

# AZ762T

## 16 AMP HIGH INRUSH MINIATURE POWER RELAY

### FEATURES

- 16 Amp switching capability
- Tungsten premake contact for extreme high inrush current
- 5 kV dielectric strength, Isolation spacing  $\geq 10$  mm
- Reinforced insulation according IEC 60730-1, IEC 60335-1
- Glow wire approved versions acc. IEC 60335-1 available
- Compact size, low seated height of 15.7 mm
- UL / CUR file E44211
- VDE certificate 40006031



### CONTACTS

<b>Arrangement</b>	SPST-NO (1 Form A)
<b>Ratings (max.)</b> switched power switched current Inrush current switched voltage	(resistive load) 4432 VA 16 A 165 A (20 ms) / 500A (2 ms) / 800 A (200 $\mu$ s) 125 VDC* or 440 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Loads</b> UL/CUR	16 A at 277 VAC, general use, 85°C, 10k cycles 16 A at 277 VAC, electronic ballast, 85°C, 6k cycles 12 A at 277 VAC, electronic ballast, 85°C, 12k cycles 8 A at 347 VAC, electronic ballast, 85°C, 6k cycles 2.2 A at 277 VAC, standard ballast, 50°C, 10k cycles 3000 W at 230 VAC, tungsten, 40°C, 12k cycles 1200 W at 277 VAC, tungsten, 50°C, 12k cycles 1200 W at 120 VAC, tungsten, 50°C, 12k cycles TV-8 at 120 VAC, 40°C, 25k cycles
VDE	16 A at 250 VAC resistive, 30k cycles, 85°C
<b>Contact material</b>	AgSnO <sub>2</sub> + W (silver tin oxide + tungsten premake)
<b>Initial resistance</b> max. typ.	100 m $\Omega$ (1A / 6VDC, voltage drop method) < 10 m $\Omega$ (at rated current)

### COIL

<b>Nominal coil voltages</b>	see coil voltage specifications tables
<b>Dropout</b>	> 10% of nominal coil voltage
<b>Coil power</b> nominal at pickup voltage	typ. at 23°C (73°F) coil temperature 400 mW 200 mW
<b>Temperature Rise</b>	typ. 26 K (47°F) at nominal coil voltage
<b>Max. temperature</b>	155°C (311°F), class F insulation system

### GENERAL DATA

<b>Life Expectancy</b> mechanical electrical	(minimum operations) 5 x 10 <sup>6</sup> see UL/CUR/VDE rated loads
<b>Operate Time</b> max. typ.	(at nominal coil voltage) 15 ms 7 ms
<b>Release Time</b> max. typ.	(at nom. coil voltage, without coil suppression) 10 ms 4 ms
<b>Dielectric Strength</b> coil to contacts between open contacts	(at sea level for 1 min.) 5000 VAC 1250 VAC
<b>Surge voltage</b> coil to contact	(1.2/50 $\mu$ s) 10 kV
<b>Insulation Resistance</b>	1000 M $\Omega$ (min.) at 23°C, 500 VDC, 50% RH
<b>Isolation spacing</b> clearance creepage	(coil to contact) $\geq 10$ mm $\geq 10$ mm
<b>Insulation</b> coil to contacts	Reinforced insulation (rated voltage: 250 VAC, pollution degree: 3, overvoltage category: III)
<b>Temperature Range</b> operating	(at nominal coil voltage) -40°C (-40°F) to 85°C (185°F)
<b>Vibration resistance</b>	0.062" (1.5 mm) DA at 10-55 Hz
<b>Shock resistance</b>	10 g
<b>Enclosure</b> protection category material group	P.B.T. polyester RT II - flux proof, RT III - wash tight IIIa
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b> max. temperature max. time	270 °C (518°F) 5 seconds
<b>Cleaning</b> max. solvent temp. max. immersion time	(RT III - wash tight types only) 80°C (176°F) 30 seconds
<b>Dimensions</b> length width height	29.0 mm (1.142") 12.7 mm (0.500") 15.7 mm (0.618")
<b>Weight</b>	13.5 grams (approx.)
<b>Packing unit in pcs</b>	50 per plastic tray / 500 per carton box
<b>Compliance</b>	UL 508, IEC 61810-1, RoHS, REACH

