

# AZ942H

## 12 AMP MINIATURE PC BOARD RELAY



### FEATURES

- Extremely low cost
- High switching capacity — 12 Amps
- DC coils to 48 VDC
- Class B insulation for high temperature operation
- Class F insulation available
- Meets IEEE 587 6 kV lightning surge
- UL, CUR file E43203
- VDE approved models available, please contact the factory

### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load
<b>Form A</b>	Max. switched power: 196 W or 2770 VA Max. switched current: 12 A Max. switched voltage: 150 VDC* or 300 VAC <b>UL Rating:</b> 10 A at 28 VDC, 100k cycles [1] [2] 10 A at 277 VAC, 100k cycles [1] 10 A at 277 VAC, 25k cycles [2]
<b>Form C</b>	Max. switched power: 196 W or 1939 VA Max. switched current: 12 A Max. switched voltage: 150 VDC* or 300 VAC <b>UL Rating:</b> 7 A at 28 VDC, 100k cycles [1] [2] 12 A at 125 VAC, 100k cycles [1] 12 A at 125 VAC, 100k cycles N.O. [2] 12 A at 125 VAC, 50k cycles N.C. [2] 7 A at 277 VAC, 100k cycles [1] [2] 4 FLA / 4 LRA at 240VAC 100k cycles, N.O. [2] 2 FLA / 4 LAR at 240 VAC 100k cycles, N.C. [2] [1] Silver cadmium oxide [2] Silver tin oxide
	*NOTE: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Material</b>	Silver cadmium oxide or silver tin oxide
<b>Resistance</b>	<100 milliohms initially (24 V, 1 A voltage drop method)

### COIL

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

### GENERAL DATA

<b>Life Expectancy</b>	Minimum operations
<b>Mechanical</b>	1x10 <sup>7</sup>
<b>Electrical</b>	1 x 10 <sup>5</sup> at 10A 277 VAC Res.
<b>Operate Time (typical)</b>	10 ms at nominal coil voltage
<b>Release Time (typical)</b>	5 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	3000 Vrms contact to coil 1000 Vrms across contacts
<b>Insulation Resistance</b>	100 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature</b>	At nominal coil voltage
<b>Operating</b>	Class B: -40°C(-40°F) to 100°C(212°F) Class F: -40°C(-40°F) to 120°C(248°F)
<b>Storage</b>	Class B: -55°C(-67°F) to 130°C(266°F) Class F: -55°C(-67°F) to 155°C(311°F)
<b>Vibration</b>	0.062" DA at 10–55Hz
<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>	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.



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

5/15/05W

# AZ942H

## RELAY ORDERING DATA

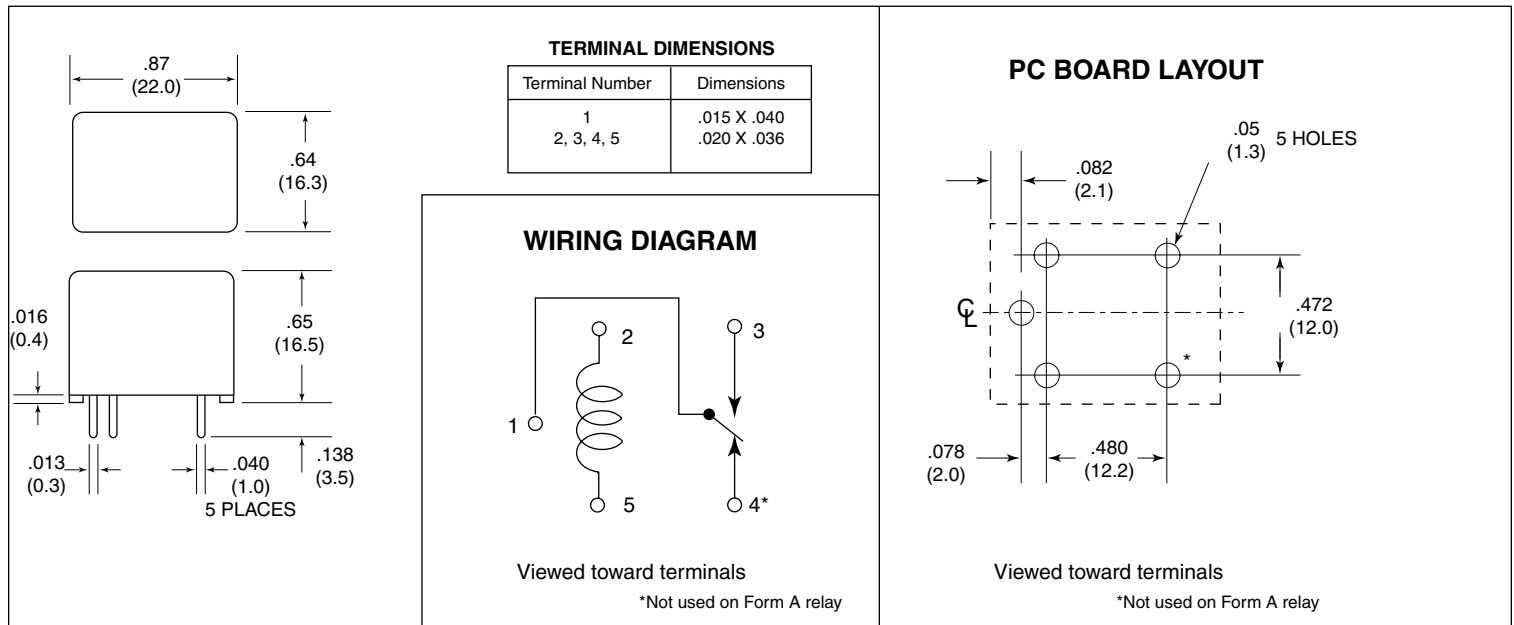
STANDARD RELAYS				ORDER NUMBER*	
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max Continuous VDC	Coil Resistance $\pm 10\%$	Form A (SPST-N.O.)	Form C (SPDT)
3	2.4	6.5	25	AZ942H-1A-3D	AZ942H-1C-3D
5	4.0	11.0	70	AZ942H-1A-5D	AZ942H-1C-5D
6	4.8	13.0	100	AZ942H-1A-6D	AZ942H-1C-6D
9	7.2	20.0	225	AZ942H-1A-9D	AZ942H-1C-9D
12	9.6	26.0	400	AZ942H-1A-12D	AZ942H-1C-12D
24	19.2	52.0	1,600	AZ942H-1A-24D	AZ942H-1C-24D
48	38.4	104.0	6,200	AZ942H-1A-48D	AZ942H-1C-48D

\*For epoxy sealed versions, add suffix "E". For silver tin oxide contacts add suffix "T". To indicate Class F version, add suffix "F".

## IEEE STANDARD 587-1980 (ANSI/IEEE C62.41-1980) SURGE VOLTAGE WITHSTAND RATING

Test	Rating	Description
1.2 x 50 usec positive pulse	6 kV	Contact to coil - 5 pulses
1.2 X 50 usec negative pulse	6 kV	Contact to coil - 5 pulses
0.5 us 100 kHz ring wave	6 kV	Contact to coil - 5 waves

## MECHANICAL DATA



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



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