Features

- ☐ High rating general purpose miniature PCB Power Relays.
- ☐ Optional for 700mW coil and 530mW coil.
- ☐ 5mm planning 16A TV-10 ideally form high inrush current breaking application for UPS, power supply and Heading Element control of Home Appliances, and lighting controls.
- ☐ High dielectric strength 5000V between coil and contacts, 1000V between contacts.
- ☐ Optional for sealed flux free & sealed washable types.
- ☐ Complies with RoHS-Directive 2011/65/EU.

Type List

Terminal style	Contact form	UL Insulation system approval	Designation (provided with)		
			Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	----------	793-P-1A	793-P-1A-V	793-P-1A-S
		F	793-P-1A-F	793-P-1A-F-V	793-P-1A-F-S
	1B (SPNC)	----------	793-P-1B	793-P-1B-V	793-P-1B-S
		F	793-P-1B-F	793-P-1B-F-V	793-P-1B-F-S
	1C (SPDT)	----------	793-P-1C	793-P-1C-V	793-P-1C-S
		F	793-P-1C-F	793-P-1C-F-V	793-P-1C-F-S

Ordering Information

793	-	P	-	1A	-	☐	-	☐	☐
1		2		3		4		5	6

1. 793 -- Basic series designation

2. P -- PCB terminal

3. 1A -- Single pole normally open
   1B -- Single pole normally closed
   1C -- Single pole double throw

4. Blank -- Standard type
   F -- Class F

5. Blank -- Flux tight
   V -- Sealed type
   S -- Sealed type washable

6. ☐ -- Coil voltage (please refer to the coil rating data for the availability)

Contact Rating

Resistive load	16A 240VAC
Max. switching current	25A
Max. switching voltage	277VAC
Max. switching capacity	3840VA

Coil Rating (DC)

◆ Standard Type

Rated voltage (V)	Rated current ±10 % at 23°C (mA)	Coil resistance ±10 % at 23°C (Ω)	Max. continuous voltage at 70°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	234	12.8	160 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.7W
5	139	36				
6	118	51				
9	78	116				
12	58	206				
18	39	463				
24	29	825				
48	15	3,300				
60	11.7	5,100				
100	7.5	13,400				

◆ High Sensitivity Type

Rated voltage (V)	Rated current ±10 % at 23°C (mA)	Coil resistance ±10 % at 23°C (Ω)	Max. continuous voltage at 70°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	176	17	170 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.53W
5	105	47.7				
6	88	68				
9	60	150				
12	44	275				
18	29	618				
24	22	1,100				
48	11	4,400				
60	8.8	6,800				

Specification

Contact material	AgSnO alloy	
Contact resistance (1)	100mΩ Max. (at 1A/6VDC by 4-wire resistance measurement)	
Operate time (1)	20ms Max.	
Release time (1)	10ms Max.	
Vibration resistance	Operating extremes	10～55Hz , amplitude 1.5 mm
	Damage limits	10～55Hz , amplitude 1.5 mm
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 1,800 ops./hr)
Operating ambient temperature	-40～+70°C (no freezing)	
Weight	Approx. 17 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) Consider the heat of PCB is necessary, please check the actual condition of PCB.

(4) Applying no diode to this relay. The life expectancy will be lower when a diode is used. To use a varistor (ZNR) could absorb the coil surge of relay that is recommended.

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

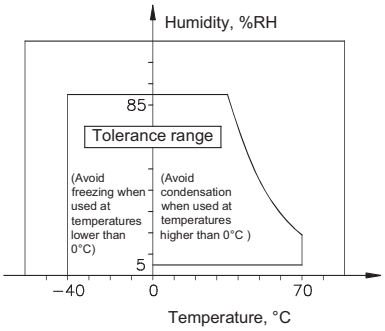
(6) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

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

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

(9) Usage, transport and storage conditions

- 1. Temperature: -40～+70°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.



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

Insulation Data

Insulation resistance (1)	1000MΩ Min. (DC 500V)	
Dielectric strength (1)	Between open contact	: AC 1000V , 50/60Hz 1 min.
	Between contact and coil	: AC 4000V , 50/60Hz 1 min. (for 1B,1C) : AC 5000V , 50/60Hz 1 min. (for 1A)
Insulation of IEC 61810-1		
Clearance / creepage distances	Between coil to contact	: Reinforce, ≧ 6.0mm / ≧ 8.0mm
	Between open contact	: Functional
Rated insulation voltage	250V	
Rated impulse withstand voltage	4000V	
Pollution degree	3	
Rated voltage	230 / 400V	
Overvoltage category	II	

Note：(1) Initial value.

