

»» 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
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 (Ω)	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 ⁽¹⁾	50m Ω Max. (1A/6VDC by 4 pipes m Ω meter)

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Operate time ⁽¹⁾	20ms Max.	
Release time ⁽¹⁾	10ms Max.	
Insulation resistance ⁽¹⁾	100 MΩ Min. (DC 500V)	
Dielectric strength ⁽¹⁾	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

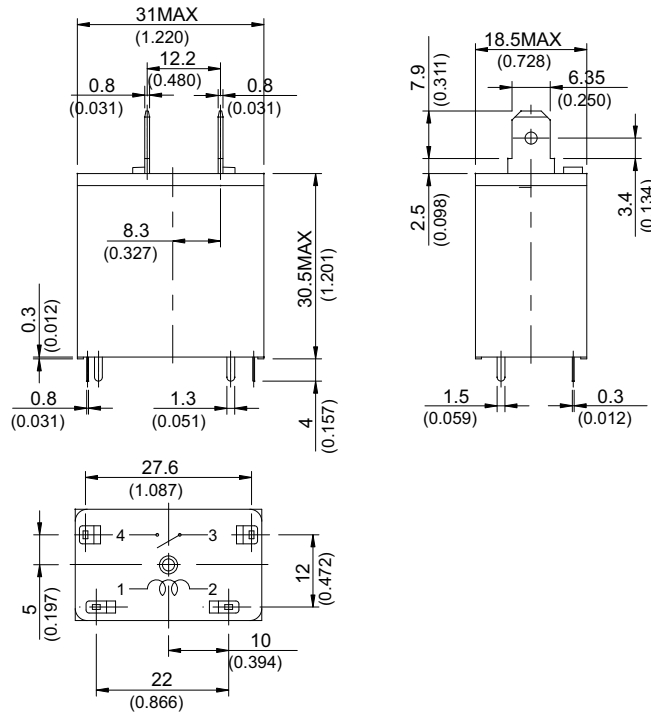
Certified	UL	CSA	TUV
File No.	E88991	LR90143	R 09452438

»» Safety Approval Rating

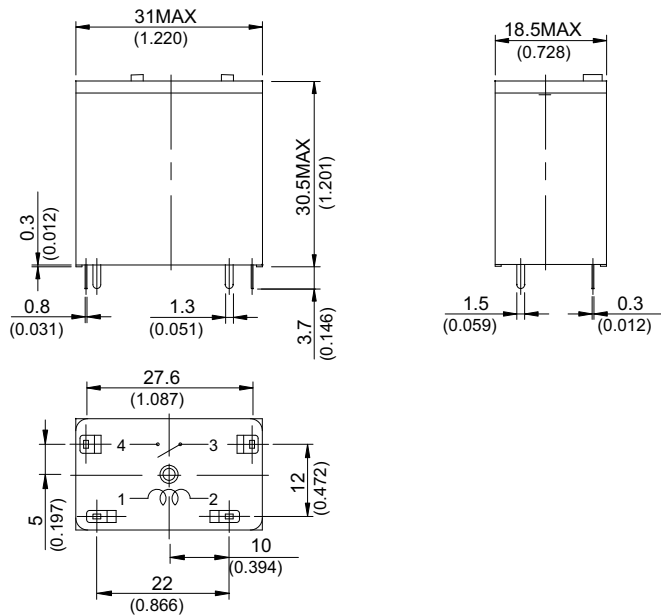
UL	CSA	TUV
25A 250VAC	25A 250VAC	25A 250VAC
20A 30VDC	20A 30VDC	20A 30VDC
1HP 125VAC	1HP 125VAC	20A 250VAC cosφ 0.7
1-1/2HP 250VAC	1-1/2HP 250VAC	12A 250VAC cos φ 0.4
TV-10	TV-10	

»» Outline Dimensions

◆ 821-W

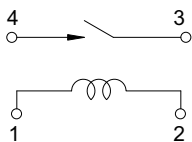


◆ 821-P



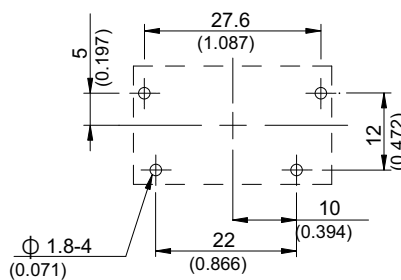
»» Wiring Diagram

BOTTOM VIEW



»» PC Board Layout

BOTTOM VIEW



»» Engineering Data

