

# AZ948

## 16 AMP LOW PROFILE POWER RELAY

### FEATURES

- High power switching (4000 VA)
- High sensitivity, 128 mW pickup
- Low profile (less than .5" height)
- SPST (1 Form A)
- Epoxy sealed version available
- DC coils up to 100 VDC
- UL file E44211; CSA file LR 702514



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A)
<b>Ratings Standard</b>	<b>Resistive load:</b> Max. switched power: 300 W, 2500 VA Max. switched current: 10 A Max. switched voltage: 250 VAC/125 VDC
<b>Heavy Duty</b>	Max. switched power: 480 W, 4000 VA Max. switched current: 16 A Max. switched voltage: 250 VAC/125 VDC* <small>*Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.</small>
<b>Rated Load UL</b>	Standard: 10 A at 30 VDC/250 VAC Heavy Duty: 10 A at 30 VDC 16 A at 250 VAC
<b>Min. Load</b>	5 VDC, 0.1 A
<b>Material</b>	Silver alloy
<b>Resistance</b>	< 50 milliohms initially (24 V, 1 A voltage drop method)

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at rated load
<b>Operate Time (typical)</b>	10 ms at nominal coil voltage
<b>Release Time (typical)</b>	4 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1500 Vrms coil to contact 1000 Vrms contact to contact
<b>Insulation Resistance</b>	100 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage 100 V coil ≥ 6 VDC
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -40°C (-40°F) to 70°C (158°F) 3-48 V coils -40°C (-48°F) to 60°C (140°F) 100 V coil -40°C (-40°F) to 115°C (239°F)
<b>Vibration</b>	0.062" DA at 10–55 Hz
<b>Shock</b>	10 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	8 grams

### COIL

<b>Power At Pickup Voltage (typical)</b>	200 mW
<b>Max. Continuous Dissipation</b>	1.8 W at 20°C (68°F) 1.3 W at 40°C (104°F)
<b>Temperature Rise</b>	16°C (29°F) at nominal coil voltage
<b>Temperature</b>	Max. 115°C (239°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.

**ZETTLER electronics**

Logistic Design (UK) Limited. Unit 3, Eagle Centre Way, Luton LU4 9US www.zettlerrelay.com sales@zettlerrelay.com  
Telephone +44 (0) 1582 599 600 Fax +44 (0) 1582 599 700

# AZ948

## RELAY ORDERING DATA

COIL SPECIFICATIONS SPST-NO (1 Form A) Standard Contact: 10A				ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
5	4.0	15.0	125	AZ948-1A-5D	AZ948-1A-5DE
6	4.8	18.0	180	AZ948-1A-6D	AZ948-1A-6DE
9	7.2	27.0	405	AZ948-1A-9D	AZ948-1A-9DE
12	9.6	36.0	720	AZ948-1A-12D	AZ948-1A-12DE
24	19.2	72.0	2,880	AZ948-1A-24D	AZ948-1A-24DE
48	38.4	144.0	11,520	AZ948-1A-48D	AZ948-1A-48DE
100	48.0	110.0	18,000	AZ948-1A-100D	AZ948-1A-100DE

COIL SPECIFICATIONS SPST-NO (1 Form A) Heavy Duty Contact: 16A				ORDER NUMBER	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
5	4.0	15.0	125	AZ948-1AT-5D	AZ948-1AT-5DE
6	4.8	18.0	180	AZ948-1AT-6D	AZ948-1AT-6DE
9	7.2	27.0	405	AZ948-1AT-9D	AZ948-1AT-9DE
12	9.6	36.0	720	AZ948-1AT-12D	AZ948-1AT-12DE
24	19.2	72.0	2,880	AZ948-1AT-24D	AZ948-1AT-24DE
48	38.4	144.0	11,520	AZ948-1AT-48D	AZ948-1AT-48DE
100	48.0	110.0	18,000	AZ948-1AT-100D	AZ948-1AT-100DE

## MECHANICAL DATA

Top view dimensions: .866 (22.0) width, .630 (16.0) width, .015 (0.4) height, .413 (10.5) height, .157 (4.0) height.

Side view dimensions: .500 (12.7) height, .400 (10.16) width.

Terminal view labels: 2, 1, COM, 3, 4, NO.

### PC BOARD LAYOUT

Dimensions: .700 (17.78) width, .035 (.9) height, .500 (12.7) height, .400 (10.16) width, .051 (1.3) height (2 places).

### WIRING DIAGRAM

1 Form A

Viewed toward terminals

Viewed toward terminals

Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm 0.010$ "

**ZETTLER** electronics

Logistic Design (UK) Limited. Unit 3, Eagle Centre Way, Luton LU4 9US [www.zettlerrelay.com](http://www.zettlerrelay.com) [sales@zettlerrelay.com](mailto:sales@zettlerrelay.com)  
 Telephone +44 (0) 1582 599 600 Fax +44 (0) 1582 599 700

2000-01-03