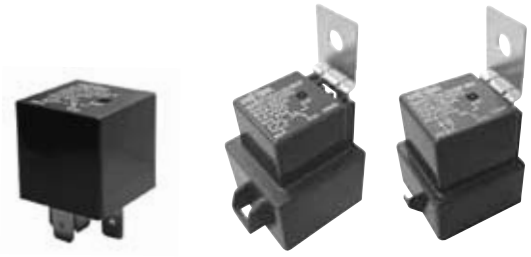


Features

- Mini ISO high power automotive relay 30A/50A.
- High temperature endurance up to 125 degree C.
- Optional SPNC, SPNO, SPDT, DPNO contact configurations.
- Optional to be equipped with protection diode or resistor.
- Both available PCB terminal and quick connect terminal versions.
- Available for plain cover type, skirted cover flanged cover, and weather proof versions.
- 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	Enclosure style		
		Dust cover	Flux tight	Sealed type washable
Socket terminal	1A (SPNO)	896-1AH-D	896-1AH-C	896-1AH-S
		896H-1AH-D	896H-1AH-C	896H-1AH-S
	1C (SPDT)	896-1CH-D	896-1CH-C	896-1CH-S
		896H-1CH-D	896H-1CH-C	896H-1CH-S
	2A (DPNO)	896-2AH-D	896-2AH-C	896-2AH-S
		896H-2AH-D	896H-2AH-C	896H-2AH-S
PCB terminal	1A (SPNO)	896P-1AH-D	896P-1AH-C	896P-1AH-S
		896HP-1AH-D	896HP-1AH-C	896HP-1AH-S
	1C (SPDT)	896P-1CH-D	896P-1CH-C	896P-1CH-S
		896HP-1CH-D	896HP-1CH-C	896HP-1CH-S
	2A (DPNO)	896P-2AH-D	896P-2AH-C	896P-2AH-S
		896HP-2AH-D	896HP-2AH-C	896HP-2AH-S

Terminal style	Contact form	Enclosure style	
		Flanged cover (dust cover)	Flanged cover (flux tight)
Socket terminal	1A (SPNO)	896-1AH-D1	896-1AH-C1
		896H-1AH-D1	896H-1AH-C1
	1C (SPDT)	896-1CH-D1	896-1CH-C1
		896H-1CH-D1	896H-1CH-C1
	2A (DPNO)	896-2AH-D1	896-2AH-C1
		896H-2AH-D1	896H-2AH-C1

Terminal style	Contact form	Enclosure style	
		Steel bracket (dust cover)	Steel bracket (flux tight)
Socket terminal	1A (SPNO)	896-1AH-D1S	896-1AH-C1S
		896H-1AH-D1S	896H-1AH-C1S
	1C (SPDT)	896-1CH-D1S	896-1CH-C1S
		896H-1CH-D1S	896H-1CH-C1S
	2A (DPNO)	896-2AH-D1S	896-2AH-C1S
		896H-2AH-D1S	896H-2AH-C1S

Terminal style	Contact form	Designation (provided with)	Enclosure style	
			Steel bracket (dust cover with shroud)	Steel bracket (dust cover with weather proof)
Socket terminal	1C (SPDT)	Resistor	896H-1CH-D1SF-R1	896H-1CH-D1SW-R1

Ordering Information

896	H	P	-	1CH	-	C	-	R1	-	T	001
1		2		3		4		5		6		7		8	

1. 896 -- Basic series designation

2. Blank -- Standard type
   H -- High power type

3. Blank -- Socket terminal
   P -- PCB terminal

4. 1AH -- Single pole normally open, contact material AgSnO
   1BH -- Single pole normally closed, contact material AgSnO
   1CH -- Single pole double throw, contact material AgSnO
   2AH -- Double pole double make, contact material AgSnO

5. D -- Dust cover
   C -- Flux tight
   S -- Sealed type washable
   C1 -- Flanged cover (flux tight)
   D1 -- Flanged cover (dust cover)
   S1 -- Flanged cover (sealed type washable)
   D1S -- Steel bracket (dust cover)
   C1S -- Steel bracket (flux tight)
   S1S -- Steel bracket (sealed type washable)
   D1SF -- Steel bracket (dust cover with shroud)
   D1SW -- Steel bracket (dust cover with weather proof)

6. Blank -- Standard type
   R1 -- Coil parallel with resistor 1/2W for 12V 680Ω，24V 2700Ω

7. Blank -- Standard type
   T -- Special requirement for Tin plated terminal

8. Blank -- Standard type
   001 -- Coil parallel with diode IN4007 the positive pole on # 85 terminal
   002 -- Coil parallel with diode IN4007 the negative pole on # 85 terminal

