

821



### »» Features



- Miniature 25A 250VAC Power Relays.
- UL, CSA and TUV approved.
- With and without quick terminals on top.
- Inductive load  $\text{COS } \phi = 0.7$ , 20A 250VAC, inrush 80A 250VAC, 400ms suitable for compressor load switching and HVAC applications.
- Comply with RoHS-Directive 2002/95/EC.

### »» Type List

Terminal style	Contact form	Designation
W (Quick terminal)	1A (SPNO)	821-W-1A-C
P (PCB terminal)	1A (SPNO)	821-P-1A-C

### »» Ordering Information

821 - W - 1A - C  
 1        2        3        4

- |  |                                    |
|--|------------------------------------|
| 1. 821 -- Basic series designation   | 3. 1A -- Single pole normally open |
| 2. W -- With quick terminals<br>P -- With printed circuit board wiring terminals | 4. C -- Dust cover                 |

### »» Contact Rating

Resistive load	25A 240VAC, 20A 30VDC
Inductive load ( $\text{cos}\phi 0.7$ )	20A 250VAC (Inrush 80A)

### »» Coil Rating (DC)

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C ( $\Omega$ )	Max. continuous voltage at 55°C	Pick up voltage(Max) at 23°C	Drop out voltage(Min) at 23°C	Power consumption at rated voltage
5	180	27.8	120 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.9W
6	150	40				
9	100	90				
12	75	160				
24	38	640				
48	19	2560				

### »» Specification

Contact material	AgSnO alloy
Contact resistance <sup>(1)</sup>	50m $\Omega$ Max.

Operate time <sup>(1)</sup>	20ms Max.	
Release time <sup>(1)</sup>	10ms Max.	
Insulation resistance <sup>(1)</sup>	100 MΩ Min. (DC 500V)	
Dielectric strength <sup>(1)</sup>	Between open contact	: AC 1200V , 50/60Hz 1 min.
	Between contact and coil	: AC 3600V , 50/60Hz 1 min.
Vibration resistance	Operating extremes	10~50Hz , amplitude 1.0 mm
	Damage limits	10~50Hz , amplitude 2.0 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 (frequency 1,200 operations/hr)
Operating ambient temperature	-25~+55°C (no freezing)	
Weight	Approx. 27.3 g	

Note : (1) initial value

### »» Safety Approval

Certified	UL	CSA	TUV
File No.	E88991	LR90143	R 09452438

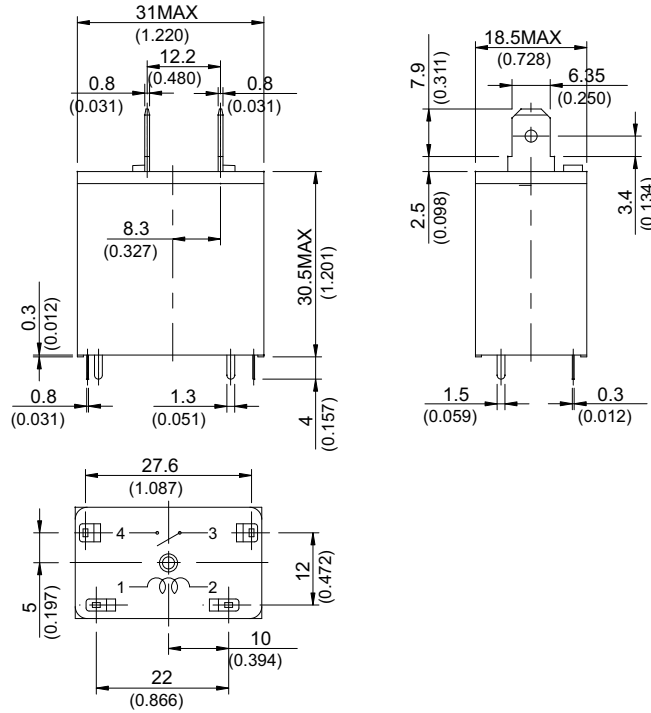
### »» Safety Approval Rating

UL	CSA	TUV
25A 250VAC	25A 250VAC	25A 250VAC
20A 30VDC	20A 30VDC	20A 30VDC
1HP 125VAC	1HP 125VAC	20A 250VAC cosφ 0.7
1-1/2HP 250VAC	1-1/2HP 250VAC	12A 250VAC cos φ 0.4
TV-10	TV-10	

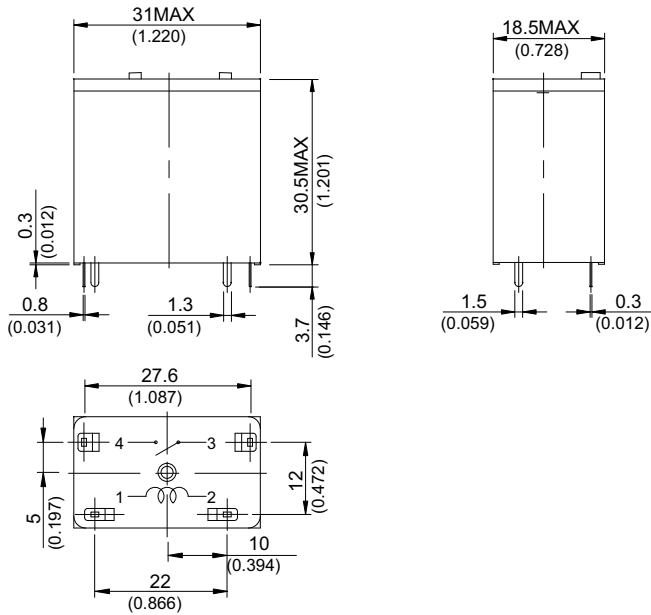
# 821

## »» Outline Dimensions

### ◆ 821-W

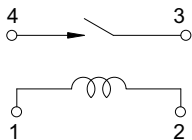


### ◆ 821-P



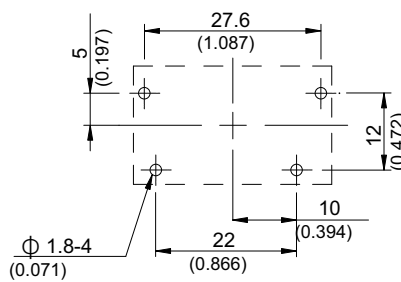
## »» Wiring Diagram

BOTTOM VIEW



## »» PC Board Layout

BOTTOM VIEW



## »» Engineering Data

