

AZ943

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 E44211
- TÜV file R50161256
- VDE certificate 40047375



Illustration similar



CONTACTS

Arrangement	SPST-N.O. (1 Form A), SPDT (1 Form C)
Ratings (max.) 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.
Rated Loads 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.) 1 Form A only 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 1 Form C only 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 1 Form A only 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.) 1 Form C only 5 A at 250 VAC, res., 70°C, 50k cycles, (N.C.)
Contact material	AgSnO ₂ (silver tin oxide)
Initial resistance	< 100 mΩ (1 A / 24 V - voltage drop method)

COIL

Nominal coil DC voltages	5, 6, 9, 12, 18, 24, 36, 48
Dropout voltage	≥ 10% of nominal coil voltage
Coil power 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
Temperature Rise	32 K (58°F) at nominal coil voltage
Max. temperature	130°C (266°F) class B 155°C (311°F) class F

GENERAL DATA

Life Expectancy mechanical electrical	(minimum operations) 1 x 10 ⁶ 1 x 10 ⁵ at 10 A, 277 VAC, resistive
Operate Time Release Time	10 ms (max.) at nominal coil voltage 5 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength	(at sea level for 1 min.) 1500 V _{RMS} coil to contact 1000 V _{RMS} between open contacts
Insulation Resistance	100 MΩ (min.) at 20°C, 500 VDC, 50% RH
Temperature Range 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
Vibration resistance Shock resistance	0.062" (1.5 mm) DA at 10–55 Hz 10 g
Enclosure Terminals	P.B.T. polyester Tinned copper alloy, P. C.
Soldering max. temperature max. time	270 °C (518°F) 5 seconds
Cleaning max. solvent temp. max. immersion time	80°C (176°F) 30 seconds
Dimensions length width height	19.0 mm (0.748") 15.3 mm (0.600") 15.7 mm (0.615")
Weight	10 grams (approx.)
Packing unit in pcs	20 per plastic tube / 1000 per carton box
Compliance	UL 508, IEC 61810-1, IEC 60335-1 (GWT), RoHS, REACH

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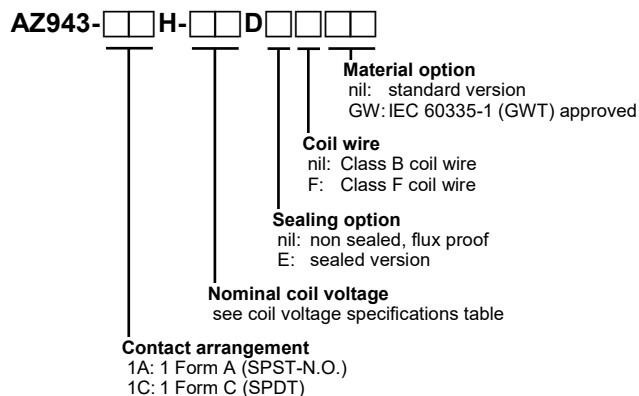
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COIL VOLTAGE SPECIFICATIONS

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

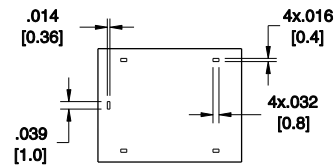
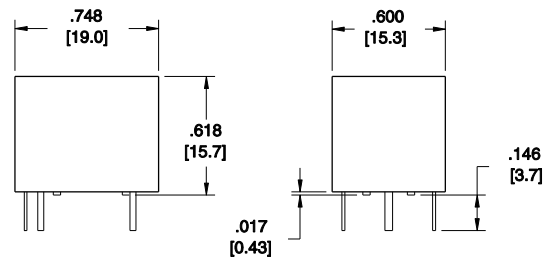


Example ordering data

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

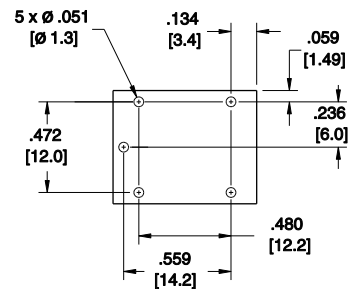
MECHANICAL DATA

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



PC BOARD LAYOUT

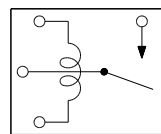
Recommendation for PC board layout.
 Dimensions in inches with metric equivalents in parentheses.
 Viewed towards terminals.



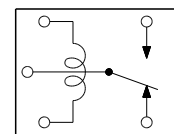
WIRING DIAGRAMS

Viewed towards terminals.

1 Form A



1 Form C



NOTES

- Specifications subject to change without notice.
- All values at 20°C (68°F) unless otherwise stated.
- Relay may pull in with less than "Must Operate" value.
- Coil suppression circuits such as diodes, etc. in parallel to the coil will lengthen the release time.
- 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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