AZSR131

35 AMP MINIATURE POWER RELAY

FEATURES

- 35 Amp switching capability
- 4.5 kV dielectric strength, 10 kV surge
- 1.8 mm and 2.3 mm contact gap versions available
- UL Class F insulation system (155°C)
- EN 60335-1 (GWT) approved version available
- TÜV: B 088793 0015
- UL/cUR file: E365652
- CQC: 17002168255

CONTACTS

Arrangement	SPST-NO (1 Form A)
Ratings (max.) switched power switched current continuous current switched voltage	(resistive load) 9695 VA 35 A 35 A 277 VAC
Rated Loads **UL/cUR** **TÜV/CQC**	 26 A at 277 VAC, resistive, 85°C, 50k cycles 35 A at 277 VAC, resistive, 85°C, 30k cycles 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
Contact material	$AgSnO_2$ - silver tin oxide
Contact gap standard version option (200) version	 1.8 mm 2.3 mm
Contact resistance initial typical	 ≤ 100 mΩ (1 A / 6 V - voltage drop method) < 3 mΩ (35 A / 6 V - voltage drop method)

COIL

Nominal coil DC voltages	5, 9, 12, 18, 24, 48
Dropout voltage	> 5% of nominal coil voltage
Holding voltage	> 35% of nominal coil voltage
Coil power nominal holding power at pickup voltage	(at 23°C) 1.4 W 172 mW 790 mW
Temperature Rise	70 K (126°F) at nom. coil voltage, 35 A/85°C
Max. temperature	Class F insulation - 155°C (311°F)

GENERAL DATA

Life Expectancy mechanical standard version option (200) version electrical	(minimum operations) 3 x 10^5 (1.8 mm contact gap version) 1 x 10^5 (2.3 mm contact gap version) see UL/cUR/TÜV/CQC ratings
Operate Time max. typ.	(at nominal coil voltage) 20 ms 10 ms
Release Time max. typ.	(at nom. coil voltage, without coil suppression) 10 ms 2 ms
Dielectric Strength standard version option (200) version	(at sea level for 1 min.) 4500 VAC coil to contact 2500 VAC between open contacts 3500 VAC between open contacts
Surge voltage coil to contact	 10 kV (at 1.2 x 50 µs)
Isolation spacing clearance creepage	 ≥ 6.4 mm ≥ 7.5 mm
Insulation Resistance	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
Insulation Type coil to contacts	 Reinforced insulation (rated voltage ≤ 300 VAC, pollution degree: 2, overvoltage category: II)
Temperature Range operating	(at nominal coil voltage) -40°C (-40°F) to 85°C (185°F)
Vibration resistance	1.5 mm (0.062") DA at 10–55 Hz
Shock resistance	20 g
Enclosure type material group flammability	 PBT polyester; LCP RT II, flux proof IIIa UL94 V-0
Terminals	Tinned copper alloy, P. C.
Soldering max. temperature max. time	 270 °C 5 s
Dimensions length width height	 30.4 mm (1.20") 15.9 mm (0.63") 25.15 mm (0.99")
Weight	25 grams (approx.)
Compliance	UL 508, IEC 61810-1, RoHS, REACH
Packing unit in pcs	50 per tray / 500 per carton box

AZSR131

COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC (Contact gap 1.8 mm)	Must Operate VDC (Contact gap 2.3 mm)	Min. Holding VDC	Max. Coil VDC	Resistance Ohm ± 10%
5	3.5	3.75	1.75	6.0	18
9	6.3	6.75	3.15	10.8	58
12	8.4	9.0	4.2	14.4	103
18	12.6	13.5	6.3	21.6	230
24	16.8	18.0	8.4	28.8	410
48	33.6	36.0	16.8	57.6	1650

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

ORDERING DATA

AZSR131-1AE-□□D□□□□

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

Material option
nil: standard version
GW: glow wire test approved version

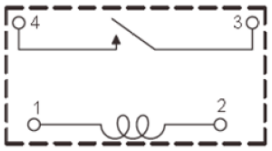
Nominal coil voltage
see coil voltage specifications table

