

AZ943W

10 AMP MINIATURE PCB RELAY

FEATURES

- 10 Amp switching capability
- Wide contact gap of ≥ 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

Arrangement SPST-N.O. (1 Form A), SPDT (1 Form C)

Ratings (max.)
switched power 300 W or 2770 VA
switched current 10 A
switched voltage 30 VDC* or 277 VAC

* Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.

Rated Loads
UL/CUR

intended

Contact material AgSnO₂ (silver tin oxide)

Contact gap ≥ 0.8 mm

Initial resistance < 100 m Ω (1 A / 24 V - voltage drop method)

COIL

Nominal coil DC voltages 6, 12, 18, 24

Dropout voltage $\geq 10\%$ of nominal coil voltage

Coil power

nominal 540 mW
at pickup voltage 405 mW
max. cont. dissipation 1040 mW at 20°C (68°F)

Temperature Rise 85 K (153°F) at nominal coil voltage

Max. temperature 155°C (311°F) class F

GENERAL DATA

Life Expectancy (minimum operations)
mechanical 1×10^6

electrical
1 Form A 2×10^4 at 10 A, 277 VAC, 70°C, resistive load
N.O. 1 Form C 2×10^4 at 10 A, 277 VAC, 70°C, res. load
N.C. 5×10^3 at 5 A, 277 VAC, 70°C, res. load

Operate Time 10 ms (max.) at nominal coil voltage
Release Time 5 ms (max.) at nominal coil voltage, without coil suppression

Dielectric Strength (at sea level for 1 min.)
1500 V_{RMS} coil to contact

1600 V_{RMS} between open contacts

Insulation Resistance 100 M Ω (min.) at 20°C, 500 VDC, 50% RH

Temperature Range (at nominal coil voltage)
operating -40°C (-40°F) to 70°C (158°F)

Vibration resistance 0.062" (1.5 mm) DA at 10–55 Hz
Shock resistance 10 g

Enclosure P.B.T. polyester
Terminals Tinned copper alloy, P. C.

Soldering max. temperature 270 °C (518°F)
max. time 5 seconds

Cleaning max. solvent temp. 80°C (176°F)
max. immersion time 30 seconds

Dimensions
length 19.0 mm (0.748")
width 15.3 mm (0.600")
height 16.0 mm (0.630")

Weight 10 grams (approx.)

Packing unit in pcs 20 per plastic tube / 1000 per carton box

Compliance UL 508, IEC 61810-1, RoHS, REACH

AZ943W

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

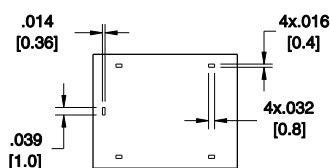
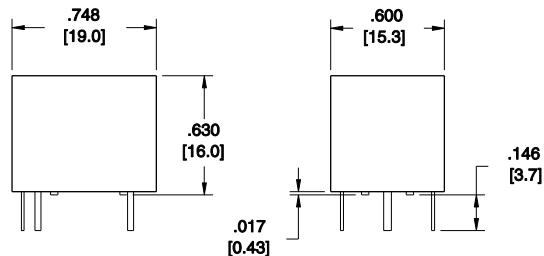
ORDERING DATA

AZ943W- H- D F

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)

MECHANICAL DATA

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



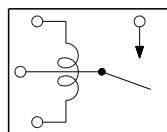
Example ordering data

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

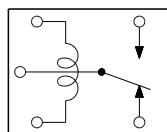
WIRING DIAGRAMS

Viewed towards terminals.

1 Form A

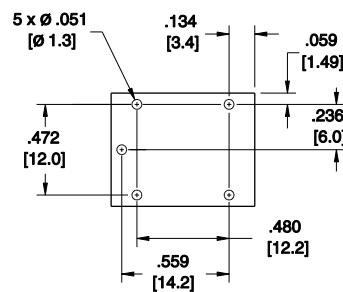


1 Form C



PC BOARD LAYOUT

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



NOTES

1. Specifications subject to change without notice.
2. All values at 20°C (68°F) unless otherwise stated.
3. Relay may pull in with less than "Must Operate" value.
4. Coil suppression circuits such as diodes, etc. in parallel to the coil will lengthen the release time.
5. Unsealed relays should not be dip cleaned.

DISCLAIMER

This product specification is to be used in conjunction with the application notes which can be downloaded from www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf

The specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.

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