

## »» Features

- Low cost and low profile miniature PCB Relays.
- UL/CUL, TUV approved.
- High rating 12A SPDT, 8A DPDT.
- 3.5mm & 5mm pinning are both available.
- Optional for class F.
- Standard coil 700mW and high sensitivity coil 530mW.
- SPNC, SPNO, SPDT, DPNO, DPNC, DPDT contact configurations.
- General purpose application including UPS, power supply controls, Home Appliances of heating element controls, motor control for access control, etc.
- PC board type socket & hold down clips can be offered with relay for automation control application.



## »» Type List

### ◆Standard Type

Terminal style	Contact form	High capacity	UL Insulation system approval	Designation		
				Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	H	-----	845H-1A-C	845H-1A-V	845H-1A-S
	1C (SPDT)	H	-----	845H-1C-C	845H-1C-V	845H-1C-S
	2A (DPNO)	----	-----	845-2A-C	845-2A-V	845-2A-S
	2C (DPDT)	----	-----	845-2C-C	845-2C-V	845-2C-S
	2A (DPNO)	H	-----	845H-2A-C	845H-2A-V	845H-2A-S
	2C (DPDT)	H	-----	845H-2C-C	845H-2C-V	845H-2C-S
	1A (SPNO)	H	F	845H-1A-F-C	845H-1A-F-V	845H-1A-F-S
	1C (SPDT)	H	F	845H-1C-F-C	845H-1C-F-V	845H-1C-F-S
	2A (DPNO)	----	F	845-2A-F-C	845-2A-F-V	845-2A-F-S
	2C (DPDT)	----	F	845-2C-F-C	845-2C-F-V	845-2C-F-S
	2A (DPNO)	H	F	845H-2A-F-C	845H-2A-F-V	845H-2A-F-S
	2C (DPDT)	H	F	845H-2C-F-C	845H-2C-F-V	845H-2C-F-S

### ◆High Sensitivity Type

PCB terminal	1A (SPNO)	H	-----	845HN-1A-C	845HN-1A-V	845HN-1A-S
	1C (SPDT)	H	-----	845HN-1C-C	845HN-1C-V	845HN-1C-S
	2A (DPNO)	----	-----	845N-2A-C	845N-2A-V	845N-2A-S
	2C (DPDT)	----	-----	845N-2C-C	845N-2C-V	845N-2C-S
	2A (DPNO)	H	-----	845HN-2A-C	845HN-2A-V	845HN-2A-S
	2C (DPDT)	H	-----	845HN-2C-C	845HN-2C-V	845HN-2C-S
	1A (SPNO)	H	F	845HN-1A-F-C	845HN-1A-F-V	845HN-1A-F-S
	1C (SPDT)	H	F	845HN-1C-F-C	845HN-1C-F-V	845HN-1C-F-S

PCB terminal	2A (DPNO)	-----	F	845N-2A-F-C	845N-2A-F-V	845N-2A-F-S
	2C (DPDT)	-----	F	845N-2C-F-C	845N-2C-F-V	845N-2C-F-S
	2A (DPNO)	H	F	845HN-2A-F-C	845HN-2A-F-V	845HN-2A-F-S
	2C (DPDT)	H	F	845HN-2C-F-C	845HN-2C-F-V	845HN-2C-F-S

### »» Ordering Information

845 H N - 1A - F - C  
 1 2 3 4 5 6

- |                                    |                                 |
|------------------------------------|---------------------------------|
| 1. 845 -- Basic series designation | 2A -- Double pole normal open   |
| 2. Blank -- Standard type          | 2B -- Double pole normal closed |
| H -- High capacity type            | 2C -- Double pole double throw  |
| 3. Blank -- Standard type          | 5. Blank -- Standard type       |
| N -- High sensitivity type         | F -- Class F                    |
| 4. 1A -- Single pole normally open | 6. C -- Flux tight              |
| 1B -- Single pole normally closed  | V -- Sealed type                |
| 1C -- Single pole double throw     | S -- Sealed type washable       |