Example ordering data

AZSR131-1AE-12D	12 VDC nominal coil voltage, 1.8 mm contact gap
AZSR131-1AE-24DGW	24 VDC nominal coil voltage, glow wire test approved version, 1.8 mm contact gap
AZSR131-1AE-9D(200)	9 VDC nominal coil voltage, 2.3 mm contact gap

WIRING DIAGRAMS

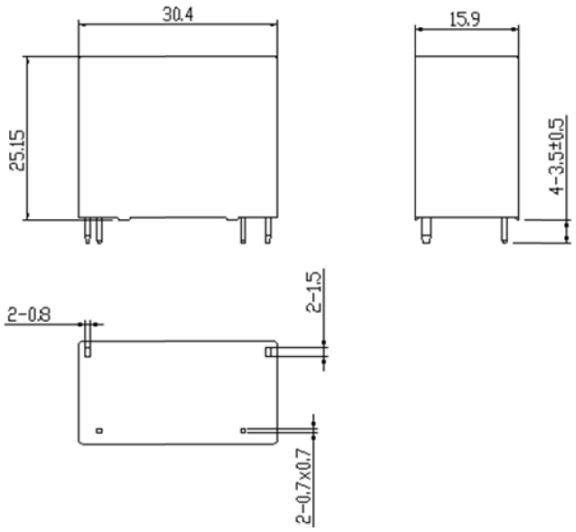
Viewed towards terminals.



MECHANICAL DATA

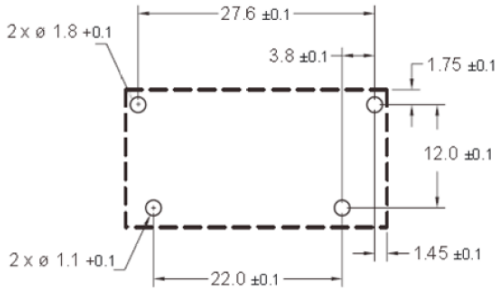
Dimensions in mm. If not stated otherwise, tolerance: ±0.3 mm

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



PC BOARD LAYOUT

Layout recommendation. Dimensions in mm. Viewed towards terminals.



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. Provide sufficient PCB cross section on load terminals. Recommended cross section according to IEC61810-1 at 35A is 6 mm²
9. Specifications subject to change without notice.

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

Building on a foundation of more than a century of expertise in German precision engineering, ZETTLER Group is a world-class enterprise, engaged in the design, manufacturing, sales and distribution of electronic components. Our industry leadership is based on a unique combination of engineering competence and global scale.

For more information on other ZETTLER Group companies, please visit ZETTLER-group.com. For support on this product or other ZETTLER relays, please visit one of the group sites below.

SITES FOR ZETTLER RELAYS

NORTH AMERICA

American Zettler, Inc.
www.azettler.com
sales@azettler.com

EUROPE

Zettler Electronics, GmbH
www.zettlerelectronics.com
office@zettlerelectronics.com

Zettler Electronics, Poland
www.zettlerelectronics.pl
office@zettlerelectronics.pl

CHINA

Zettler Group, China
www.zettlercn.com
relay@zettlercn.com

ASIA PACIFIC

Zettler Electronics (HK) Ltd.
www.zettlerhk.com
sales@zettlerhk.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for General Purpose Relays ***category:***

Click to view products by Zettler ***manufacturer:***

Other Similar products are found below :

PCN-105D3MH,000 59641F200 5JO-1000CD-SIL 5X827E 5X837F 5X840F 5X842F 5X848E LY2N-AC120 LY2-US-AC120 M115C60 M115N010 M115N0150 603-12D 60HE1-5DC 60HE2S-12DC 61211T0B4 61212T400 61222Q400 61243B600 61243C500 61243Q400 61311BOA2 61311BOA6 61311BOA8 61311C0A2 61311COA1 61311COA6 61311F0A2 61311QOA1 61311QOA4 61311T0D6 61311TOA6 61311TOA7 61311TOB3 61311TOB4 61311U0A6 61312Q600 61312T400 61312T600 61313U200 61313U400 61322T400 61332C400 61343C200 61343C600 61343Q200 61343T100 61343T200 61343T400