

AZSR180

80 AMP MINIATURE POWER RELAY

FEATURES

- 80 Amp switching capability
- Contact gap: >2.05 mm
- Holding power : <100 mW
- Dielectric strength 5 kV_{RMS}
- 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

Arrangement	SPST (1 Form A)
Ratings (max.) 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.
Rated Loads	
VDE	80 A at 277 VAC, resistive, 1k cycles, 85°C 30 A at 263 VAC, AC-7a, 30k cycles, 85°C
UL/CUR	80 A at 277 VAC, resistive, 1k cycles
CQC	80 A at 380 VAC, resistive, 1k cycles, 85°C 30 A at 380 VAC, resistive, 30k cycles, 85°C
Contact material	AgSnO ₂ (silver tin oxide)
Contact gap	2.05 mm
Contact resistance initial	(at 6V 1A voltage drop method) ≤ 50 mΩ

COIL

Nominal coil DC voltages	12, 24
Dropout voltage	> 5% of nominal coil voltage
Coil power at pickup voltage Max. Continuous Dissipation	(at 20 °C) 270 mW 2.0 W at 20°C(68°F) ambient
Temperature Rise	15°C(27°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 ⁵ see UL/CUR/VDE/CQC ratings
Operate Time	40 ms (max.) at nominal coil voltage
Release Time	5 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength coil to load contacts open load contacts	(at sea level for 1 min.) 5000 V _{RMS} 2500 V _{RMS}
Insulation (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
Insulation Resistance	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
Temperature Range operating	(at nominal coil voltage) -40°C (-40°F) to 85°C (185°F)
Vibration resistance	0.062" (1.5 mm) DA at 10–55 Hz
Shock	10 g
Enclosure	PA
Terminals	Tinned copper alloy, P. C.
Soldering max. temperature max. time	270 °C(518°F) 5 s
Dimensions length width height	40.0 mm (1.57") 25.0 mm (0.98") 49.2 mm (1.94")
Weight	105grams (approx.)
Compliance	UL 508, IEC 61810-1, RoHS, REACH
Packing unit in pcs	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



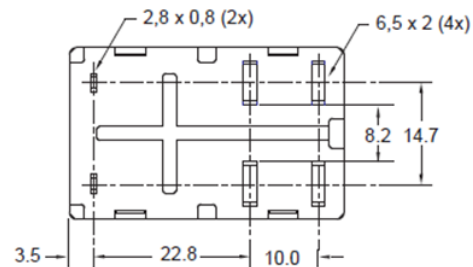
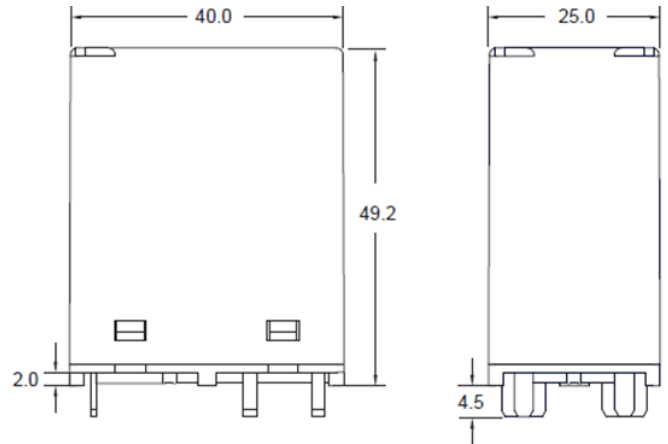
Nominal coil voltage
see coil voltage specifications table

Example ordering data

AZSR180-1AE-24D With 24 VDC coil

MECHANICAL DATA

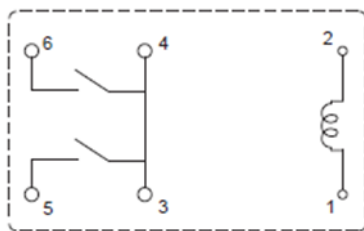
Dimensions in mm. Tolerance: \pm 0.25mm



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.

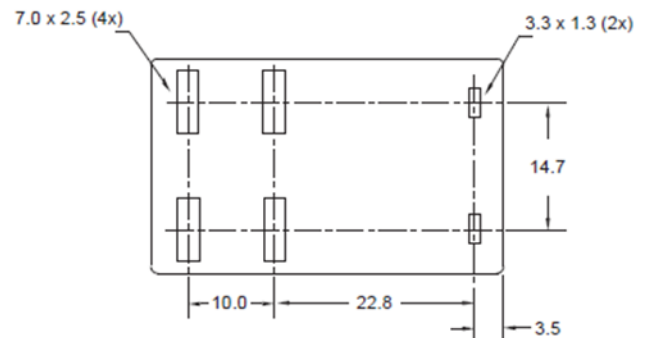


NOTES

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 mm²
5. PCB terminal downward mounting is prefer

PC BOARD LAYOUT

Viewed towards terminals. Dimensions in mm.



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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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