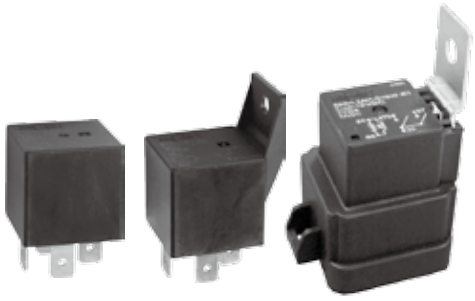


Features

- Mini ISO automotive relay.
- SPNC, SPNO, SPDT, DPNO contact configurations.
- NO contacts switch 50A resistive load, NC contacts switch 30A resistive load, 100,000 ops., 23°C.
- Operating ambient temperature -40°C to 125°C.
- Available with plain cover, flanged cover, bracketed cover, skirted cover, and weather proof cover.
- Available with PCB terminals or quick connect terminals.
- Optional resistor or diode for coil transient suppression.
- Complies with RoHS-Directive 2011/65/EU 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	□	□	-	1AH	-	C	-	□	-	□	□	□
1	2	3		4		5		6		7	8	9

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
   2AUH -- Single pole normally open, contact material AgSnO (2×# 87 terminal)

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)
   DUSW -- 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 1N4007 the diode anode on # 85 terminal
   002 -- Coil parallel with diode 1N4007 the diode cathode on # 85 terminal

9. □ -- Coil voltage (please refer to the coil rating data for the availability)

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	Rated current ±10 % at 23°C		Coil resistance ±10 % at 23°C		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	
	without resistor	with resistor	without resistor	with resistor				without resistor	with resistor
12V	133 mA	150 mA	90 Ω	80 Ω	133 % of rated voltage	65 % of rated voltage	10 % of rated voltage	approx. 1.6W	approx. 1.8W
24V	67 mA	75 mA	360 Ω	320 Ω					

Note : (1) With continuous contact current 20A.

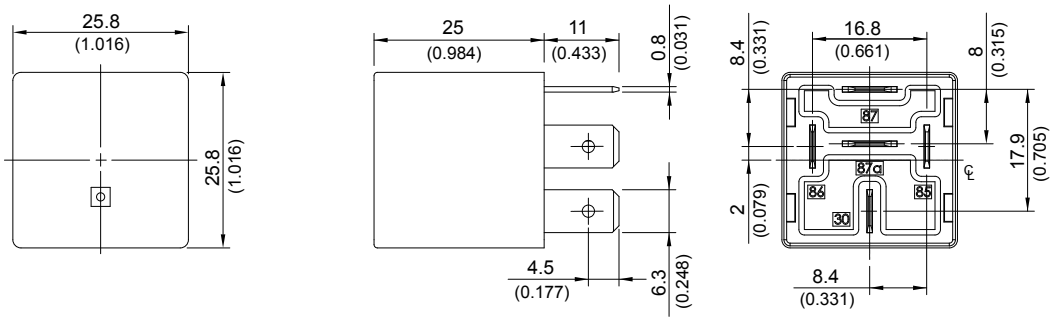
Specification

Contact material	AgSnO alloy	
Contact voltage drop (1)	Typ. 50mV at 10A	
Operate time (1)	20ms Max.	
Release time (1)	20ms Max.	
Insulation resistance (1)	20MΩ Min. (DC 500V)	
Dielectric strength (1)	Between open contact : AC 500V , 50/60Hz 1min.	
	Between contact and coil : AC 500V , 50/60Hz 1min.	
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	10,000,000 ops. (frequency 18,000 ops./hr)
	Electrical	100,000 ops. (frequency 1,200 ops./hr)
Operating ambient temperature	-40～+125°C (no freezing)	
Weight	Approx. 40 g	

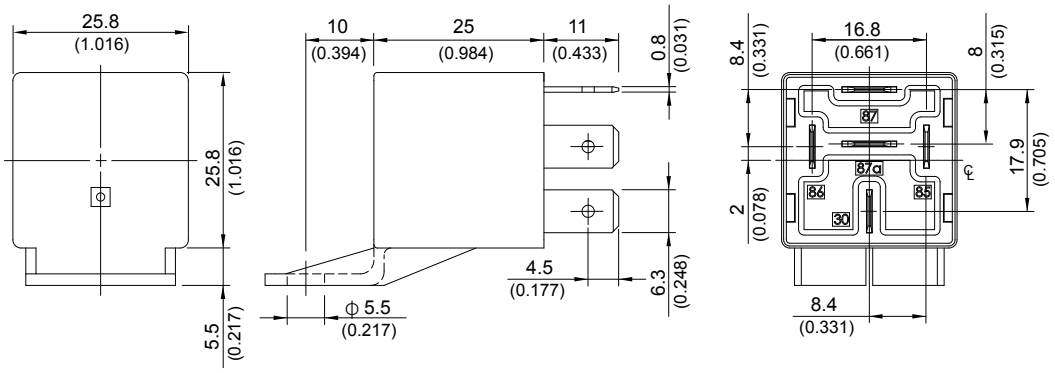
Note : (1) Initial value. Operate and release time excluding contact bounce.