Contact Rating

Type	896 1A	896 1B	896 1C	896 2A
Resistive load	40A 14VDC	40A 14VDC	NO : 40A 14VDC NC : 30A 14VDC	2×15A 14VDC

Type	896H 1A	896H 1B	896H 1C	896H 2A
Resistive load	50A 14VDC 20A 28VDC	40A 14VDC 15A 28VDC	NO : 50A 14VDC, 20A 28VDC NC : 30A 14VDC, 15A 28VDC	2×30A 14VDC 2×10A 28VDC

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 (1)	Pick up voltage(Max) at 23°C	Drop out voltage(Min) at 23°C	Power consumption at rated voltage
12	133	90	120 % of rated voltage	65 % of rated voltage	10 % of rated voltage	approx. 1.6W
24	66.7	360				

Notes：(1) Without switching the load.

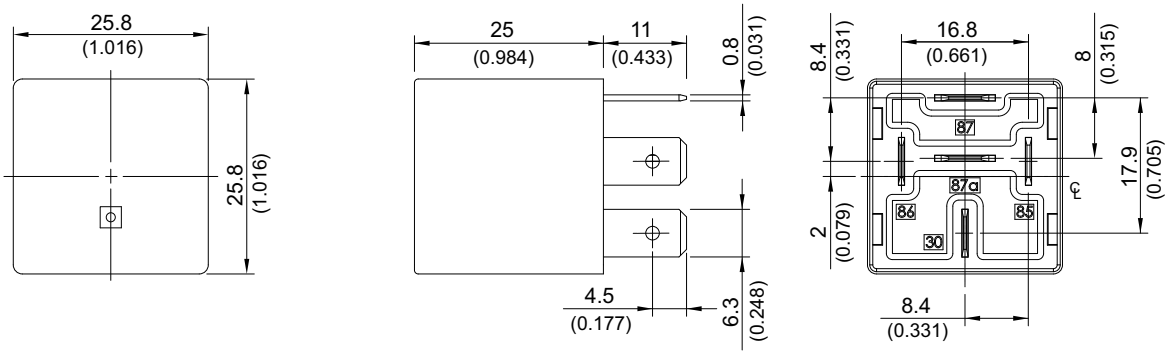
Specification

Contact material	AgSnO alloy	
Contact voltage drop (1)	Typ. 50mV at 10A	
Insulation resistance (1)	20MΩ Min. (DC 500V)	
Operate time (1)	20ms Max.	
Release time (1)	20ms Max.	
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	10～55Hz , 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	

