



»» Features

- Micro ISO automotive relay.
- NO contacts switch 35A resistive load at 23°C, 20A resistive load at -40~+105°C, 100,000 ops.
- SPNO / 3 Terminals relay of cost saving version.
- Operating ambient temperature -40°C to 125°C.
- Complies with RoHS-Directive 2011/65/EU and ELV-Directive 2000/53/EC.

»» Type List

Terminal style	Contact form	Designation (provided with)	Enclosure style	
			Dust cover	Flux tight
Socket terminal	1A (SPNO)	-----	871A-1A-D	871A-1A-C
		Resistor	871A-1A-D-R1	871A-1A-C-R1
		Diode	871A-1A-D-D1	871A-1A-C-D1

»» Ordering Information

871 A - 1A - C -
 1 2 3 4 5 6

- | | |
|--|--|
| 1. 871 -- Basic series designation
2. A -- Three pin type
3. 1A -- Single pole normally open
4. D -- Dust cover
C -- Flux tight
S -- Sealed type washable | 5. Blank -- Standard type
R1 -- Coil parallel with 1/2W resistor for 12V 680Ω
D1 -- Coil parallel with diode 1N4007 the diode anode on # 85,87 terminal
6. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability) |
|--|--|

»» Contact Rating

Resistive load	35A 14VDC, On 1s / Off 1s 20A 14VDC, On 1s / Off 1s, at -40~+105°C
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»» Coil Rating (DC)

Rated voltage	Rated current ±10 % at 23°C		Coil resistance ±10 % at 23°C		Max. continuous voltage at 85°C	Pick up voltage (Max.) at 23°C	Drop out voltage (Min.) at 23°C	Power consumption at rated voltage	
	without resistor	with resistor	without resistor	with resistor				without resistor	with resistor
12V	98 mA	115 mA	123 Ω	104 Ω	16 V	8.0 V	1.2 V	approx. 1.2W	approx. 1.4W

871A

»» Specification

Contact material	AgSnO alloy	
Contact voltage drop ⁽¹⁾	Typ. 40mV at 10A	
Operate time ⁽¹⁾	10ms Max.	
Release time ⁽¹⁾	10ms Max.	
Insulation resistance ⁽¹⁾	20MΩ Min. (DC 500V)	
Dielectric strength ⁽¹⁾	Between open contact	: AC 500V , 50/60Hz 1 min.
	Between contact and coil	: AC 500V , 50/60Hz 1 min.
Vibration resistance	Operating extremes	10~500Hz , 5.0G
	Damage limits	10~500Hz , 5.0G
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	1,000,000 ops. (frequency 18,000 ops./hr)
	Electrical	100,000 ops. (frequency 1,800 ops./hr)
Operating ambient temperature	-40~+125°C (no freezing)	
Weight	Approx. 20 g	

Note : (1) Initial value. Operate and release time excluding contact bounce.

(2) Unless otherwise specified, all tests are under room temperature and humidity.

(3) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.

(4) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

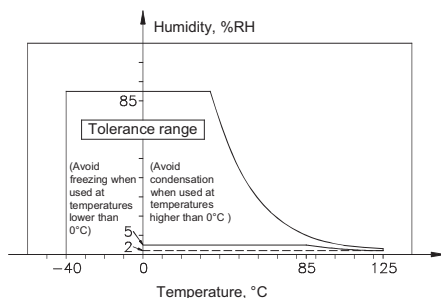
(5) Do not switch the contacts without any load as the contact resistance may become increased rapidly.

(6) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.

(7) Use suitable harnesses and bus bars according to the current as below :
35A type : Min. 10.0mm²

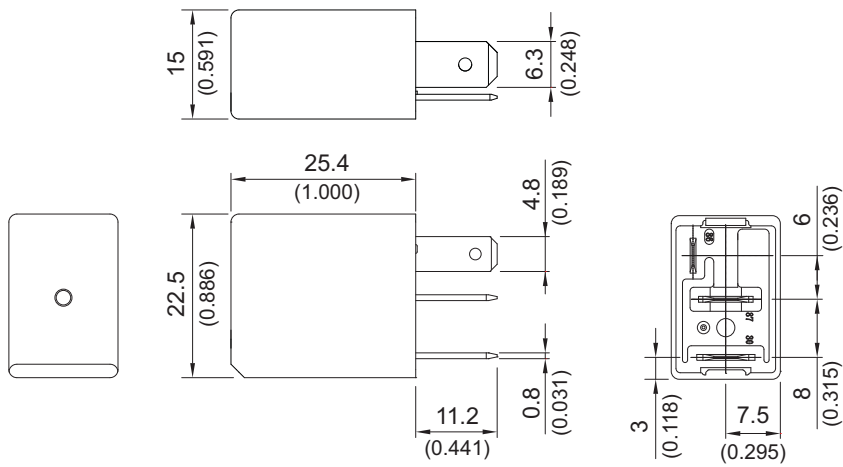
(8) Usage, transport and storage conditions

- 1. Temperature: -40~+125°C
- 2. Humidity: 5 to 85% R.H.
- 3. Pressure: 86 to 106 kPa
- Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



(9) Please contact Song Chuan for the detailed information.

»» Outline Dimensions

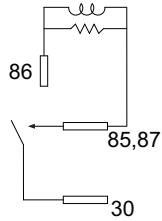
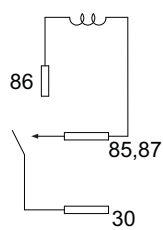


TOLERANCE:
 LESS THAN: 1(0.039) ±0.1(0.004)
 5(0.197) ±0.3(0.012)
 20(0.787) ±0.5(0.020)
 MORE THAN: 20(0.787) ±1(0.039)

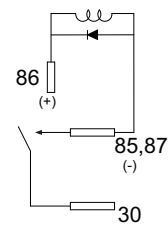
»» Wiring Diagram

BOTTOM VIEW

1A



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