Outline Dimensions

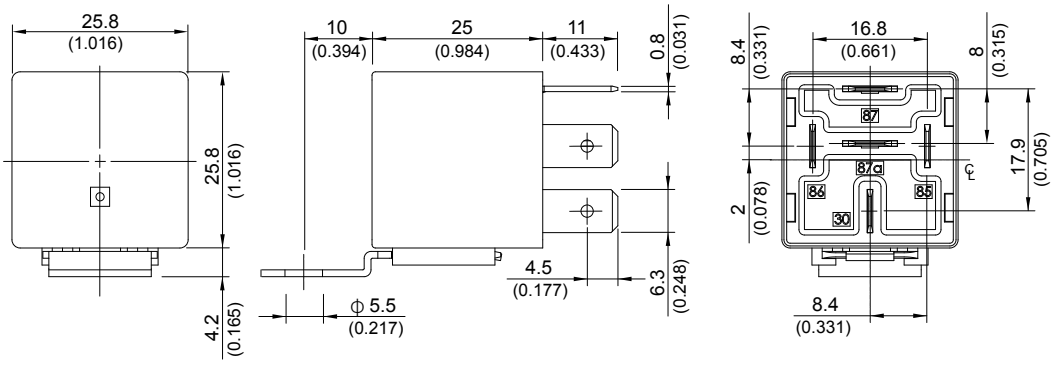
◆896,896H (C,D,S)



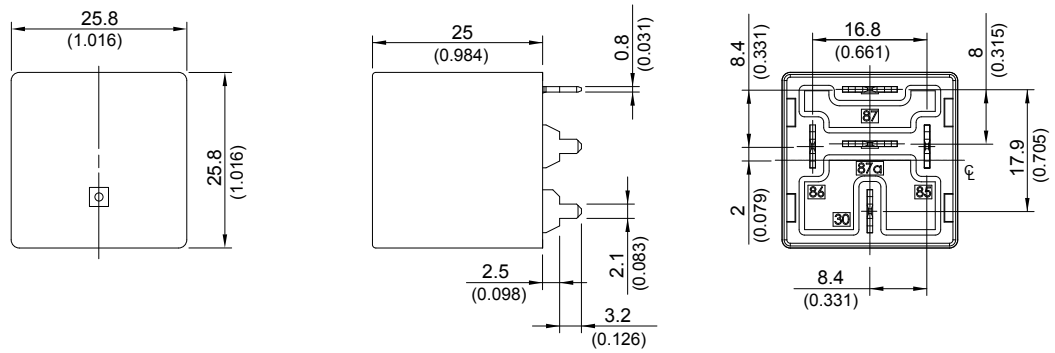
◆896,896H (C1,D1,S1)



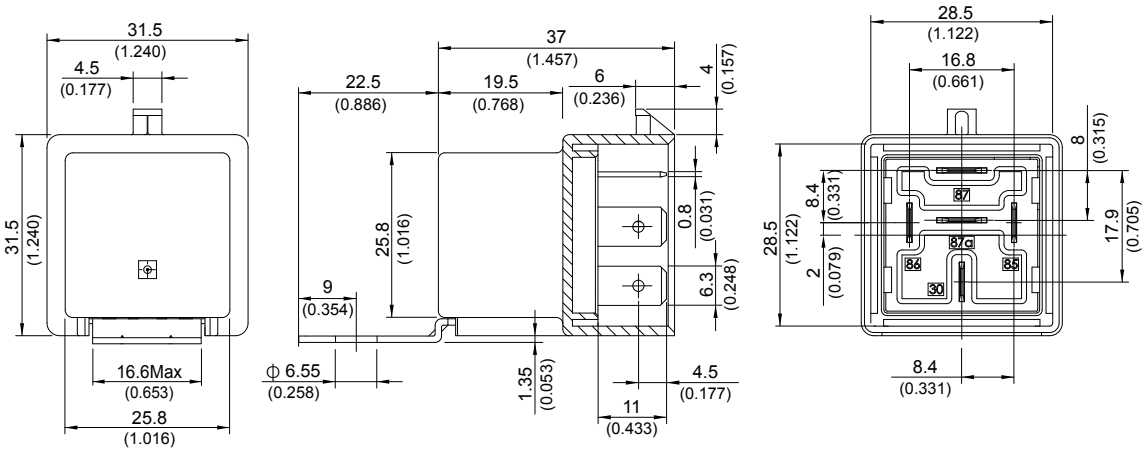
◆896,896H (C1S,D1S,S1S)



