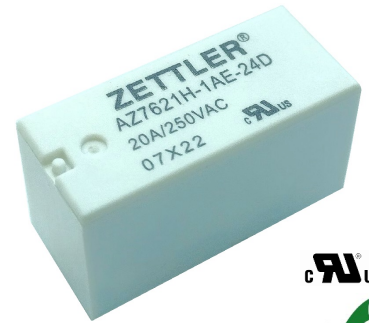


AZ7621H

20 AMP MINIATURE POWER RELAY

FEATURES

- Up to 25 Amp switching capability
- 5 kV dielectric strength
- IEC 60335-1 compliant options available
- Standard and sensitive DC coil options
- Compact size, low seated height of 15.8 mm
- UL / CUR file E43202
- Class F insulation system



CONTACTS

Arrangement	SPST-NO (1 Form A) SPDT (1 Form C)
Ratings (max.) switched power switched current switched voltage	(resistive load) 5000 VA 20 A 440 VAC
25A version switched power switched current switched voltage	6250 VA 25 A 440 VAC
Sensitive coil switched power switched current switched voltage	4000 VA 16 A 440 VAC
Rated Loads UL, CUR	Standard Coil (NO Terminal) 25 A at 250 VAC, resistive, 105°C, 80k cycles (25A model only) 20 A at 250 VAC, resistive, 105°C, 50k cycles 16 A at 250 VAC, resistive, 105°C, 100k cycles TV-8 at 120 VAC, 25k cycles 1 HP at 250 VAC Sensitive Coil 16 A at 250 VAC, resistive, 105°C, 100k cycles
Contact material	AgSnO ₂ / AgSnO ₂ +Au (silver tin oxide / Au plating)
Initial resistance max. typ.	100 mΩ (1A / 6VDC, voltage drop method) < 10 mΩ (at rated current)

COIL

Nominal coil DC voltages	5, 6, 9, 12, 18, 24, 48
Dropout	> 10% of nominal coil voltage
Coil power standard DC coil types nominal at pickup voltage	typ. at 23°C (73°F) coil temperature 410 mW 200 mW
sensitive DC coil types nominal at pickup voltage	250 mW 123 mW
Temperature Rise	29 K (52°F) at nominal coil voltage
Max. temperature	155°C (311°F), class F insulation system

GENERAL DATA

Life Expectancy mechanical electrical	(minimum operations) 1 x 10 ⁷ 1 x 10 ⁵ at 20 A, 250 VAC Res.
Operate Time	15 ms (max.) at nominal coil voltage
Release Time	8 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength coil to contacts between open contacts	(at sea level for 1 min.) 5000 VAC 1000 VAC
Surge voltage coil to contacts	(1.2/50 μs) 10 kV
Insulation Resistance	1000 MΩ (min.) at 23°C, 500 VDC, 50% RH
Temperature Range operating	(at nominal coil voltage) -40°C (-40°F) to 105°C (221°F)
Vibration resistance	0.062" (1.5 mm) DA at 10-55 Hz
Shock resistance	10 g
Enclosure protection category material group	P.B.T. polyester RT II - flux proof, RT III - wash tight IIIa
Terminals	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	29.0 mm (1.142") 12.7 mm (0.500") 15.8 mm (0.622")
Weight	14 grams (approx.)
Compliance	UL 508, IEC 61810-1, RoHS, REACH

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COIL VOLTAGE SPECIFICATIONS

Standard 410mW coils

Nominal Coil VDC	Must Operate VDC	Max. Coil VDC	Nom. Current mA (ref.)	Resistance Ohm $\pm 10\%$
5	3.5	6.5	82.0	61
6	4.2	7.8	68.2	88
9	6.3	11.7	45.5	198
12	8.4	15.6	34.2	351
18	12.6	23.4	22.8	790
24	16.8	31.2	17.1	1405
48	33.6	62.4	8.5	5620

