

# AZ943W

## 10 AMP MINIATURE PCB RELAY

### FEATURES

- 10 Amp switching capability
- Wide contact gap of  $\geq 0.8$  mm
- Available in SPST-N.O. and SPDT versions
- Compact size, low seated height
- Flux tight and sealed versions available
- UL Class F insulation system (155°C) standard
- RoHS compliant
- UL / CUR - intended



Illustration similar



### CONTACTS

<b>Arrangement</b>	SPST-N.O. (1 Form A), SPDT (1 Form C)
<b>Ratings (max.)</b>	(resistive load) switched power 300 W or 2770 VA switched current 10 A switched voltage 30 VDC* or 277 VAC
<b>Rated Loads</b>	UL/CUR intended
<b>Contact material</b>	AgSnO <sub>2</sub> (silver tin oxide)
<b>Contact gap</b>	$\geq 0.8$ mm
<b>Initial resistance</b>	$< 100$ m $\Omega$ (1 A / 24 V - voltage drop method)

### COIL

<b>Nominal coil DC voltages</b>	6, 12, 18, 24
<b>Dropout voltage</b>	$\geq 10\%$ of nominal coil voltage
<b>Coil power</b>	nominal 540 mW at pickup voltage 405 mW max. cont. dissipation 1040 mW at 20°C (68°F)
<b>Temperature Rise</b>	85 K (153°F) at nominal coil voltage
<b>Max. temperature</b>	155°C (311°F) class 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.

### GENERAL DATA

<b>Life Expectancy</b>	(minimum operations)
mechanical	$1 \times 10^6$
electrical	$2 \times 10^4$ at 10 A, 277 VAC, 70°C, resistive load N.O. $2 \times 10^3$ at 10 A, 277 VAC, 70°C, res. load N.C. $5 \times 10^3$ at 5 A, 277 VAC, 70°C, res. load
1 Form A	
1 Form C	
<b>Operate Time</b>	10 ms (max.) at nominal coil voltage
<b>Release Time</b>	5 ms (max.) at nominal coil voltage, without coil suppression
<b>Dielectric Strength</b>	(at sea level for 1 min.) 1500 V <sub>RMS</sub> coil to contact 1600 V <sub>RMS</sub> between open contacts
<b>Insulation Resistance</b>	100 M $\Omega$ (min.) at 20°C, 500 VDC, 50% RH
<b>Temperature Range</b>	(at nominal coil voltage) operating -40°C (-40°F) to 70°C (158°F)
<b>Vibration resistance</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock resistance</b>	10 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b>	max. temperature 270 °C (518°F) max. time 5 seconds
<b>Cleaning</b>	max. solvent temp. 80°C (176°F) max. immersion time 30 seconds
<b>Dimensions</b>	length 19.0 mm (0.748") width 15.3 mm (0.600") height 16.0 mm (0.630")
<b>Weight</b>	10 grams
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box
<b>Compliance</b>	UL 508, IEC 61810-1, RoHS, REACH

**ZETTLER electronics GmbH** - A ZETTLER GROUP Company

Junkersstr. 3, D-82178 Puchheim, Germany

phone: +49 89 800 97-0  
fax: +49 89 800 97-200

office@ZETTLERelectronics.com  
www.ZETTLERelectronics.com

This product specification to be used only together with the application notes which can be downloaded from [www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf](http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf)

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## COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm $\pm$ 10%
6	4.5	9.0	65
12	9.0	18.0	270
18	13.5	27.0	600
24	18.0	36.0	1070

## ORDERING DATA

AZ943W-H-DF

**Sealing option**  
 nil: non sealed  
 E: sealed version

**Nominal coil voltage**  
 see coil voltage specifications table

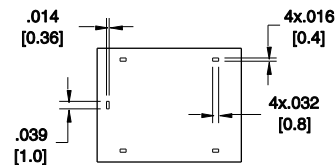
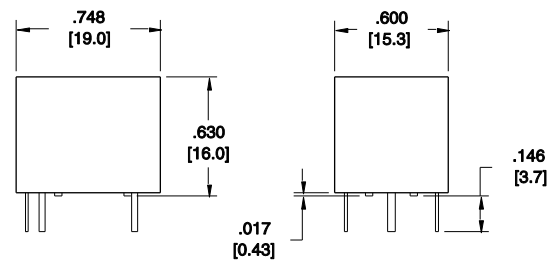
**Contact arrangement**  
 1A: 1 Form A (SPST-N.O.)  
 1C: 1 Form C (SPDT)

### Example ordering data

AZ943W-1AH-9DF 1 Form A, 9 VDC nominal coil voltage  
 AZ943W-1CH-12DEF 1 Form C, 12 VDC nominal coil voltage, sealed version

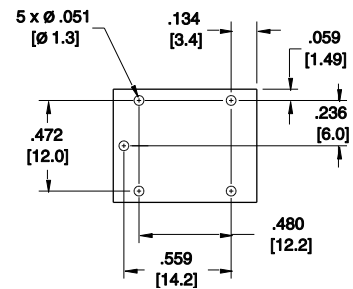
## MECHANICAL DATA

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



## PC BOARD LAYOUT

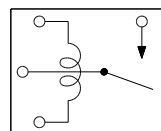
Dimensions in inches with metric equivalents in parentheses.  
 Viewed towards terminals.



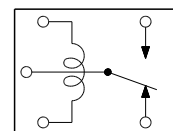
## WIRING DIAGRAMS

Viewed towards terminals.

1 Form A



1 Form C



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