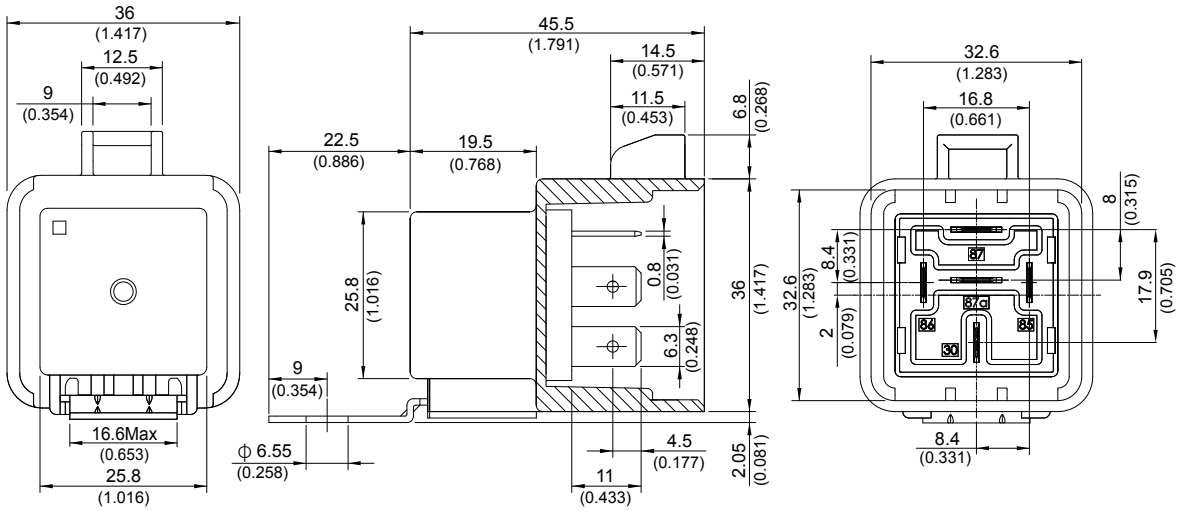
◆896P,896HP (C,D,S)



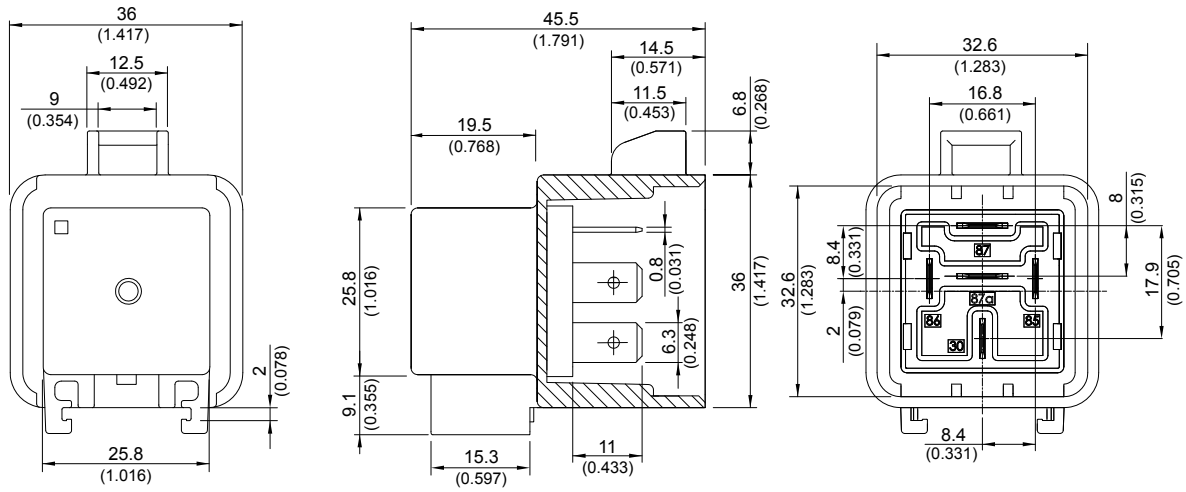
◆896H (D1SF)



◆896H (D1SW)



