

»» 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. |

| | | |
|--------------------------------------|--------------------------|---|
| 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

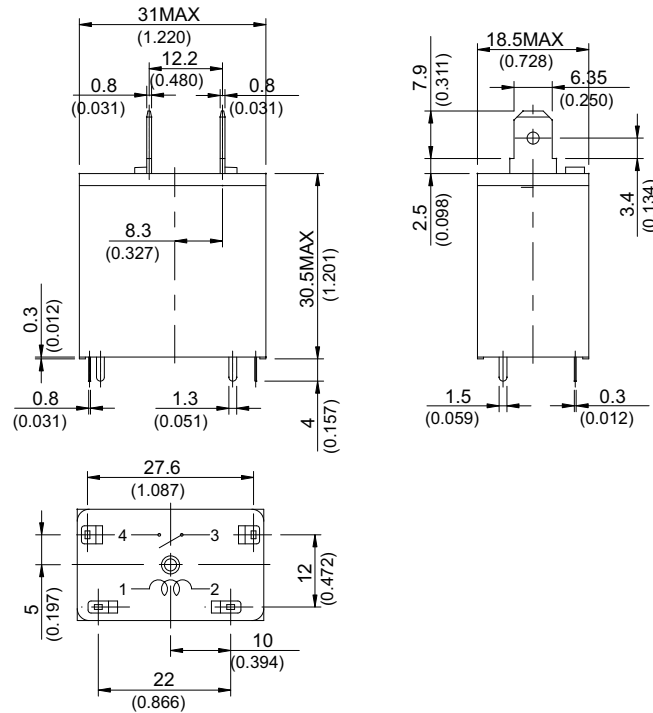
| Certified | UL | CSA | TUV |
|-----------|--------|---------|------------|
| File No. | E88991 | LR90143 | R 09452438 |

»» Safety Approval Rating

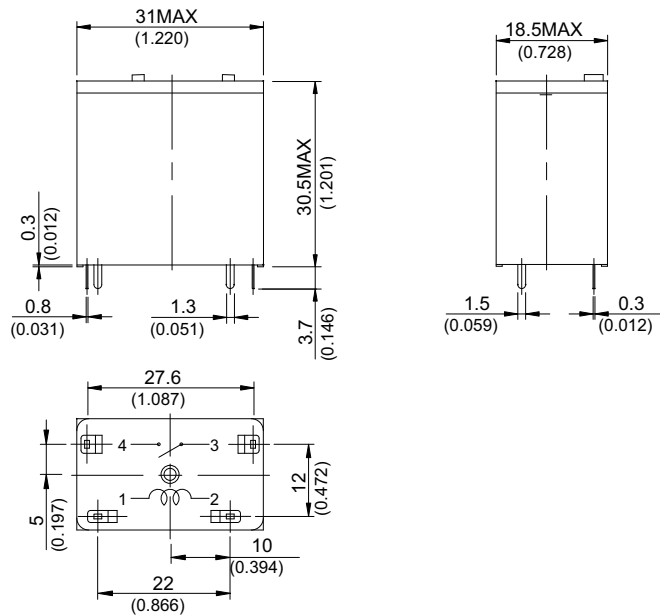
| UL | CSA | TUV |
|----------------|----------------|----------------------|
| 25A 250VAC | 25A 250VAC | 25A 250VAC |
| 20A 30VDC | 20A 30VDC | 20A 30VDC |
| 1HP 125VAC | 1HP 125VAC | 20A 250VAC cosφ 0.7 |
| 1-1/2HP 250VAC | 1-1/2HP 250VAC | 12A 250VAC cos φ 0.4 |
| TV-10 | TV-10 | |

»» Outline Dimensions

◆ 821-W

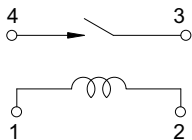


◆ 821-P



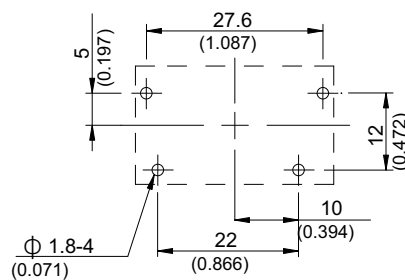
»» Wiring Diagram

BOTTOM VIEW



»» PC Board Layout

BOTTOM VIEW



»» Engineering Data