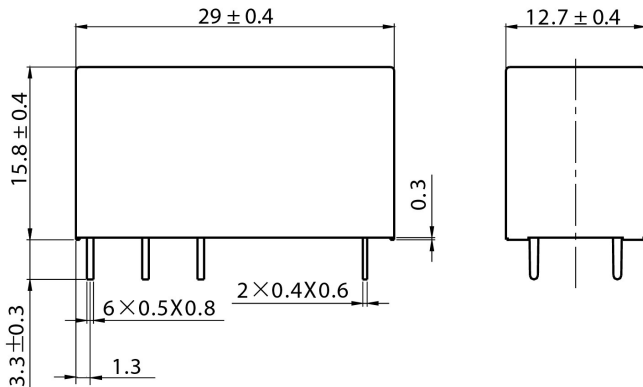
Sensitive 250mW coils

Nominal Coil VDC	Must Operate VDC	Max. Coil VDC	Nom. Current mA (ref.)	Resistance Ohm $\pm 10\%$
5	3.5	6.5	50.0	100
6	4.2	7.8	41.7	144
9	6.3	11.7	27.8	324
12	8.4	15.6	20.8	576
18	12.6	23.4	13.9	1296
24	16.8	31.2	10.4	2304
48	33.6	62.4	5.2	9216

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

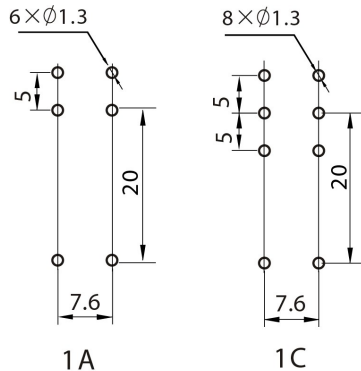
MECHANICAL DATA

Dimensions in mm. If not stated otherwise, tolerance: ± 0.2 mm



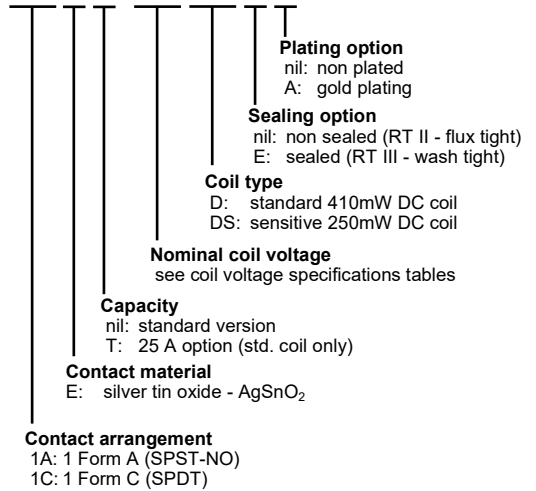
PC BOARD LAYOUT

Layout recommendation. Dimensions in mm. Viewed towards terminals.



ORDERING DATA

AZ7621H-□□E□-□□□□□□



Example ordering data

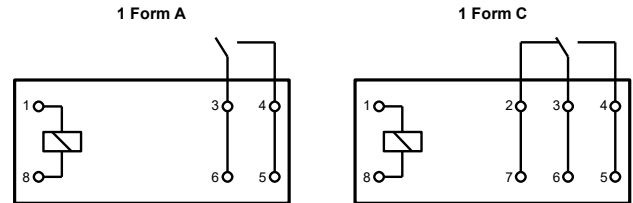
AZ7621H-1CE-9DSE 1 Form C (SPDT), standard capacity, 9 VDC nominal sensitive 250mW coil, sealed version

AZ7621H-1AET-24D 1 Form A (SPST-NO), 25 Amp high capacity version, 24 VDC nominal 410mW coil, flux tight

WIRING DIAGRAMS

Viewed towards terminals.

Note: Connect associated load terminals on PCB to ensure proper operation and service life.



NOTES

- All values at reference temperature of 23°C (73°F) unless stated otherwise.
- Relay may pull in with less than "Must Operate" value.
- "Maximum Coil Voltage" is the maximum voltage the coil can endure for a short period of time.
- Coil suppression circuits such as diodes, etc. in parallel to the coil will lengthen the release time.
- Relay adjustment may be affected if excessive shock is applied to the relay or if undue pressure is exerted on the relay case.
- Substances containing silicone or phosphorus must be avoided in the vicinity to the relay as these will shorten its service life.
- RTII (flux proof) relays must not be washed, immersion cleaned or conformal coated.
- With gold plated contacts a minimum load of 50mA/6VDC is recommended.
- Specifications subject to change without notice.

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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.

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