◆896H (DUSW)

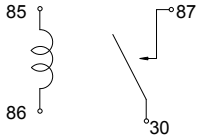


TOLERANCE:
LESS THAN: 1(0.039) ±0.1(0.004)
5(0.197) ±0.3(0.012)
20(0.787) ±0.5(0.020)
MORE THAN: 20(0.787) ±1(0.039)

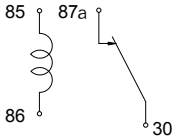
Wiring Diagram

BOTTOM VIEW

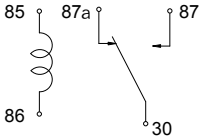
1A



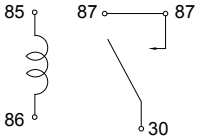
1B



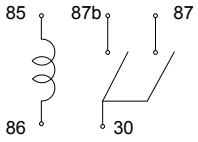
1C



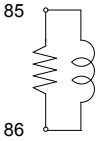
2AU



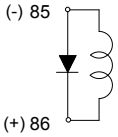
2A



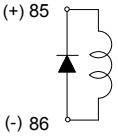
R1



001

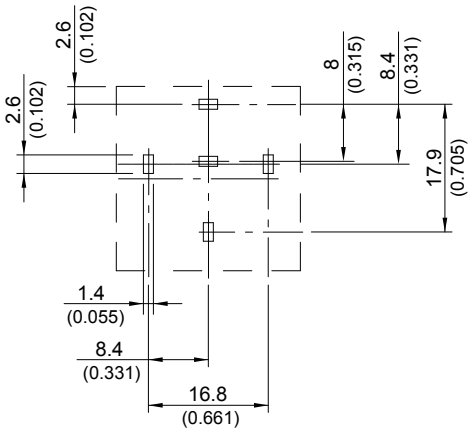


002



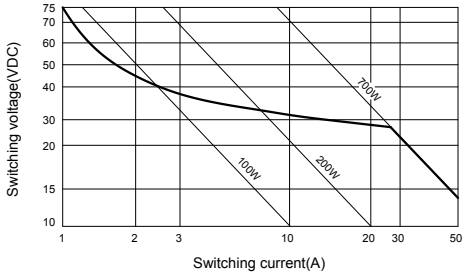
PC Board Layout

BOTTOM VIEW

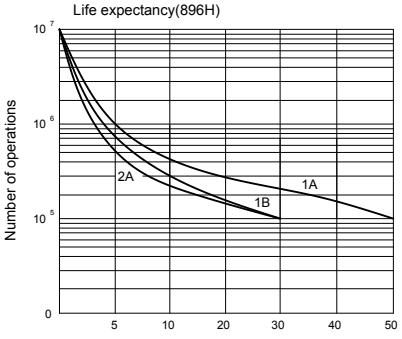


Engineering Data

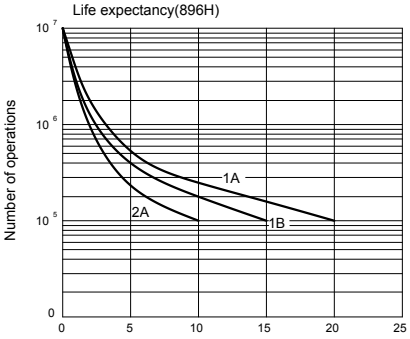
Safe breaking,arc extinguished
(normally open contact)for resistive loads(896H)



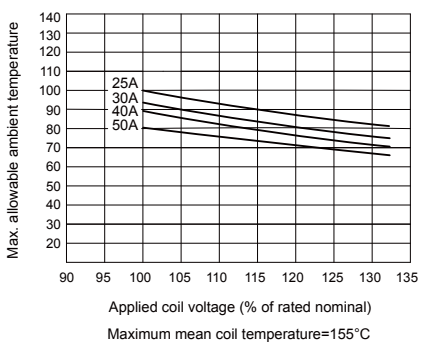
Life expectancy(896H)



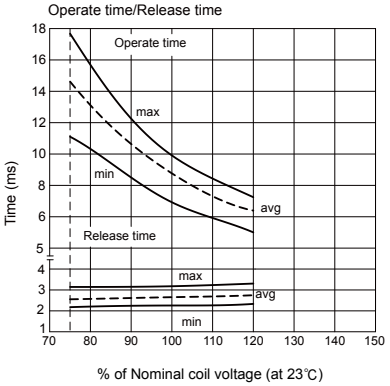
Life expectancy(896H)



Ambient temperature vs coil voltage for continuous contact load



Operate time/Release time



Max. DC load breaking capacity