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.)	(resistive load)
switched power	300 W or 2770 VA
switched current	15 A AC, 10 A DC
switched voltage	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	360 mW
at pickup voltage	203 mW
max. cont. dissipation	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	(minimum operations)
mechanical	1 x 10^6
electrical	1 x 10^5 at 10 A, 277 VAC, resistive
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 1000 V_{RMS} between open contacts
Insulation Resistance	100 MΩ (min.) at 20°C, 500 VDC, 50% RH
Temperature Range	(at nominal coil voltage)
operating	-40°C (-40°F) to 70°C (158°F) class B -40°C (-40°F) to 85°C (185°F) class 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	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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COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 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

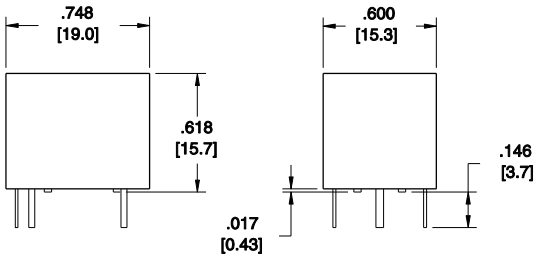
Contact arrangement
1A: 1 Form A (SPST-N.O.)
1C: 1 Form C (SPDT)

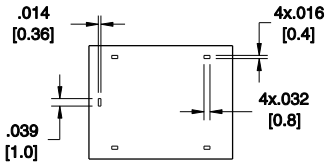
Example ordering data

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

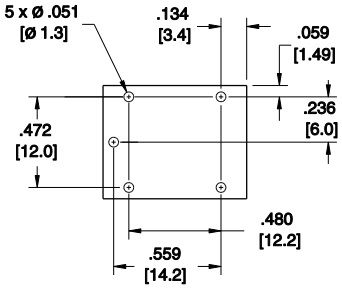
Dimensions in inches with metric equivalents in parentheses.
Tolerance: ± 0.010"





PC BOARD LAYOUT

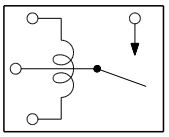
Recommendation for PC board layout.
Dimensions in inches with metric equivalents in parentheses.
Viewed towards terminals.



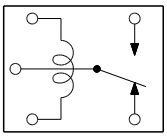
WIRING DIAGRAMS

Viewed towards terminals.

1 Form A



1 Form C



NOTES

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.