Features

- ☐ High current Micro ISO automotive relay.
- ☐ 280 coil terminal type is optional.
- ☐ SPNO & SPDT contact configuration.
- ☐ Switches up to 35A resistive load, 100,000 ops.
- ☐ Dust cover, flux-free type and sealed type are available.
- ☐ Optional resistor or diode for coil transient suppression.
- ☐ Complies with RoHS-Directive 2011/65/EU and ELV-Directive 2000/53/EC.

Type List

◆611

Terminal style	Contact form	Designation (provided with)	Enclosure style		
			Dust cover	Flux tight	Sealed type washable
Socket terminal	1A (SPNO)	----------	611-1AH-D	611-1AH-C	611-1AH-S
		Resistor	611-1AH-D-R1	611-1AH-C-R1	611-1AH-S-R1
		Diode	611-1AH-D-D1	611-1AH-C-D1	611-1AH-S-D1

◆871E

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

Ordering Information

611	-	1A	H	-	D	-	☐	☐
1		2	3		4		5	6

1. 611 -- Basic series designation
   871E -- Basic series designation (with 280 coil terminal & 630 contact terminal)
2. 1A -- Single pole normally open
   1C -- Single pole double throw
3. Blank -- Standard type
   H -- Contact material AgSnO (only for 611)
4. D -- Dust cover
   C -- Flux tight
   V -- Sealed type
   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 terminal
6. ☐ -- Coil voltage (please refer to the coil rating data for the availability)

Contact Rating

Resistive load	NO: 35A 14VDC, NC: 20A 14VDC, On 2s / Off 2s, at -40～+125°C
Motor load	NO: Inrush 80A, steady state 33A 14VDC, On 3s / Off 4s, at -40～+125°C
Lamp load	NO: Inrush 150A, steady state 30A 14VDC, On 3s / Off 4s, at -40～+125°C

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	7.8 V	1.2 V	approx. 1.2W	approx. 1.4W

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.
Operating ambient temperature	-40～+125°C (no freezing)	
Weight	Approx. 20g	

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.

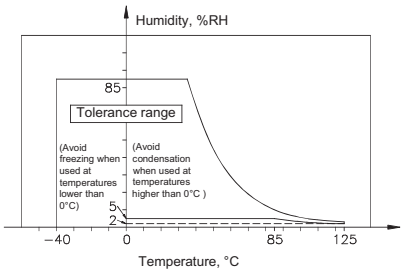
(5) Do not switch the contacts without any load as the contact resistance may become increased rapidly.

(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. 10.0mm^2

(8) Usage, transport and storage conditions

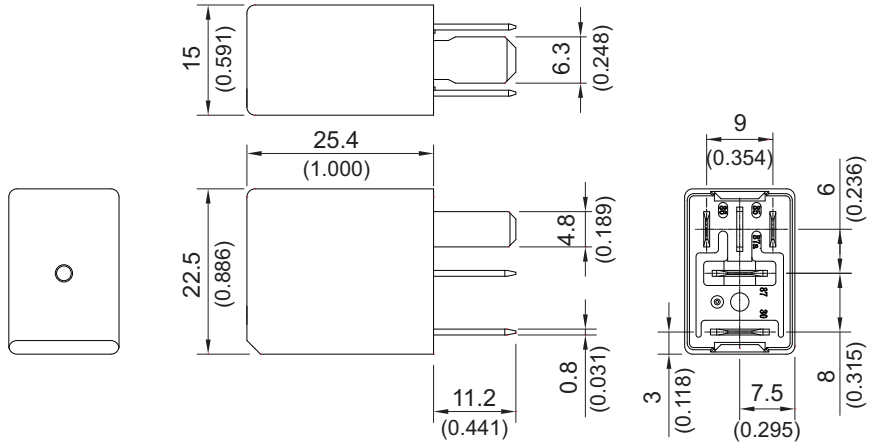
- 1. Temperature: -40～+125°C
- 2. Humidity: 5 to 85% R.H.
- 3. Pressure: 86 to 106 kPa
- Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



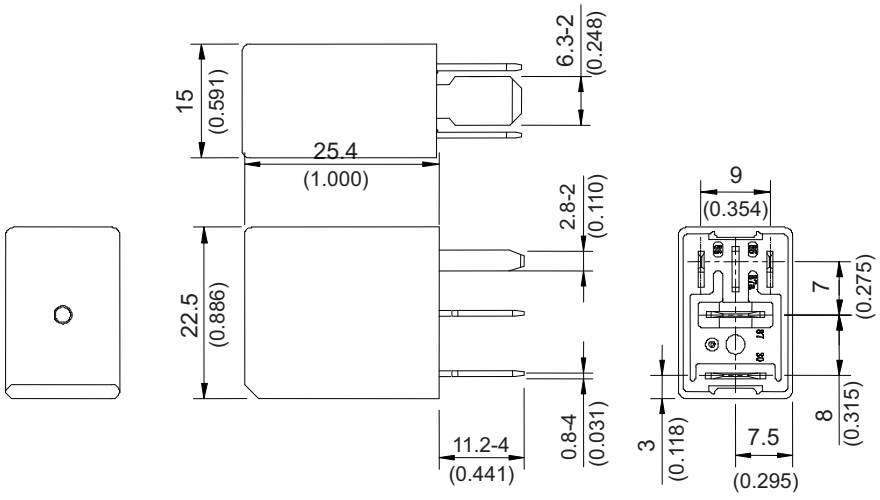
(9) Please contact Song Chuan for the detailed information.

Outline Dimensions

◆611



◆871E



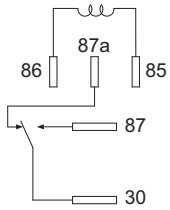
TOLERANCE:
LESS THAN: 1(0.039) ±0.1(0.004)
5(0.197) ±0.3(0.012)
20(0.787) ±0.5(0.020)
MORE THAN: 20(0.787) ±1(0.039)

611/871E

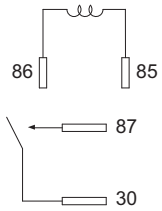
Wiring Diagram

BOTTOM VIEW

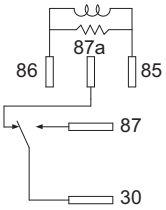
1C



1A

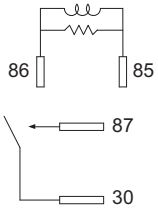


1C



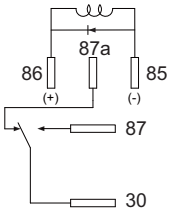
PROVIDED WITH RESISTOR

1A



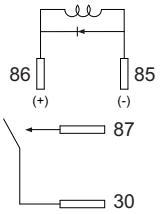
PROVIDED WITH RESISTOR

1C



PROVIDED WITH DIODE

1A



PROVIDED WITH DIODE