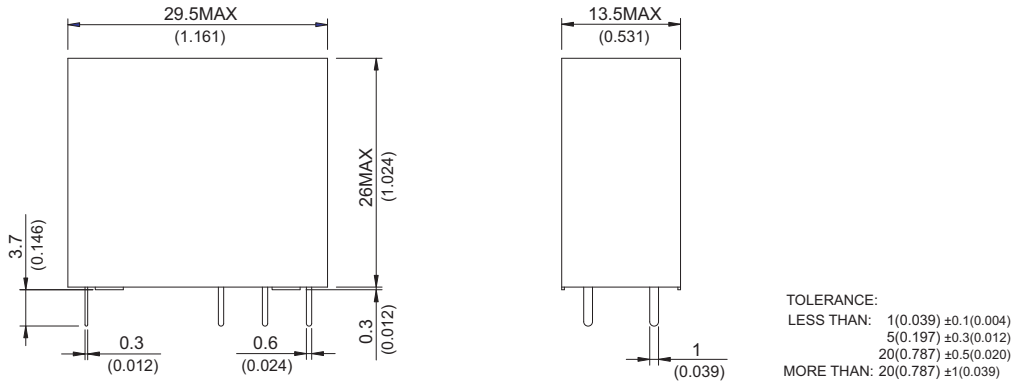
Safety Approval

Certified	UL / CUL	CSA	TUV
File No.	E88991	1616947	R50056914

Safety Approval Rating

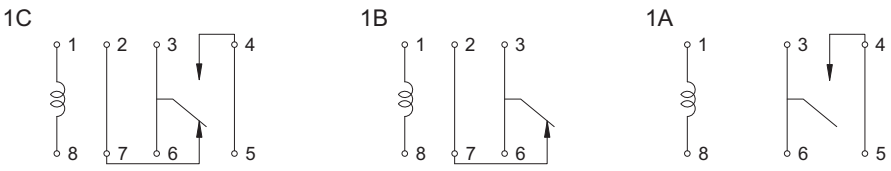
UL / CUL、CSA		TUV
NO	NC	
20A 277VAC	16A 250VAC	16A 250VAC
25A 125VAC	25A 125VAC	6A 125VAC cos ϕ 0.5
TV-10	16A 30VDC	16A 30VDC
20A 30VDC	1/2HP 250/125VAC	8A 250VAC cos ϕ 0.4
1/2HP 250/125VAC	8A FLA, 250VAC	
8A FLA, 250VAC		

Outline Dimensions



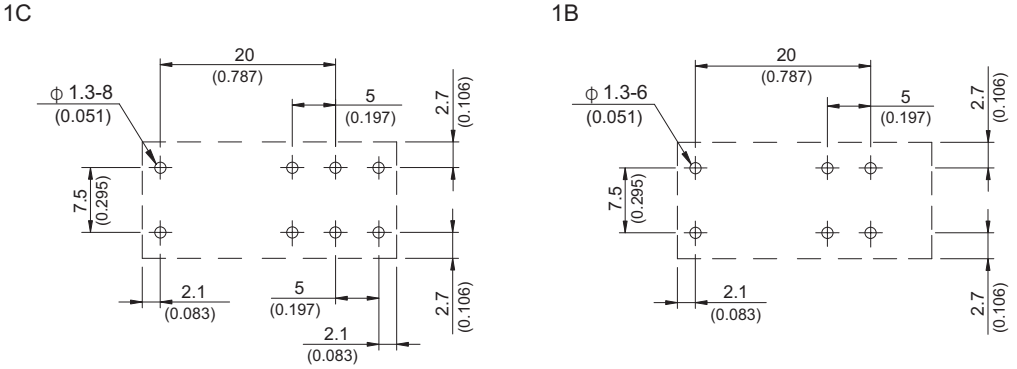
Wiring Diagram

BOTTOM VIEW

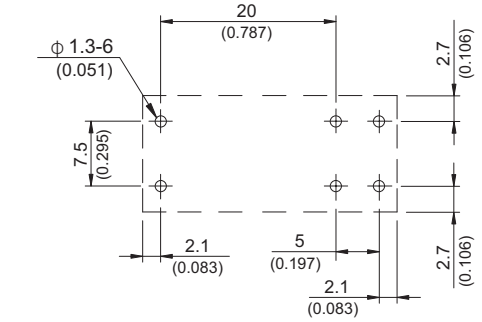


PC Board Layout

BOTTOM VIEW



1A



Engineering Data