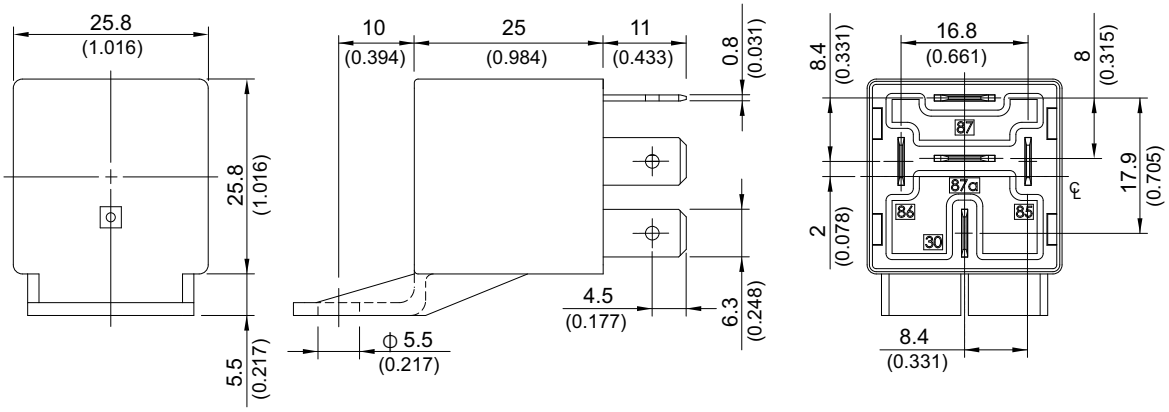
Note：(1) initial value

Outline Dimensions

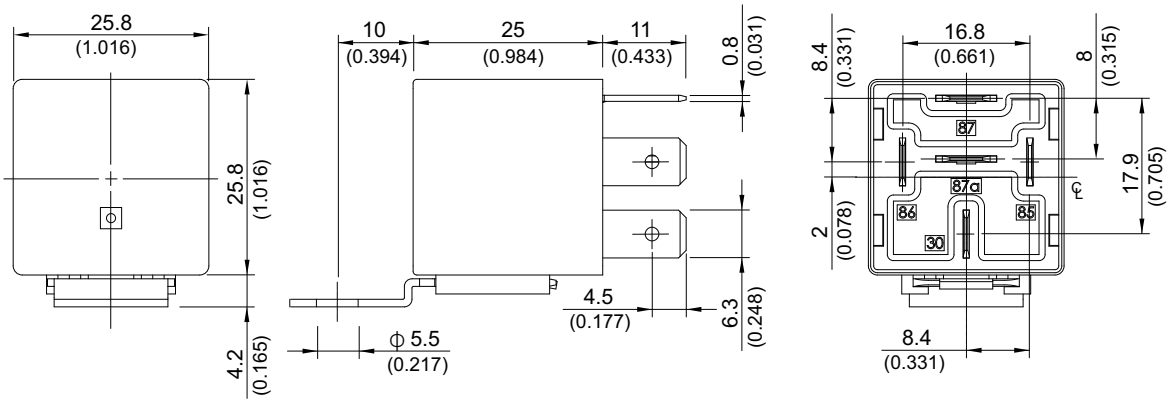
◆896,896H (C,D,S)



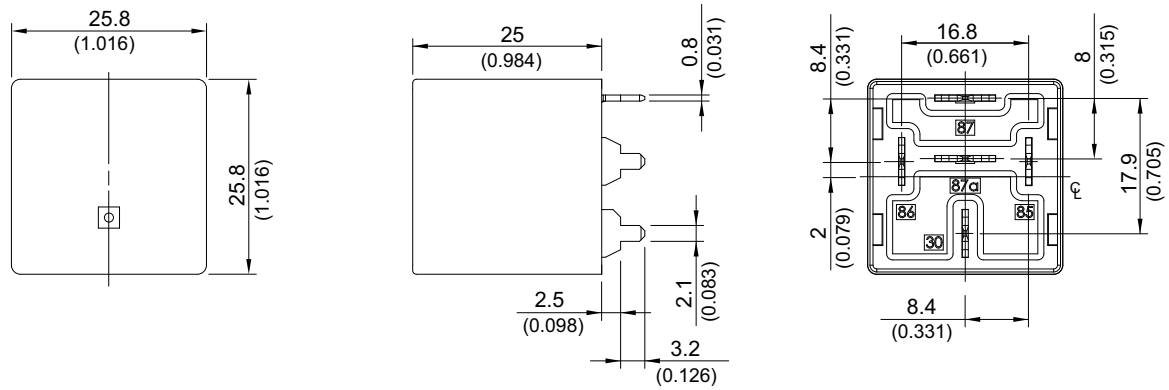
◆896,896H (C1,D1,S1)



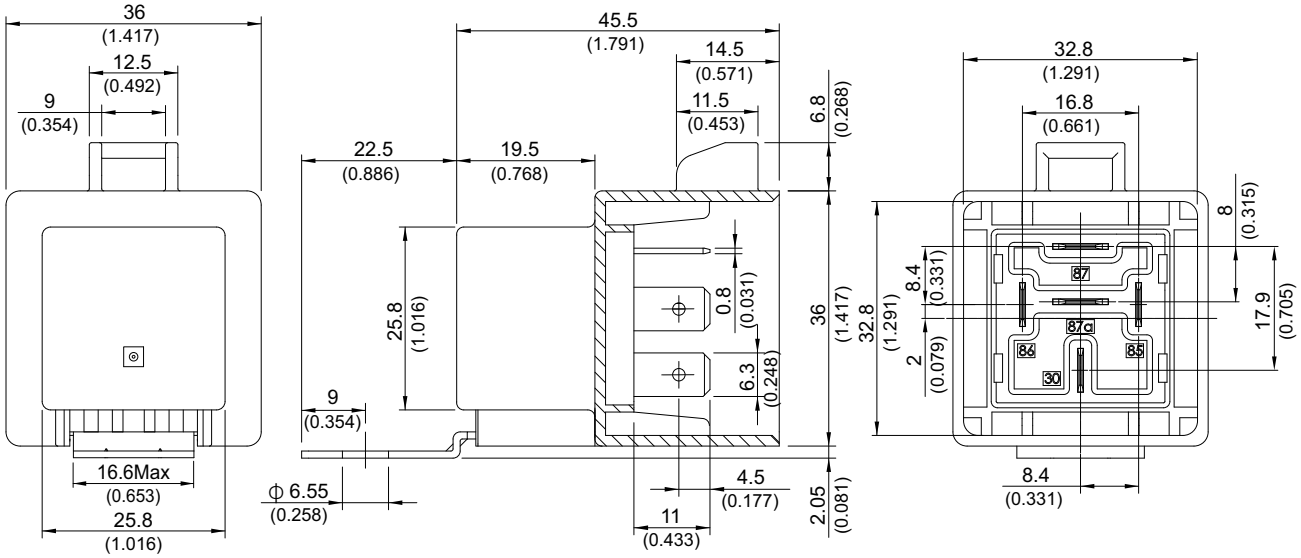
◆896,896H (C1S,D1S,S1S)