### »» Contact Rating

Load type	(845H) 1A , 1B , 1C	(845) 2A , 2B , 2C	(※) (845H) 2A , 2B , 2C
Rated load (resistive)	10A 240VAC	5A 240VAC	8A 240VAC
Max. switching current	10A	5A	8A
Max. switching voltage	277VAC	277VAC	277VAC
Max. switching capacity	2400VA	1200VA	1920VA

### »» 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 85 °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	460				
24	29	825				
36	19.5	1850				
48	15	3300				
60	11.7	5100				
110	6.4	17,230				

## ◆High Sensitivity Type

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C ( $\Omega$ )	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
3	176	17	170 % of rated voltage	80 % of rated voltage	10 % of rated voltage	approx. 0.53W
5	105	47.7				
6	88	68				
9	60	150				
12	44	275				
18	29.5	610				
24	22	1100				
36	14.8	2440				
48	11	4400				
60	8.8	6800				

## »» Specification

Contact material	AgSnO alloy	
Contact resistance <sup>(1)</sup>	100m $\Omega$ Max.	
Operate time <sup>(1)</sup>	20ms Max.	
Release time <sup>(1)</sup>	10ms Max.	
Insulation resistance <sup>(1)</sup>	1000 M $\Omega$ Min. (DC 500V)	
Dielectric strength <sup>(1)</sup>	Between open contact	: AC 1000V , 50/60Hz 1 min.
	Between contact and coil	: AC 5000V , 50/60Hz 1 min.
	Between contact circuits	: AC 3000V , 50/60Hz 1 min. (for 2pole only)
Vibration resistance	Operating extremes	10~55Hz , amplitude 1.5 mm
	Damage limit	10~55Hz , amplitude 1.5 mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 operations (frequency 18,000 operations/hr)
	Electrical	100,000 operations (※) 50,000 operations (frequency 1,200 operations/hr)
Operating ambient temperature	-40°C~+85°C (no freezing)	
Weight	Approx. 14g	

Note : (1) initial value

## »» Safety Approval

Certified	UL / CUL	TUV
File No.	E88991	R09754104

### »» Safety Approval Rating(UL/CUL)

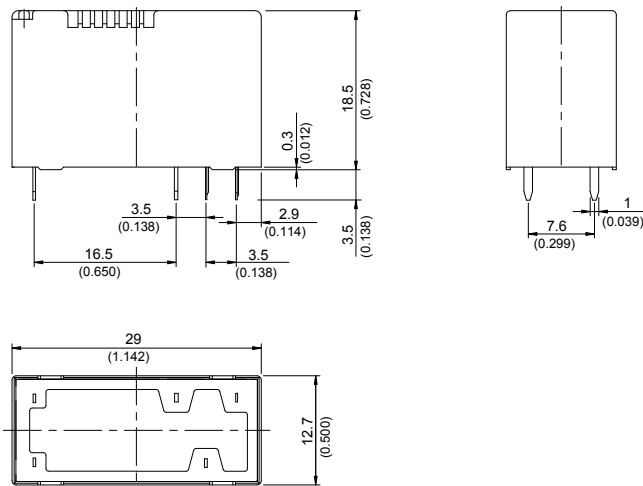
845 2A , 2B , 2C	845H 2A , 2B , 2C	845H 1A , 1B , 1C
5A 277VAC	8A 277VAC	12A 277VAC
5A 30VDC	8A 30VDC	12A 30VDC
1/8HP 125VAC/250VAC	1/4HP 125VAC/250VAC	1/2HP 125VAC/250VAC
TV-3 (NO contact only)	TV-3 (NO contact only)	TV-5 (NO contact only)