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## COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Coil VDC	Resistance Ohm
5	3.5	7.5	62 ±10%
6	4.2	9.0	90 ±10%
9	6.3	13.5	202 ±10%
12	8.4	18.0	360 ±10%
18	12.6	27.0	810 ±10%
24	16.8	36.0	1440 ±10%
48	33.6	72.0	5760 ±15%
60	42.0	90.0	7500 ±15%
110	77.0	165.0	25200 ±15%

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

## ORDERING DATA

AZ762T-1AE-□□D□F

Sealing option  
 nil: non sealed (RT II - flux tight)  
 E: sealed version (RT III - wash tight)

Nominal coil voltage  
 see coil voltage specifications tables

### Example ordering data

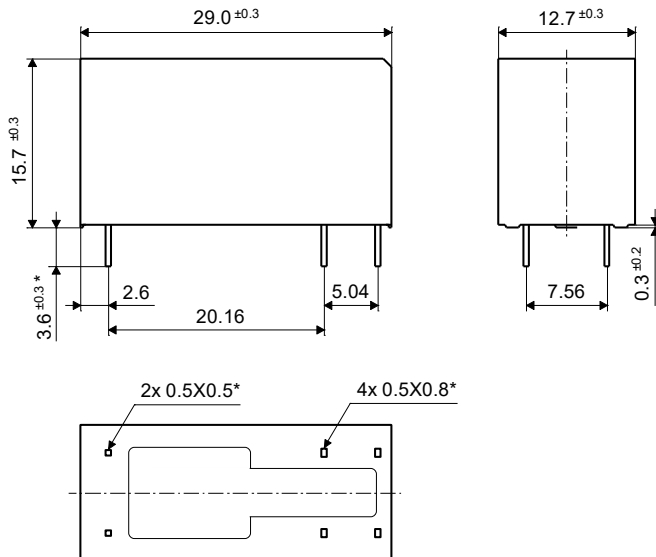
AZ762T-1AE-9DF 1 Form A, 12 VDC nominal coil voltage, flux tight version

AZ762T-1AE-24DEF 1 Form A, 24 VDC nominal coil voltage, wash tight version

## MECHANICAL DATA

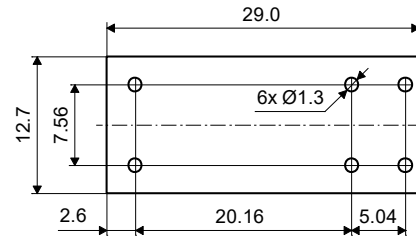
Dimensions in mm. If not stated otherwise, tolerance: ±0.2 mm

Note: \* Pin dimensions for reference only and given without tin coating.



## PC BOARD LAYOUT

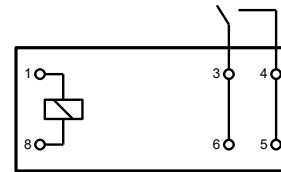
Layout recommendation. Dimensions in mm. Viewed towards terminals.



## WIRING DIAGRAMS

Viewed towards terminals.

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



## NOTES

1. All values at reference temperature of 23°C (73°F) unless stated otherwise.
2. Relay may pull in with less than "Must Operate" value.
3. "Maximum Coil Voltage" is the maximum voltage the coil can endure for a short period of time.
4. Coil suppression circuits such as diodes, etc. in parallel to the coil will lengthen the release time.
5. Relay adjustment may be affected if excessive shock is applied to the relay or if undue pressure is exerted on the relay case.
6. Substances containing silicone or phosphorus must be avoided in the vicinity to the relay as these will shorten its service life.
7. RTII (flux proof) relays must not be washed, immersion cleaned or conformal coated.
8. 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.

## ZETTLER GROUP

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2022-03-03