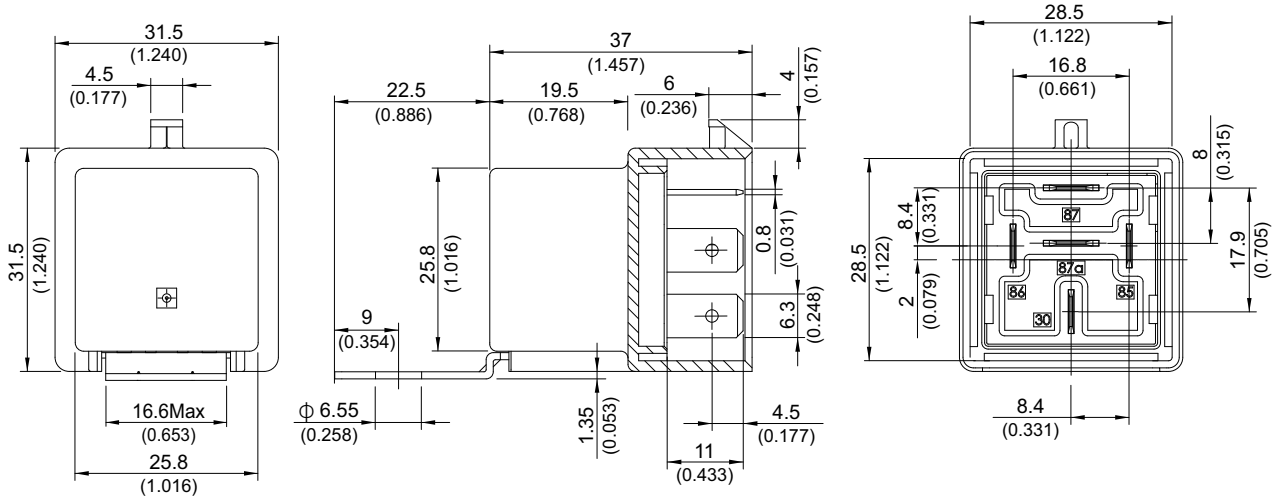
◆896P,896HP (C,D,S)



◆896H (D1SW)



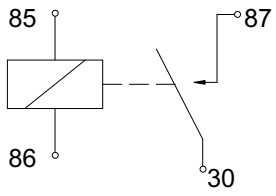
◆896H (D1SF)



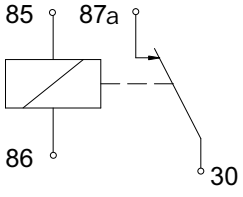
Wiring Diagram

BOTTOM VIEW

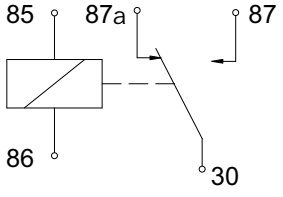
1A



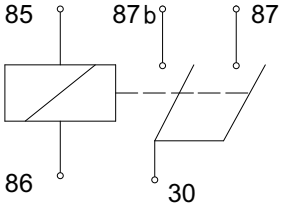
1B



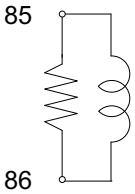
1C



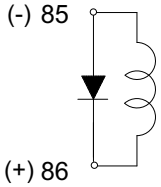
2A



R1



001



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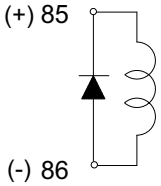
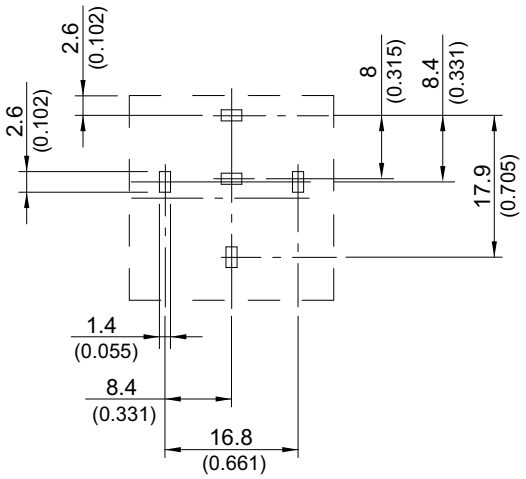


