

## 15 AMP MINIATURE PCB RELAY

### FEATURES

- 15 Amp switching capability
- Available in SPST-N.O. and SPDT versions
- Flux tight and sealed versions available
- UL Class F insulation system (155°C) available
- RoHS compliant
- UL / CUR file E43203
- TÜV file R50161256
- VDE certificate 40047375



Illustration similar



### CONTACTS

<b>Arrangement</b>	SPST-N.O. (1 Form A), SPDT (1 Form C)
<b>Ratings (max.)</b> switched power switched current switched voltage	(resistive load) 300 W or 2770 VA 15 A AC, 10 A DC 30 VDC* or 300 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Loads</b> UL/CUR	10 A at 277 VAC, gen. use, 70°C, 100k cycles 10 A at 30 VDC, resistive, 70°C, (N.O.) 1.5 HP at 125 VAC, 70°C, 6k cycles, (N.O.) <b>1 Form A only</b> 15 A at 125 VAC, gen. use, 70°C, 6k cycles 12 A at 120 VAC, resistive, 70°C, 6k cycles 8 A at 125 VAC, tungsten, 70°C <b>1 Form C only</b> 10 A at 120 VAC, res., 70°C, 100k cycles, (N.O.) 10 A at 120 VAC, res., 70°C, 6k cycles, (N.C.) 7 A at 30 VDC, resistive, 70°C, (N.C.)
TÜV	12 A at 125 VAC, resistive, 85°C, 10k cycles 10 A at 277 VAC, resistive, 85°C, 10k cycles 5 A at 250 VAC, resistive, 85°C, 25k cycles <b>1 Form A only</b> 10 A at 277 VAC, resistive, 85°C, 25k cycles
VDE	10 A at 250 VAC, resistive, 70°C, 50k cycles (N.O.) 12 A at 125 VAC, resistive, 25°C, 50k cycles (N.O.) <b>1 Form C only</b> 5 A at 250 VAC, res., 70°C, 50k cycles, (N.C.)
<b>Contact material</b>	AgSnO <sub>2</sub> (silver tin oxide)
<b>Initial resistance</b>	< 100 mΩ (1 A / 24 V - voltage drop method)

### COIL

<b>Nominal coil DC voltages</b>	5, 6, 9, 12, 18, 24, 36, 48
<b>Dropout voltage</b>	≥ 10% of nominal coil voltage
<b>Coil power</b> nominal at pickup voltage max. cont. dissipation	360 mW 203 mW 1.8 W at 20°C (68°F) class B 2.4 W at 20°C (68°F) class F
<b>Temperature Rise</b>	32 K (58°F) at nominal coil voltage
<b>Max. temperature</b>	130°C (266°F) class B 155°C (311°F) class F

### GENERAL DATA

<b>Life Expectancy</b> mechanical electrical	(minimum operations) 1 x 10 <sup>6</sup> 1 x 10 <sup>5</sup> at 10 A, 277 VAC, resistive
<b>Operate Time</b> <b>Release Time</b>	10 ms (max.) at nominal coil voltage 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 1000 V <sub>RMS</sub> between open contacts
<b>Insulation Resistance</b>	100 MΩ (min.) at 20°C, 500 VDC, 50% RH
<b>Temperature Range</b> operating	(at nominal coil voltage) -40°C (-40°F) to 70°C (158°F) class B -40°C (-40°F) to 85°C (185°F) class F
<b>Vibration resistance</b> <b>Shock resistance</b>	0.062" (1.5 mm) DA at 10–55 Hz 10 g
<b>Enclosure</b> <b>Terminals</b>	P.B.T. polyester Tinned copper alloy, P. C.
<b>Soldering</b> max. temperature max. time	270 °C (518°F) 5 seconds
<b>Cleaning</b> max. solvent temp. max. immersion time	80°C (176°F) 30 seconds
<b>Dimensions</b> length width height	19.0 mm (0.748") 15.3 mm (0.600") 15.7 mm (0.615")
<b>Weight</b>	10 grams (approx.)
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box
<b>Compliance</b>	UL 508, IEC 61810-1, IEC 60335-1 (GWT), RoHS, REACH

### 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.

# AZ943

## COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm $\pm 10\%$
5	3.8	11.2	70
6	4.5	13.4	100
9	6.8	20.1	225
12	9.0	26.8	400
18	13.5	40.2	900
24	18.0	53.4	1600
36	27.0	80.1	3600
48	36.0	107.3	6400

## ORDERING DATA

AZ943-H-D

**Material option**  
 nil: standard version  
 GW: IEC 60335-1 (GWT) approved

**Coil wire**  
 nil: Class B coil wire  
 F: Class F coil wire

**Sealing option**  
 nil: non sealed, flux proof  
 E: sealed version

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

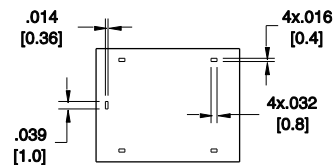
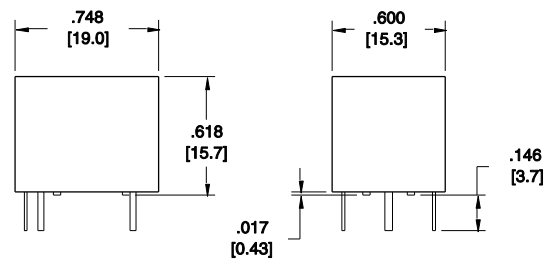
**Contact arrangement**  
 1A: 1 Form A (SPST-N.O.)  
 1C: 1 Form C (SPDT)

### Example ordering data

AZ943-1AH-9D	1 Form A, 9 VDC nominal coil voltage, non sealed, class B coil wire
AZ943-1CH-12DEF	1 Form C, 12 VDC nominal coil voltage, sealed version, class F coil wire
AZ943-1CH-24DFGW	1 Form C, 24 VDC nominal coil voltage, non sealed, class F coil wire, EN 60335-1 (GWT) approved

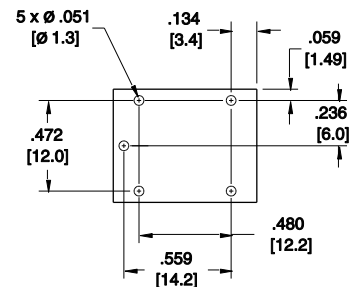
## MECHANICAL DATA

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



## PC BOARD LAYOUT

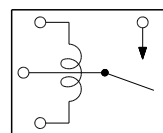
Dimensions in inches with metric equivalents in parentheses.  
 Viewed towards terminals.



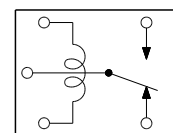
## WIRING DIAGRAMS

Viewed towards terminals.

1 Form A



1 Form C



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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)