A at 30 VDC resistive, 100k cycles [1][2][3]
VDE	1 Form A 5 A at 250 VAC, 100k cycles @ 85°C [2][3] 5 A at 250 VAC, 75k cycles @ 70°C [1] 1 Form C, normally open contact (N.O.) 5 A at 250 VAC, 100k cycles @ 70°C [2][3] 5 A at 250 VAC, 75k cycles @ 75°C [1] 1 Form C, normally closed contact (N.C.) 3 A at 250 VAC, 100k cycles @ 70°C [2][3] 3 A at 250 VAC, 75k cycles @ 75°C [1]
Material	Silver cadmium oxide [1], silver nickel [2], silver tin oxide [3], gold plating available
Resistance	< 100 milliohms initially (at 6 V, 1 A, voltage drop method)

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 10 A 250 VAC Res.
Operate Time (max.)	8 ms at nominal coil voltage
Release Time (max.)	5 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
Insulation Resistance	1 x 10^9 ohms minimum at 500 VDC
Dropout	Greater than 5% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -40°C (-40°F) to 90°C (194°F) Class B -40°C (-40°F) to 110°C (230°F) Class F -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" (1.5 mm) DA at 10–55 Hz
Shock **Operating** **Mechanical**	10 g for 11 ms 1/2 sine pulse (no contact opening >100 usec) 100 g for 11 ms 1/2 sine pulse
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	7 grams
Packing unit in pcs	100 per styrofoam tray / 1000 per cartonbox

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	40°C (72°F) at nominal coil voltage (standard coil) 20°C (36°F) at nominal coil voltage (sensitive coil)
Temperature	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

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RELAY ORDERING DATA

STANDARD COIL					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10	Form A (SPST)	Form C (SPDT)
3	2.3	4.7	20	AZ940-1A-3D	AZ940-1C-3D
5	3.8	7.7	55	AZ940-1A-5D	AZ940-1C-5D
6	4.5	9.4	80	AZ940-1A-6D	AZ940-1C-6D
9	6.8	14.0	180	AZ940-1A-9D	AZ940-1C-9D
12	9.0	18.7	320	AZ940-1A-12D	AZ940-1C-12D
18	13.5	28.1	720	AZ940-1A-18D	AZ940-1C-18D
24	18.0	37.5	1,280	AZ940-1A-24D	AZ940-1C-24D

* “1A” or ”1C” denote silver cadmium contacts.
Substitute “1AB” or “1CB” in place of “1A” or ”1C” to indicate silver nickel contacts.
Substitute “1AE” in place of “1A” to indicate silver tin 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.
Add suffix “F” for Class F.

SENSITIVE COIL				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10%	Form A (SPST)
3	2.3	7.0	45	AZ940-1A-3DS
5	3.8	11.7	125	AZ940-1A-5DS
6	4.5	14.0	180	AZ940-1A-6DS
9	6.8	20.9	400	AZ940-1A-9DS
12	9.0	28.1	720	AZ940-1A-12DS
18	13.5	41.9	1,600	AZ940-1A-18DS
24	18.0	55.5	2,800	AZ940-1A-24DS

* “1A” denote silver cadmium contacts.
Substitute “1AB” in place of “1A” to indicate silver nickel contacts.
Substitute "1AE" in place of "1A" to indicate silver tin 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.
Add suffix “F” for class F.

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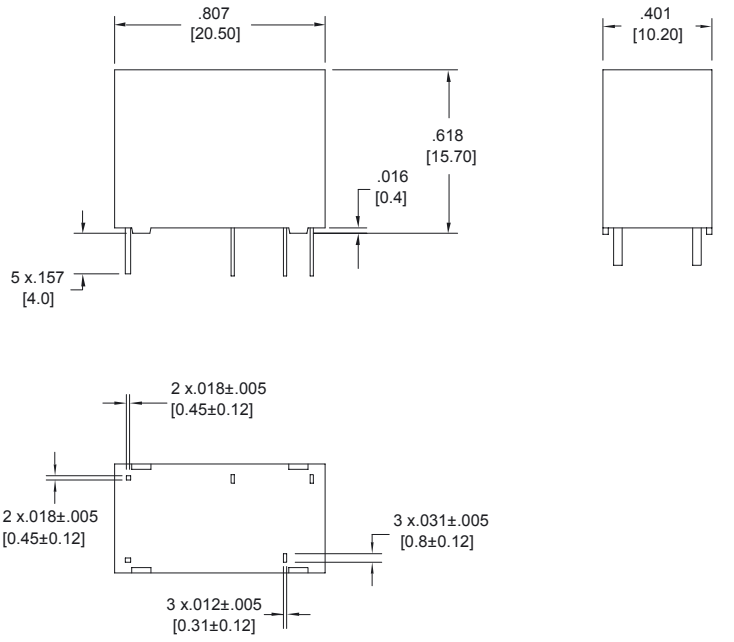
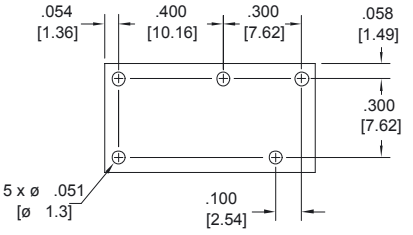
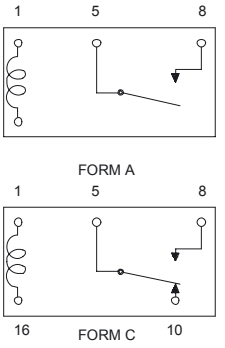
MECHANICAL DATA



PC BOARD LAYOUT



WIRING DIAGRAM



VIEWED TOWARD TERMINALS

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

PHONE: (949) 831-5000 www.azettler.com E-MAIL: SALES@AZETTLER.COM