



»» 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.
- 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.
- Complies with RoHS-Directive 2011/65/EU.

»» 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 - 1A - - C

1 2 3 4 5 6 7

- | | | | |
|----------|--------------------------------|-----------------------------|---|
| 1. 845 | -- Basic series designation | 2B | -- Double pole normally closed |
| 2. Blank | -- Standard type | 2C | -- Double pole double throw |
| H | -- High capacity type | 5. Blank | -- Standard type |
| 3. Blank | -- Standard type | F | -- Class F |
| N | -- High sensitivity type | 6. C | -- Flux tight |
| 4. 1A | -- Single pole normally open | V | -- Sealed type |
| 1B | -- Single pole normally closed | S | -- Sealed type washable |
| 1C | -- Single pole double throw | 7. <input type="checkbox"/> | -- Coil voltage (please refer to the coil rating data for the availability) |
| 2A | -- Double pole normally open | | |

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 ±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	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 ⁽¹⁾	100mΩ Max. (1A/6VDC by 4 pipes mΩ meter)	
Operate time ⁽¹⁾	20ms Max.	
Release time ⁽¹⁾	10ms Max.	
Insulation resistance ⁽¹⁾	1000 MΩ Min. (DC 500V)	
Dielectric strength ⁽¹⁾	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. Operate and release time excluding contact bounce.

»» Safety Approval

Certified	UL / CUL	TUV
File No.	E88991	R09754104

»» Safety Approval Rating(UL/CUL)

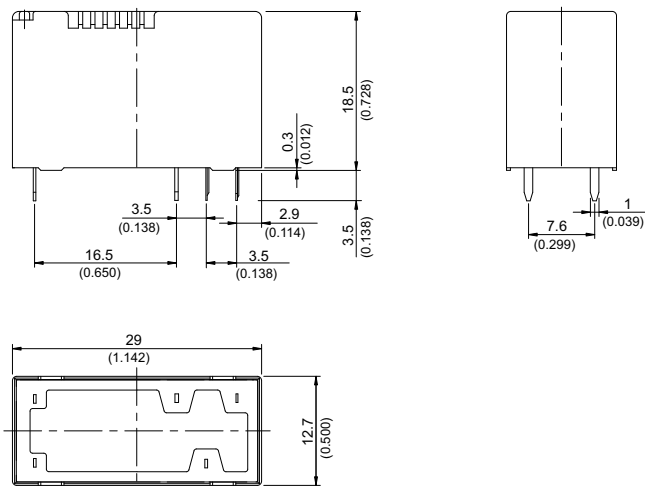
845 2A , 2B , 2C	845H 2A , 2B , 2C	845H 1A , 1B , 1C
5A 277VAC	8A 277VAC	12A 277VAC
5A 30VDC	8A 30VDC	12A 30VDC
1/8HP 125VAC/250VAC	1/4HP 125VAC/250VAC	1/2HP 125VAC/250VAC
TV-3 (NO contact only)	TV-3 (NO contact only)	TV-5 (NO contact only)

»» Safety Approval Rating(TUV)

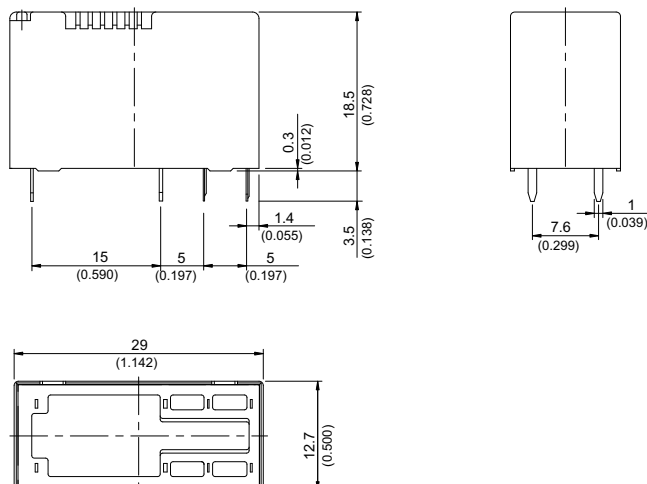
845 2A , 2B , 2C	845H 2A , 2B , 2C	845H 1A , 1B , 1C
5A 250VAC	8A 250VAC	12A 250VAC
5A 30VDC	8A 30VDC	12A 30VDC
3A 250VAC $\cos\phi$ 0.4	5A 250VAC $\cos\phi$ 0.4	10A 250VAC $\cos\phi$ 0.4

»» Outline Dimensions

◆845 1P



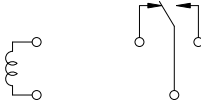
◆845 2P



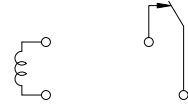
845

»» Wiring Diagram BOTTOM VIEW

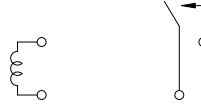
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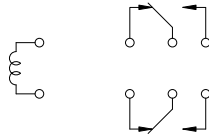
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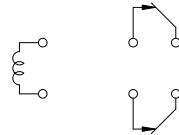
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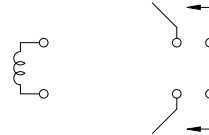
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2B

