

# AZSR180

## 80 AMP MINIATURE POWER RELAY

### FEATURES

- 80 Amp switching capability
- Contact gap: >2.05 mm
- Holding power : <100 mW
- Dielectric strength 5 kV<sub>RMS</sub>
- Isolation spacing greater than 10 mm
- Double insulation, EN 60730-1 (VDE 0631, part 1)
- Reinforced insulation, EN 60335-1 (VDE 0700, part 1)
- UL / CUR E44211
- VDE 40044305
- CQC 17002162259



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A)
<b>Ratings (max.)</b> switched power switched current continuous current switched voltage	(resistive load) 22160 VA 80 A 80 A 150VDC* or 440VAC *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Loads</b>	80 A at 277 VAC, resistive, 1k cycles, 85 °C 30 A at 263 VAC, AC-7a, 30k cycles, 85 °C
<b>VDE</b>	80 A at 277 VAC, resistive, 1k cycles
<b>UL/CUR</b>	80 A at 277 VAC, resistive, 1k cycles
<b>CQC</b>	80 A at 380 VAC, resistive, 1k cycles, 85 °C 30 A at 380 VAC, resistive, 30k cycles, 85 °C
<b>Contact material</b>	AgSnO <sub>2</sub> (silver tin oxide)
<b>Contact gap</b>	2.05 mm
<b>Contact resistance</b> initial	(at 6V 1A voltage drop method) ≤ 50 mΩ

### COIL

<b>Nominal coil DC voltages</b>	12, 24
<b>Dropout voltage</b>	> 5% of nominal coil voltage
<b>Coil power</b> at pickup voltage Max. Continuous Dissipation	(at 20 °C) 270 mW 2.0 W at 20°C(68°F) ambient
<b>Temperature Rise</b>	15°C(27°F) at nom. coil voltage
<b>Max. temperature</b>	Class F insulation - 155°C (311°F)

### GENERAL DATA

<b>Life Expectancy</b> mechanical electrical	(minimum operations) 1 x 10 <sup>5</sup> see UL/CUR/VDE/CQC ratings
<b>Operate Time</b>	40 ms (max.) at nominal coil voltage
<b>Release Time</b>	5 ms (max.) at nominal coil voltage, without coil suppression
<b>Dielectric Strength</b> coil to load contacts open load contacts	(at sea level for 1 min.) 5000 V <sub>RMS</sub> 2500 V <sub>RMS</sub>
<b>Insulation</b> (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
<b>Insulation Resistance</b>	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
<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</b>	10 g
<b>Enclosure</b>	PA
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b> max. temperature max. time	270 °C(518°F) 5 s
<b>Dimensions</b> length width height	40.0 mm (1.57") 25.0 mm (0.98") 49.2 mm (1.94")
<b>Weight</b>	105grams (approx.)
<b>Compliance</b>	UL 508, IEC 61810-1, RoHS, REACH
<b>Packing unit in pcs</b>	10 per plastic tubing / 100 per carton box

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## COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Min. Holding VDC	Max. Cont. VDC	Resistance Ohm $\pm 10\%$
12	9.0	4.0	24.0	300
24	18.0	8.0	48.0	1200

Note: All values at 20°C (68°F), upright position, terminals downward.

## ORDERING DATA

AZSR180-1AE-□□D



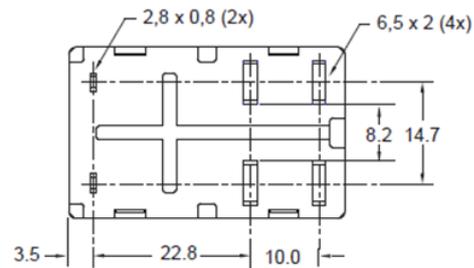
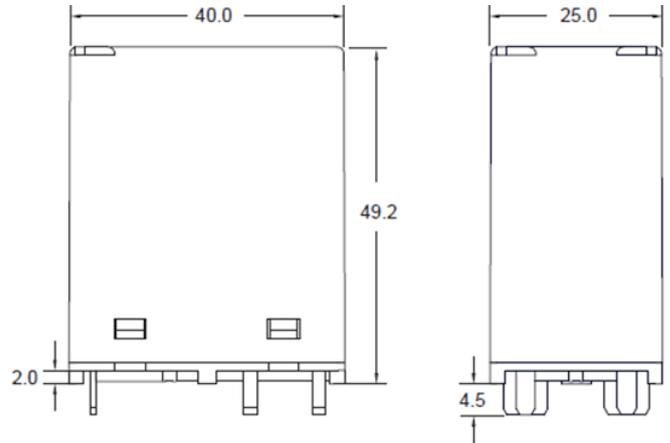
Nominal coil voltage  
see coil voltage specifications table

### Example ordering data

AZSR180-1AE-24D With 24 VDC coil

## MECHANICAL DATA

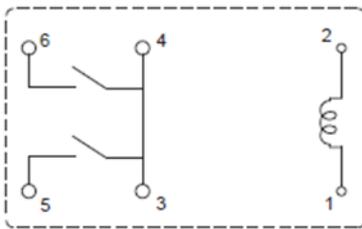
Dimensions in mm. Tolerance:  $\pm 0.25\text{mm}$



## WIRING DIAGRAMS

Viewed towards terminals

It is absolute necessary to provide a connection between pin 3 and 4 (5 and 6) on the PCB to avoid a malfunction of the relay! Check also note 4 on first page, please.

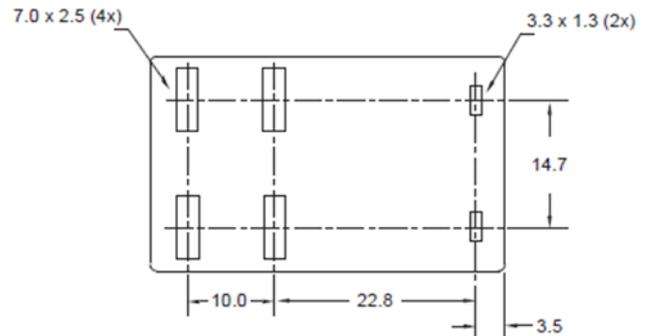


## NOTES

1. All values at 20°C (68°F)
2. Relay may pull in with less than "Must Operate" value
3. Specifications subject to change without notice
4. Recommended PCB cross section 16 mm<sup>2</sup>
5. PCB terminal downward mounting is prefer

## PC BOARD LAYOUT

Viewed towards terminals. Dimensions in mm.



# AZSR180

## 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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## SITES FOR ZETTLER RELAYS

### NORTH AMERICA

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