

# AZSR131

## 35 AMP MINIATURE POWER RELAY

### FEATURES

- 35 Amp switching capability
- 4.5 kV dielectric strength, 10 kV surge
- Wide contact gap (2.3 mm) version available
- UL Class F insulation system (155°C) standard
- EN 60335-1 (GWT) approved version available
- TÜV: B 17 04 88793 005
- UL / CUR file: E365652



### CONTACTS

<b>Arrangement</b>	SPST-N.O. (1 Form A)
<b>Ratings (max.)</b>	(resistive load)
switched power	9695 VA
switched current	35 A
continuous current	35 A
switched voltage	277 VAC
<b>Rated Loads</b>	
UL	26 A at 277 VAC, resistive, 85°C, 50k cycles 35 A at 277 VAC, resistive, 85°C, 30k cycles
TÜV	22 A at 277 VAC, resistive, 70°C, 100k cycles 26 A at 277 VAC, resistive, 85°C, 50k cycles 33 A at 277 VAC, cos phi 0.8, 85°C, 50k cycles 35 A at 277 VAC, cos phi 0.8, 85°C, 30k cycles
<b>Contact material</b>	AgSnO <sub>2</sub> (silver tin oxide)
<b>Contact gap</b>	
standard version	1.8 mm
option (200) version	2.3 mm
<b>Initial resistance</b>	< 100 mΩ (1 A / 6 V - voltage drop method)

### COIL

<b>Nominal coil DC voltages</b>	5, 9, 12, 18, 24, 48
<b>Dropout voltage</b>	> 5% of nominal coil voltage
<b>Holding voltage</b>	> 35% of nominal coil voltage
<b>Coil power</b>	
nominal	1.4 W
max. continuous	2 W
at pickup voltage	790 mW
<b>Temperature Rise</b>	70 K (126°F) at nom. coil voltage, 35 A/85°C
<b>Max. temperature</b>	155°C (311°F)

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Provide sufficient PCB cross section as heat spreader on terminals.
4. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy</b>	(minimum operations)
mechanical	
standard version	3 x 10 <sup>5</sup> (1.8 mm contact gap version)
option (200) version	1 x 10 <sup>5</sup> (2.3 mm contact gap version)
electrical	
	3 x 10 <sup>4</sup> at 35 A, 277 VAC, resistive
	3 x 10 <sup>4</sup> at 35 A, 277 VAC, cos phi 0.8
<b>Operate Time</b>	20 ms (max.) at nominal coil voltage
<b>Release Time</b>	10 ms (max.) at nominal coil voltage, without coil suppression
<b>Dielectric Strength</b>	(at sea level for 1 min.)
	4500 V <sub>RMS</sub> coil to contact
standard version	2500 V <sub>RMS</sub> between open contacts
option (200) version	3500 V <sub>RMS</sub> between open contacts
<b>Surge voltage</b>	
coil to contact	10 kV (at 1.2 x 50 μs)
<b>Isolation spacing</b>	
clearance	≥ 6.4 mm
creepage	≥ 7.5 mm
<b>Insulation Resistance</b>	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
<b>Temperature Range</b>	(at nominal coil voltage)
operating	-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>	20 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b>	
max. Temperature	270 °C
max. Time	5 s
<b>Cleaning</b>	
max. Solvent Temp.	80°C (176°F)
max. Immersion Time	30 seconds
<b>Dimensions</b>	
length	30.4 mm (1.20")
width	15.9 mm (0.63")
height	25.15 mm (0.99")
<b>Weight</b>	25 grams
<b>Compliance</b>	UL 508, IEC 61810-1, IEC 60335-1 (GWT) RoHS, REACH
<b>Packing unit in pcs</b>	50 per tray / 500 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%
5	3.75	1.75	6	18
9	6.75	3.15	10.8	58
12	9.0	4.2	14.4	103
18	13.5	6.3	21.6	230
24	18.0	8.4	28.8	410
48	36.0	16.8	57.6	1650

## ORDERING DATA

AZSR131-1AE-D

### Options

nil: standard version  
(200): 2.3 mm contact gap version

### Material option

nil: standard version  
GW: EN 60335-1 (GWT) approved

### Nominal coil voltage

see coil voltage specifications table

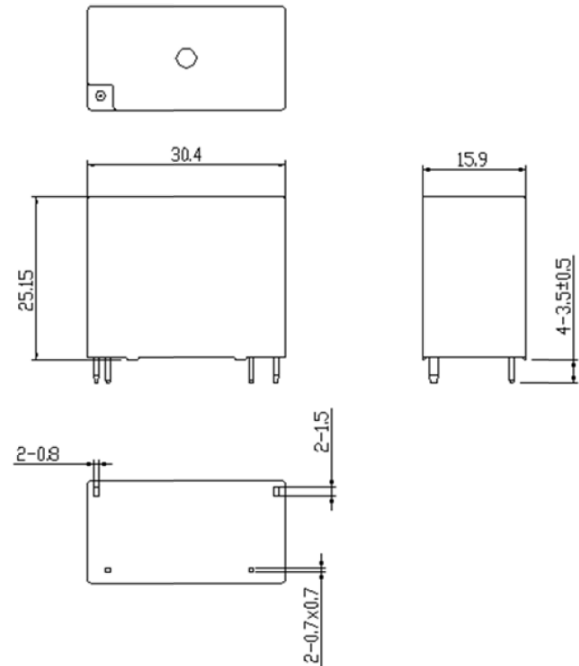
### Example ordering data

AZSR131-1AE-9D 9 VDC nominal coil voltage, non EN 60335-1 approved, 1.8 mm contact gap

AZSR131-1AE-24DGW 24 VDC nominal coil voltage, EN 60335-1 (GWT) approved, 1.8 mm contact gap

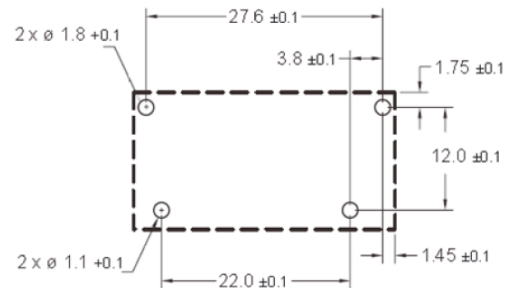
## MECHANICAL DATA

Dimensions in mm. Tolerance:  $\pm$ 0.3 mm unless otherwise stated.



## PC BOARD LAYOUT

Viewed towards terminals



## WIRING DIAGRAMS

Viewed towards terminals

