



### »» Features

- 70A high power automotive relay.
- High temperature endurance up to 125 degree C.
- Optional to be equipped with protection diode or resistor.
- Dust cover version, flux free type, sealed & weather proof type or flange cover version to be chosen.
- Tinned terminal is available on request.
- Comply with RoHS-Directive 2002/95/EC, and ELV-Directive 2000/53/EC.

### »» Type List

Terminal style	Contact form	Designation (provided with)	Enclosure style		
			Dust cover	Flux tight	Sealed type washable
Socket terminal	1A (SPNO)	-----	897-1AH-D	897-1AH-C	897-1AH-S
		Resistor	897-1AH-D-R1	897-1AH-C-R1	897-1AH-S-R1
PCB terminal	1A (SPNO)	-----	897P-1AH-D	897P-1AH-C	897P-1AH-S
		Resistor	897P-1AH-D-R1	897P-1AH-C-R1	897P-1AH-S-R1

Terminal style	Contact form	Designation (provided with)	Enclosure style	
			Flanged cover (dust cover)	Flanged cover (flux tight)
Socket terminal	1A (SPNO)	-----	897-1AH-D1	897-1AH-C1
		Resistor	897-1AH-D1-R1	897-1AH-C1-R1

Terminal style	Contact form	Designation (provided with)	Enclosure style	
			Steel bracket (dust cover)	Steel bracket (flux tight)
Socket terminal	1A (SPNO)	-----	897-1AH-D1S	897-1AH-C1S
		Resistor	897-1AH-D1S-R1	897-1AH-C1S-R1

Terminal style	Contact form	Designation (provided with)	Enclosure style	
			Steel bracket (dust cover with shroud)	Steel bracket (dust cover with weather proof)
Socket terminal	1A (SPNO)	Resistor	897-1AH-D1SF-R1	897-1AH-D1SW-R1

### »» Ordering Information

897      P    -   1AH   -   C    -   R1   -   T            001  
 1        2        3        4        5        6        7

- |          |   |      |   |
|----------|---|------|---|
| 1. 897   | -- Basic series designation                             | 4. D | -- Dust cover                           |
| 2. Blank | -- Socket terminal                                      | C    | -- Flux tight                           |
| P        | -- PCB terminal   | S    | -- Sealed type washable                 |
| 3. 1AH   | -- Single pole normally open,<br>contact material AgSnO | D1   | -- Flanged cover (dust cover)           |
|          |   | C1   | -- Flanged cover (flux tight)           |
|          |   | S1   | -- Flanged cover (sealed type washable) |
|          |   | D1S  | -- Steel bracket (dust cover)           |

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|---|---|
| C1S -- Steel bracket (flux tight)                               | 6. Blank -- Standard type   |
| S1S -- Steel bracket (sealed type washable)                     | <b>T</b> -- Special requirement for Tin plated terminal                       |
| D1SF -- Steel bracket (dust cover with shroud)                  |   |
| D1SW -- Steel bracket (dust cover with weather proof)           | 7. Blank -- Standard type   |
| 5. Blank -- Standard type                                       | 001 -- Coil parallel with diode IN4007 the positive pole "+" on # 85 terminal |
| R1 -- Coil parallel with resistor 1/2W for 12V 680Ω , 24V 2700Ω | 002 -- Coil parallel with diode IN4007 the negative pole "-" on # 85 terminal |

## »» Contact Rating

Max. Continuous current	70A 14VDC, 25A 28VDC
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## »» Coil Rating (DC)

Rated voltage (V)	Rated current ±10 % at 23 °C (mA)	Coil resistance ±10 % at 23 °C (Ω)	Max. continuous Voltage at 85 °C <sup>(1)</sup>	Pick up voltage(Max) at 23 °C	Drop out voltage(Min) at 23 °C	Power consumption at rated voltage
12	133	90	100 % of	65 % of	10 % of	approx. 1.6W
24	66.7	360	rated voltage	rated voltage	rated voltage	

Notes : (1) Continuous contact current at 50A.

## »» Specification

Contact material	AgSnO alloy	
Contact voltage drop <sup>(1)</sup>	Typ. 30mV at 10A	
Insulation resistance <sup>(1)</sup>	20 MΩ Min. (DC 500V)	
Operate time <sup>(1)</sup>	20ms Max.	
Release time <sup>(1)</sup>	20ms Max.	
Dielectric strength <sup>(1)</sup>	Between open contact	: AC 500V , 50/60Hz 1 min.
	Between contact and coil	: AC 500V , 50/60Hz 1 min.
Vibration resistance	Operating extremes	10~55Hz , amplitude 2mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 operations (frequency 18,000 operations/hr)
	Electrical	100,000 operations (frequency 1,200 operations/hr)
Temperature range	Operating	-40~+125 °C (no freezing)
Weight	Approx. 40 g	

Note : (1) initial value

»» Outline Dimensions

◆ 897 (C,D,S)



◆ 897 (C1,D1,S1)



◆ 897 (C1S,D1S,S1S)



## ◆897 (D1SW)



## ◆897 (D1SF)



## ◆897P (C,D,S)



## »» Wiring Diagram

BOTTOM VIEW

1A



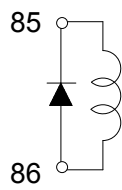
R1



001



002



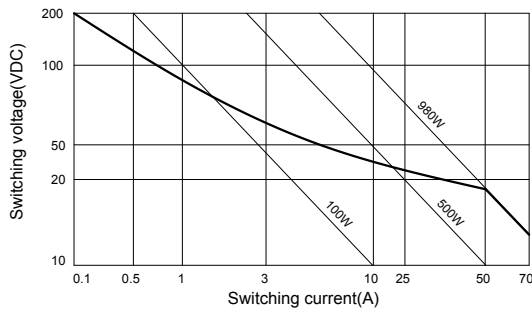
## »» PC Board Layout

BOTTOM VIEW



## »» Engineering Data

Safe breaking, arc extinguished  
(normally open contact) for resistive loads.



Life expectancy



Life expectancy



Ambient temperature vs coil voltage for continuous duty



Operate time/Release time

