

AZ9422

17 AMP MINIATURE POWER RELAY

FEATURES

- 20 Amp switching capability
- TV-8 capability
- 2kV dielectric strength
- Flux tight and sealed versions available
- Class F insulation system
- UL E469841
- TÜV R504894950001
- CQC 20002278184



CONTACTS

Arrangement	SPST-N.O. (1 Form A) SPDT (1 Form C)
Ratings (max.) switched power switched current switched voltage	(resistive load) 480W or 4700VA 17 A, 20 A 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	1 Form A / 1 Form C (NO): 16 A at 277 VAC, resistive, 100k cycles, 85°C 1HP at 250 VAC, 30k cycles, 85°C 20 A at 125 VAC, resistive, 100k cycles, 85°C TV-8 at 125 VAC, 25k cycles, 85°C 1 Form C (NC): 10A 277VAC Res. 100k cycles, 85°C
TÜV	NO: 17 A at 277 VAC, resistive, 100k cycles, 85°C NC: 10 A at 277 VAC, resistive, 100k cycles, 85°C
CQC	NO: 17 A at 277 VAC, resistive, 50k cycles, 85°C NC: 10 A at 277 VAC, resistive, 50k cycles, 85°C Note: Approvals only with the vent hole open for RT III (wash tight) types.
Contact material	AgSnO ₂ (silver tin oxide)
Contact resistance initial	≤100 mΩ initially (6V, 1A voltage drop method)

COIL

Nominal coil DC voltages	3, 5, 6, 9, 12, 15, 18, 24, 36, 48
Dropout voltage	> 10% of nominal coil voltage
Coil power nominal at pickup voltage	(at 23°C) 360mW 207mW
Temperature Rise	42K (107.6°F) at nom. coil voltage
Max. temperature	Class F insulation - 155°C (311°F)

GENERAL DATA

Life Expectancy mechanical electrical	(minimum operations) 1 x 10 ⁷ See UL/TÜV/CQC Rated Loads
Operate Time	10 ms (max.) at nominal coil voltage
Release Time	5 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength coil to contacts	(at sea level for 1 min.) 2000 V _{RMS}
Insulation Resistance	100 MΩ (min.) at 23°C, 500 VDC, 50% RH
Insulation coil to contacts	Basic insulation (rated voltage: 250 VAC, pollution degree: 2, overvoltage category: II)
Temperature Range operating storage	(at nominal coil voltage) -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 130°C (266°F)
Vibration resistance	0.062" (1.5 mm) DA at 10–55 Hz
Shock	10 g
Enclosure protection category material group flammability	P.B.T. polyester RT II, flux proof; RT III, wash tight IIla UL94 V-0
Terminals	Tinned copper alloy, P. C.
Soldering max. temperature max. time	260 °C 5 s
Cleaning max. solvent temp. max. immersion time	(RT III wash tight types) 80°C (176°F) 30 seconds
Dimensions length width height	22.0 mm (0.866") 16.0 mm (0.630") 16.6 mm (0.655")
Weight	9.5 grams (approx.)
Compliance	UL 508, IEC 61810-1, RoHS, REACH
Packing unit (pcs)	100 per box / 1000 per carton box

ZETTLER

AZ9422

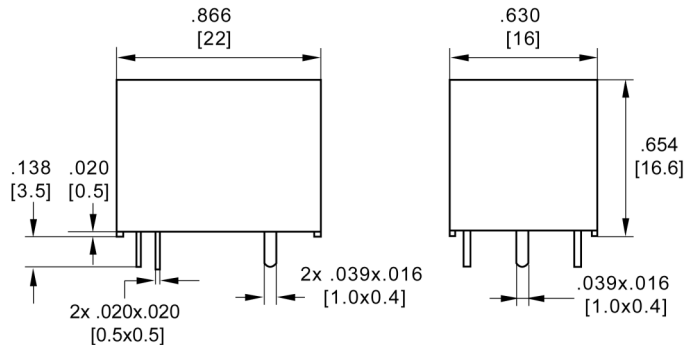
COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Cont. VDC	Resistance Ohm $\pm 10\%$
3	2.25	3.3	25
5	3.8	5.5	70
6	4.5	6.6	100
9	6.8	9.9	225
12	9.0	13.2	400
15	11.25	16.5	625
18	13.5	19.8	900
24	18.0	26.4	1600
36	27.0	39.6	3600
48	36.0	52.8	6400

Note: All values at 23°C (73°F), upright position, terminals downward.

MECHANICAL DATA

Dimensions in inches with metric equivalents in parentheses before tin dipping. Tolerance: $\pm 0.2\text{mm}$ ($\leq 1\text{mm}$), $\pm 0.3\text{mm}$ (1-5mm), $\pm 0.4\text{mm}$ ($> 5\text{mm}$). Add additional 0.2mm to pin length tolerance.



ORDERING DATA

AZ9422-1 ☐ E ☐ D ☐ F

Sealing option
nil: unsealed (flux proof)
E: sealed (wash tight)

Nominal coil voltage
see coil voltage specifications table

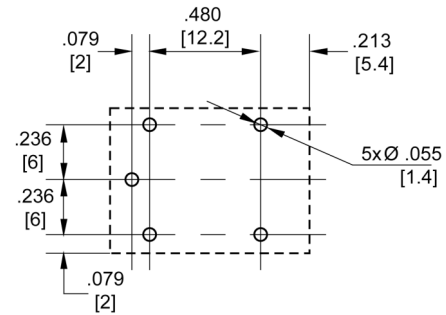
Contact arrangement
A: 1 Form A (SPST-N.O.)
C: 1 Form C (SPDT)

Example ordering data

AZ9422-1AE-12DF 1 Form A, 12 VDC nominal coil voltage, flux proof
AZ9422-1CE-5DEF 1 Form C, 5 VDC nominal coil voltage, epoxy sealed

PC BOARD LAYOUT

Viewed towards terminals. Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm 0.10"$

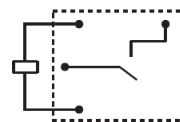


NOTES

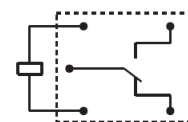
- All values at reference temperature of 23°C (73°F) unless stated otherwise.
- Relay may pull in with less than "Must Operate" value.
- Provide sufficient PCB cross section as heat spreader on terminals.
- Relay adjustment may be affected if excessive shock is applied to the relay.
- Specifications subject to change without notice.

WIRING DIAGRAMS

Viewed towards terminals



Form A



Form C

AZ9422

DISCLAIMER

This product specification is to be used in conjunction with the application notes which can be downloaded from the regional ZETTLER relay websites. 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.

ZETTLER GROUP

Building on a foundation of more than a century of expertise in German precision engineering, ZETTLER Group is a world-class enterprise, engaged in the design, manufacturing, sales and distribution of electronic components. Our industry leadership is based on a unique combination of engineering competence and global scale.

For more information on other ZETTLER Group companies, please visit [zettler-group.com](https://www.zettler-group.com). For support on this product or other ZETTLER relays, please visit one of the group sites below.

SITES FOR ZETTLER RELAYS

NORTH AMERICA

American Zettler, Inc.
www.azettler.com
sales@azettler.com

EUROPE

Zettler Electronics, GmbH
www.zettlerelectronics.com
office@zettlerelectronics.com

Zettler Electronics, Poland
www.zettlerelectronics.pl
office@zettlerelectronics.pl

CHINA

Zettler Group, China
www.zettlercn.com
relay@zettlercn.com

ASIA PACIFIC

Zettler Electronics (HK) Ltd.
www.zettlerhk.com
sales@zettlerhk.com



ZETTLER