### »» Safety Approval Rating(TUV)

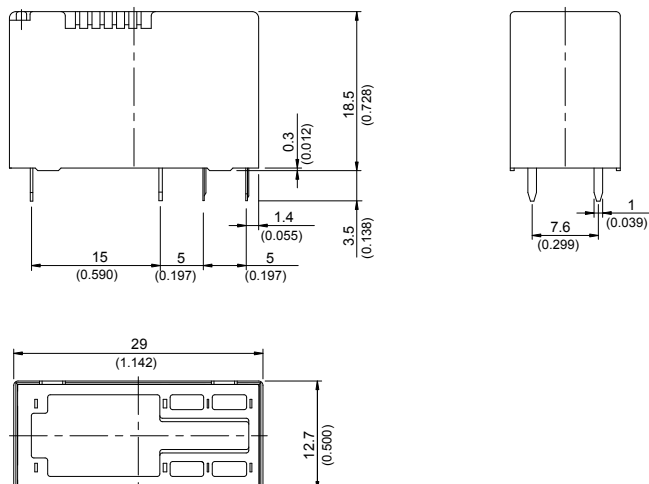
845 2A , 2B , 2C	845H 2A , 2B , 2C	845H 1A , 1B , 1C
5A 250VAC	8A 250VAC	12A 250VAC
5A 30VDC	8A 30VDC	12A 30VDC
3A 250VAC $\cos\phi$ 0.4	5A 250VAC $\cos\phi$ 0.4	10A 250VAC $\cos\phi$ 0.4

