

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
- 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 (SPDT) 2.0 A at 240 VAC Pilot Duty
Material	Medium Duty: Silver cerium Heavy Duty: Silver tin oxide
Resistance	<100 milliohms initially (24 V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	230 mW
Max Continuous Dissipation	Class B: 1.8 W at 20°C (68°F) ambient Class F: 2.4 W at 20°C (68°F) ambient
Temperature Rise	23°C (42°F) at nominal coil voltage
Temperature	Class B: Max. 130°C (266°F) Class F: Max. 155°C (311°F)

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1x10 ⁷ 1 x 10 ⁵ at 10 A 277 VAC Res.
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 100°C(212°F) Class F: -40°C(-40°F) to 120°C(248°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

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.

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RELAY ORDERING DATA

STANDARD RELAYS: Medium Duty Type (10 Amp Contact)				ORDER NUMBER*	
COIL SPECIFICATIONS				Unsealed	Sealed
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$		
3	2.4	6.7	25	AZ942-1CH-3D	AZ942-1CH-3DE
5	4.0	11.2	70	AZ942-1CH-5D	AZ942-1CH-5DE
6	4.8	13.4	100	AZ942-1CH-6D	AZ942-1CH-6DE
9	7.2	20.1	225	AZ942-1CH-9D	AZ942-1CH-9DE
12	9.6	26.8	400	AZ942-1CH-12D	AZ942-1CH-12DE
18	14.4	40.2	900	AZ942-1CH-18D	AZ942-1CH-18DE
24	19.2	53.6	1,600	AZ942-1CH-24D	AZ942-1CH-24DE
48	38.4	107.3	6,400	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)				ORDER NUMBER*	
COIL SPECIFICATIONS				Unsealed	Sealed
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$		
3	2.4	6.7	25	AZ942-1CT-3D	AZ942-1CT-3DE
5	4.0	11.2	70	AZ942-1CT-5D	AZ942-1CT-5DE
6	4.8	13.4	100	AZ942-1CT-6D	AZ942-1CT-6DE
9	7.2	20.1	225	AZ942-1CT-9D	AZ942-1CT-9DE
12	9.6	26.8	400	AZ942-1CT-12D	AZ942-1CT-12DE
18	14.4	40.2	900	AZ942-1CT-18D	AZ942-1CT-18DE
24	19.2	53.6	1,600	AZ942-1CT-24D	AZ942-1CT-24DE
48	38.4	107.3	6,400	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

PC BOARD LAYOUT

WIRING DIAGRAM

Viewed toward terminals

*Not used on Form A relay

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