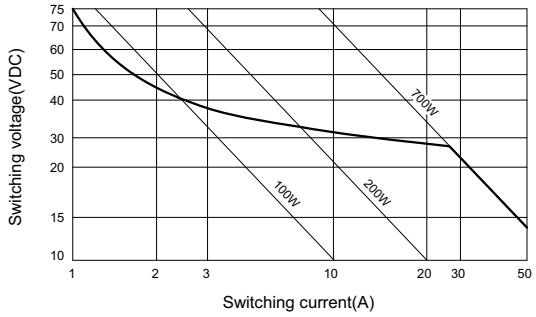
PC Board Layout

BOTTOM VIEW

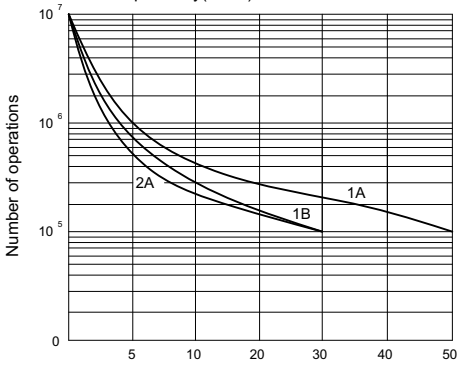


Engineering Data

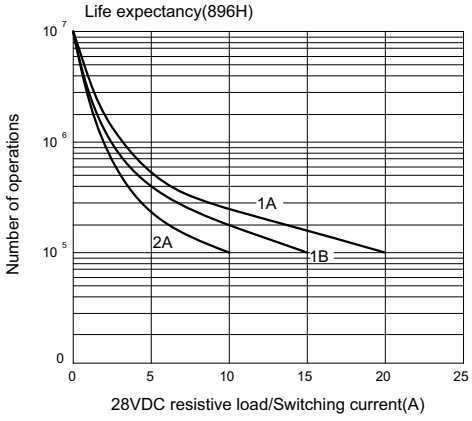
Safe breaking,arc extinguished
(normally open contact)for resistive loads(896H)



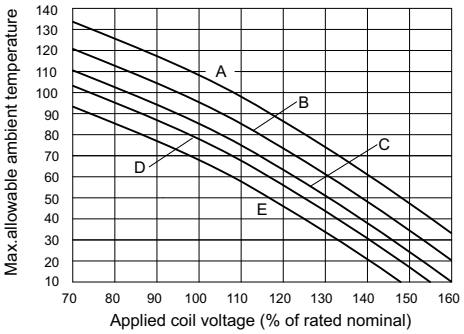
Life expectancy(896H)



Life expectancy(896H)



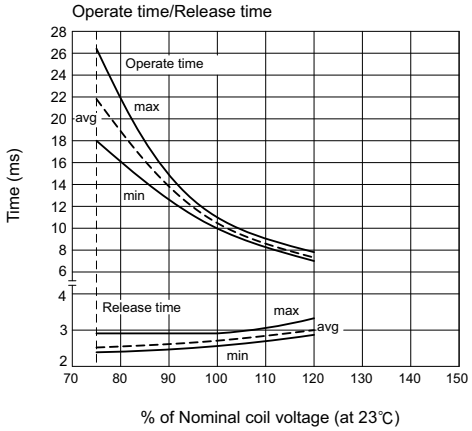
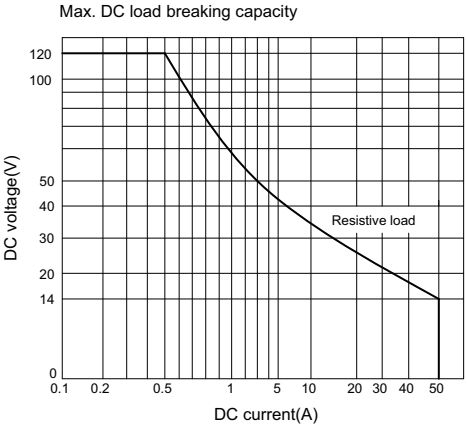
Ambient temperature vs coil voltage for continuous duty



A:0A B:25A C:30A D:40A E:50A Contact load(resistive)

Maximum mean coil temperature=155℃

Operate time/Release time



Max. DC load breaking capacity