### »» Outline Dimensions

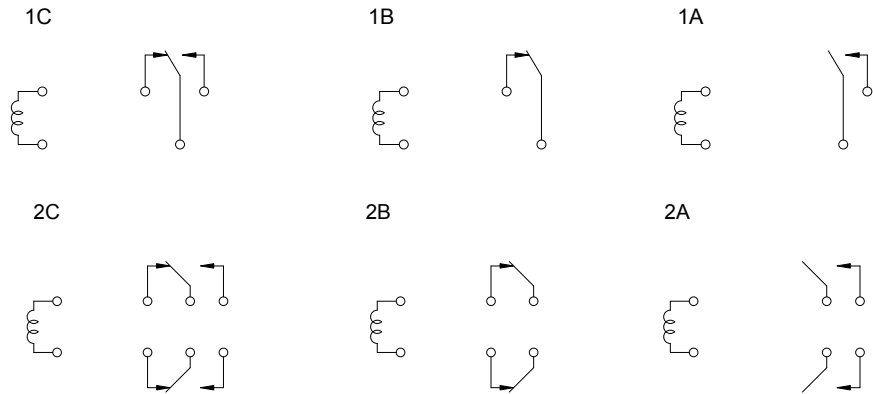
#### ◆ 845 1P



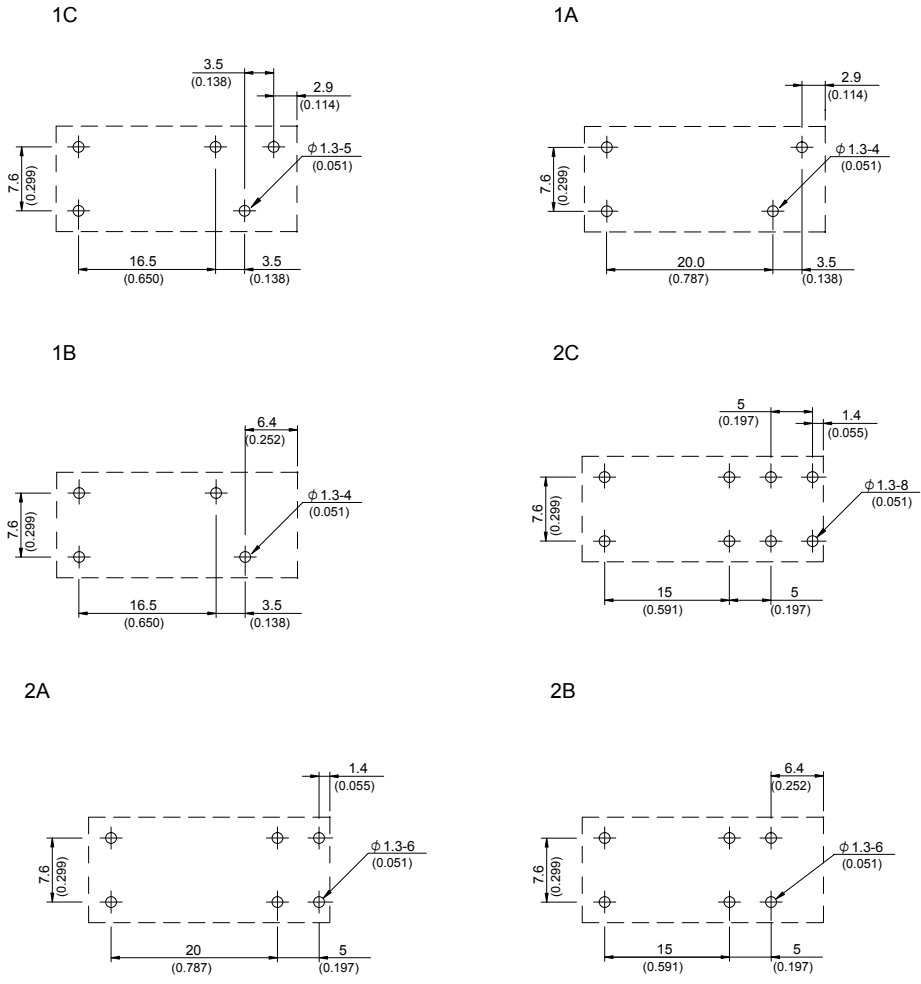
#### ◆ 845 2P



## »» Wiring Diagram BOTTOM VIEW

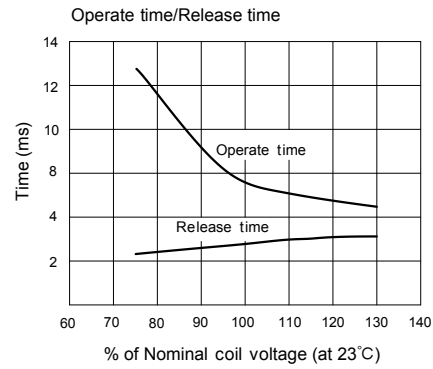
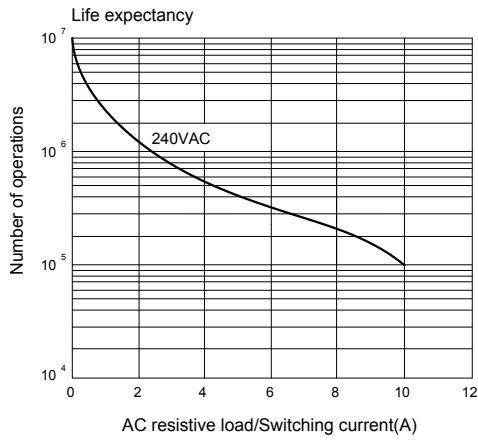
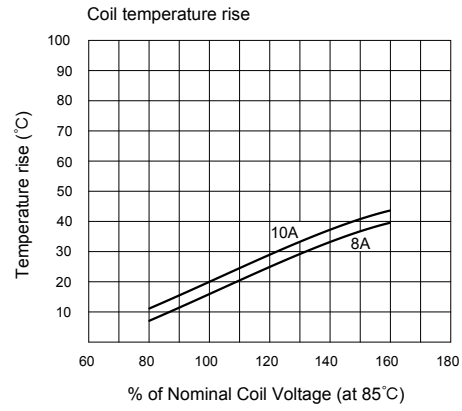
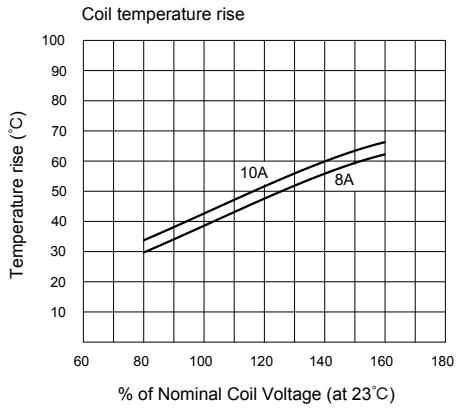


## »» PC Board Layout BOTTOM VIEW



## »» Engineering Data

### ◆845H-1P(Standard type)



### ◆845H-2P(Standard type)

