AZ942

16 AMP MINIATURE PC BOARD RELAY

FEATURES

- Extremely low cost
- High switching capacity — 16 Amps
- DC coils to 48 VDC
- UL, CUR file E44211; VDE file 6820 ⚠5
- Class B insulation for high temperature operation
- Class F insulation available

CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load
Medium Duty	Max. switched power: 150 W or 2770 VA Max. switched current: 10 A Max. switched voltage: 30 VDC or 300 VAC **UL Rating**: 5 A at 30 VDC 10 A at 277 VAC 1/3 HP at 125 VAC (1 Form A) 2.9 A 125 VAC pilot duty (1 Form A)
Heavy Duty	Max. switched power: 480 W or 4000 VA Max. switched current: 16 A Max. switched voltage: 30 VDC or 300 VAC **UL Rating:** 12 A at 28 VDC 12 A at 277 VAC 16A at 250 VAC 2.0 A at 240 VAC pilot duty
Material	Silver alloy
Resistance	<100 milliohms initially (24 V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	230 mW
Max Continuous Dissipation	Class B: 1.7 W at 20°C (68°F) ambient Class F: 2.2 W at 20°C (68°F) ambient
Temperature Rise	25°C (45°F) at nominal coil voltage
Temperature	Class B: Max. 130°C (266°F) Class F: Max. 155°C (311°F)

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than “Must Operate” value.
3. Unsealed relays should not be dip cleaned.
4. Specifications subject to change without notice.

⚠5 AZ942-1CT unsealed version is VDE approved at 5 A, 250 VAC, 50,000 operations. AZ942-1CT sealed or unsealed version is VDE approved at 7 A, 250 VAC, 6,000 operations.

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations $1x10^7$ 1×10^5 at 10A, 277 VAC
Operate Time (typical)	10 ms at nominal coil voltage
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	1750 Vrms contact to coil 1000 Vrms across contacts
Insulation Resistance	100 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage Class B: -40°C(-40°F) to 105°C(221°F) Class F: -40°C(-40°F) to 130°C(266°F) Class B: -55°C(-67°F) to 130°C(266°F) Class F: -55°C(-67°F) to 155°C(311°F)
Vibration	0.062" DA at 10–55Hz
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	13 g

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RELAY ORDERING DATA

STANDARD RELAYS: Medium Duty Type (10 Amp Contact)					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ±10%	Must Operate VDC	Unsealed	Sealed
3	6.5	25	2.4	AZ942–1CH–3D	AZ942–1CH–3DE
5	11.0	70	4.0	AZ942–1CH–5D	AZ942–1CH–5DE
6	13.0	100	4.8	AZ942–1CH–6D	AZ942–1CH–6DE
9	20.0	225	7.2	AZ942–1CH–9D	AZ942–1CH–9DE
12	26.0	400	9.6	AZ942–1CH–12D	AZ942–1CH–12DE
24	52.0	1,600	19.2	AZ942–1CH–24D	AZ942–1CH–24DE
48	104.0	6,200	38.4	AZ942–1CH–48D	AZ942–1CH–48DE

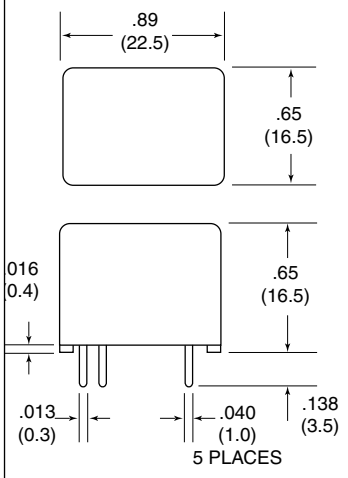
*Substitute “1AT” in place of “1CH” to indicate 1 Form A contact. To indicate Class F version, add suffix “F.”

RELAY ORDERING DATA

STANDARD RELAYS: Heavy Duty Type (16 Amp Contact)					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ±10%	Must Operate VDC	Unsealed	Sealed
3	6.5	25	2.4	AZ942–1CT–3D	AZ942–1CT–3DE
5	11.0	70	4.0	AZ942–1CT–5D	AZ942–1CT–5DE
6	13.0	100	4.8	AZ942–1CT–6D	AZ942–1CT–6DE
9	20.0	225	7.2	AZ942–1CT–9D	AZ942–1CT–9DE
12	26.0	400	9.6	AZ942–1CT–12D	AZ942–1CT–12DE
24	52.0	1,600	19.2	AZ942–1CT–24D	AZ942–1CT–24DE
48	104.0	6,200	38.4	AZ942–1CT–48D	AZ942–1CT–48DE

*Substitute “1AW” in place of “1CT” to indicate 1 Form A contact. To indicate Class F version, add suffix “F.”

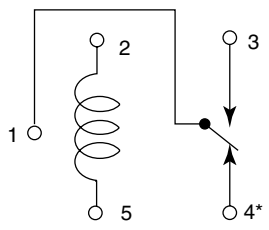
MECHANICAL DATA



TERMINAL DIMENSIONS

Terminal Number	Dimensions
1	.013 X .040
2, 5	.013 X .036
3, 4	.013 X .040

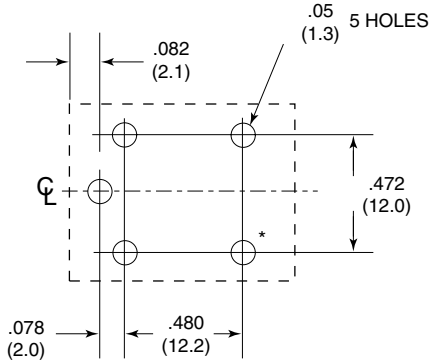
WIRING DIAGRAM



Viewed toward terminals

*Not used on Form A relay

PC BOARD LAYOUT



Viewed toward terminals

*Not used on Form A relay

Dimensions in inches with metric equivalents in parentheses. Tolerance: ±0.010"

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