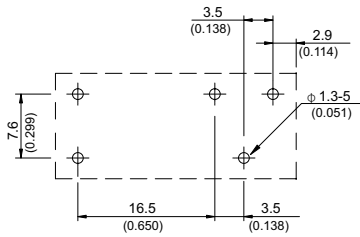


2A

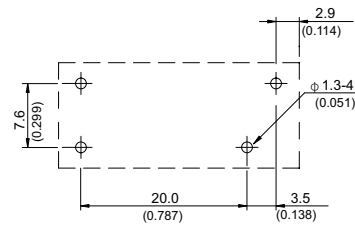


»» PC Board Layout BOTTOM VIEW

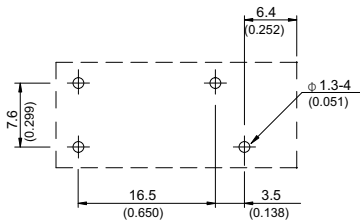
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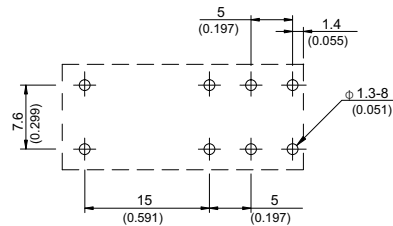
1A



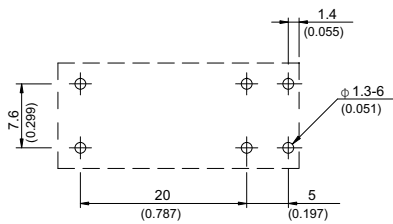
1B



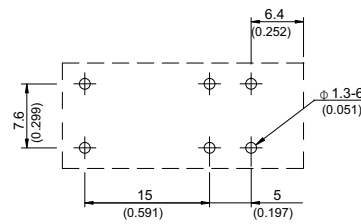
2C



2A

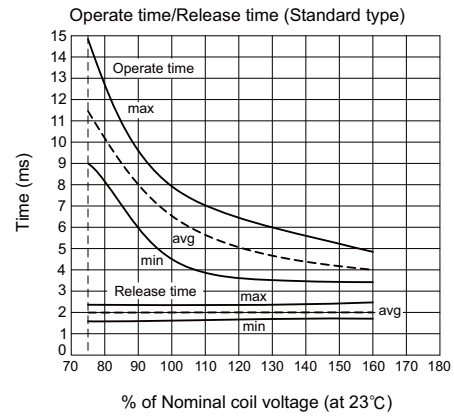
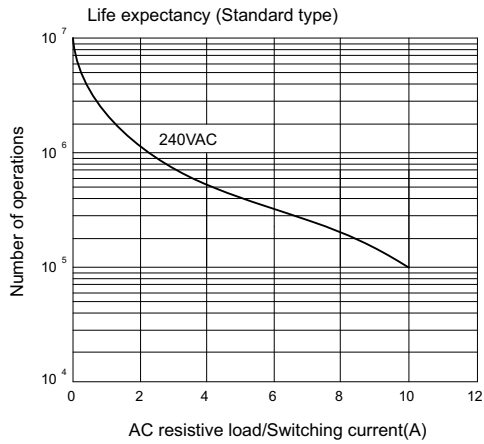
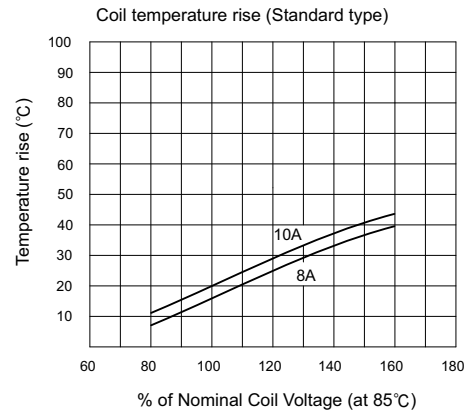
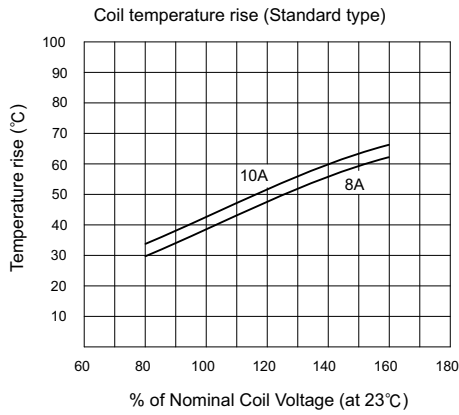


2B



»» Engineering Data

◆ 845H-1P



◆ 845-2P

