

NVF4-1 & NVF4-2



NVF4-1 NVF4-2 NVF4-2b
 26.5 × 26.5 × 24.5(+16) 35.5 × 35.5 × 45(+21.8)

Features

- Small size and light weight.
- Heavy contact load (40A).
- Suitable for automobile and lamp accessories application.
- PC board mounting and direct insert mounting available.
- 24V versions with contact gap >0.8mm.

Ordering Information

NVF4-1 C Z 30 b DC12V 1.6 C D

1 2 3 4 5 6 7 8 9

| | |
|--|---|
| 1 Part number: NVF4-1, NVF4-2 (Insulation Bracket), NVF4-2a (With Metal Bracket), Contact Arrangement: 1A, 1B, 1C, 1U) NVF4-2b (Shrouded Type With Metal Bracket) | 5 Terminals: b: PCB type: a1: plug in type 1; a2: plug in type 2 6 Coil rated voltage (V): DC: 6, 12, 24, 48 7 Coil power consumption: 1.6: 1.6W; 1.9: 1.9W; 2.3: 2.3W; 2.6: 2.6W |
| 2 Contact arrangement: A: 1A1; A2: 1A2; B: 1B; C: 1C; C2: 1C2; U: 1U | 8 Contact material: C: AgCdO; N: AgNi; NIL: AgSnO ₂ |
| 3 Enclosure: S: Sealed type; Z: Dust cover; | 9 Coil transient suppression: D: with diode; 2D: with two diodes; R: with resistance; DR: with diode and resistance; NIL: standard |
| 4 Contact current: A Form: 20A, 40A; B Form: 20A, 30A; C Form: 15A, 20A, 30A, 40A; U Form: 2 × 15A, 2 × 20A | |

Contact Data

| | | | | |
|------------------------------------|---|--|---|--------------------------------|
| Contact Arrangement | 1A (SPSTNO), 1B (SPSTNC), 1C (SPDT(B-M)), 1U (SPSTNODM) | | | |
| Contact Material | AgCdO, AgSnO ₂ , AgNi | | | |
| Contact Rating (resistive) | 1A | 1B | 1C | 1U |
| | 40A/14VDC 20A/24VDC | 30A/14VDC 20A/24VDC | NO: 40A/14VDC NC: 30A, 40A/14VDC 15A, 20A/24VDC | 2 × 20A/14VDC 2 × 15A/24VDC |
| Max. Switching Power | 630W | | | |
| Max. Switching Voltage | 75VDC Max. Switching Current: 40A | | | |
| Contact Resistance or Voltage drop | < 30mΩ Item 4.12 of IEC 61810-7 | | | |
| Operation life | Electrical | 10 ⁵ Item 4.30 of IEC 61810-7 | | |
| | Mechanical | 10 ⁷ Item 4.31 of IEC 61810-7 | | |

NOTE: Special high performance 24V version with contact gap >0.8mm; Limiting continuous current at 125°C: NC/NO: 10A/15A, 1U: 2 × 11A.

Coil Parameter

| Dash numbers | Coil voltage VDC | | Coil resistance Ω ± 10% | Pick up voltage VDC (max) (65% of rated voltage) | Release voltage VDC (min) (10% of rated voltage) | Coil power consumption W | Operate Time ms | Release Time ms |
|--------------|------------------|------|-------------------------|--|--|--------------------------|-----------------|-----------------|
| | Rated | Max. | | | | | | |
| 006-1600 | 6 | 7.8 | 22.5 | 3.9 | 0.6 | 1.6 | < 7 | < 5 |
| 009-1600 | 9 | 11.7 | 50.6 | 5.9 | 0.9 | | | |
| 012-1600 | 12 | 15.6 | 90 | 7.8 | 1.2 | | | |
| 024-1600 | 24 | 31.2 | 360 | 15.6 | 2.4 | 1.9 | | |
| 048-1600 | 48 | 62.4 | 1440 | 31.2 | 4.8 | | | |
| 006-1900 | 6 | 7.8 | 19 | 3.9 | 0.6 | | | |
| 012-1900 | 12 | 15.6 | 75.8 | 7.8 | 1.2 | 2.3 | | |
| 024-1900 | 24 | 31.2 | 303.2 | 15.6 | 2.4 | | | |
| 006-2300 | 6 | 7.8 | 15.6 | 3.9 | 0.6 | | | |
| 012-2300 | 12 | 15.6 | 62.6 | 7.8 | 1.2 | 2.6 | | |
| 024-2300 | 24 | 31.2 | 250.4 | 15.6 | 2.4 | | | |
| 006-2600 | 6 | 7.8 | 13.8 | 3.9 | 0.6 | | | |
| 012-2600 | 12 | 15.6 | 55.4 | 7.8 | 1.2 | 2.4 | | |
| 024-2600 | 24 | 31.2 | 221.5 | 15.6 | 2.4 | | | |

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
 2. Pickup and release voltage are for test purposes only and are not to be used as design criteria.

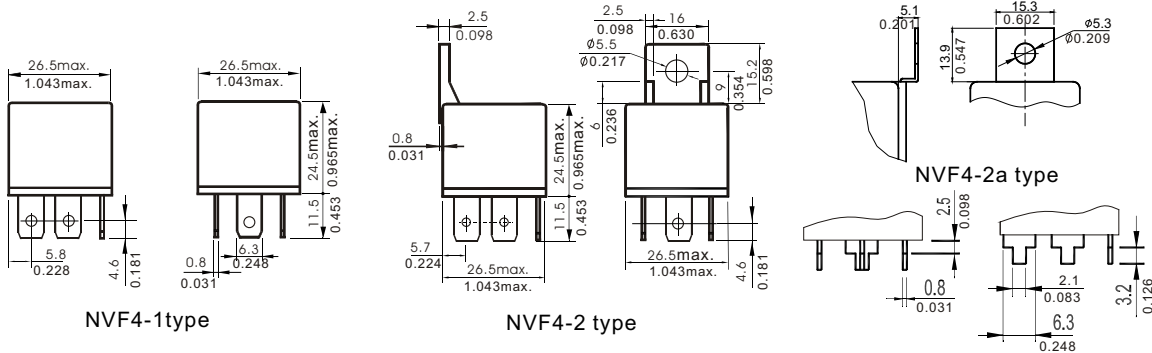
Operation condition

| | | |
|---|-------------------------------------|--|
| Insulation Resistance ¹⁾ | 100MΩ min (at 500VDC) | Item 7 of IEC 60255-5 |
| Dielectric Strength ¹⁾ Between contacts Between contact and coil | 50Hz 500V 50Hz 750V | Item 6 of IEC 60255-5 Item 6 of IEC 60255-5 |
| Shock resistance | 147m/s ² 11ms | IEC 68-2-27 Test Ea |
| Vibration resistance | 10Hz~40Hz double amplitude 1.5mm | IEC 68-2-6 Test Fc |
| Terminals strength | 8N 4N (PC type) | IEC 68-2-21 Test Ua2 |
| Solderability | 235°C ± 2°C 3s ± 0.5s | IEC 68-2-20 Test Ta method 1 |
| Ambient Temperature | -40°C ~ 125°C | |
| Relative Humidity | 85% (at 40°C) | IEC 68-2-3 Test Ca |
| Mass | 31g(NVF4-1);36g(NVF4-2)45g(NVF4-2b) | |

Note: 1). When testing, coil terminals should be connected, If coil transient suppression is installed in relay .

Dimensions

mm /inch



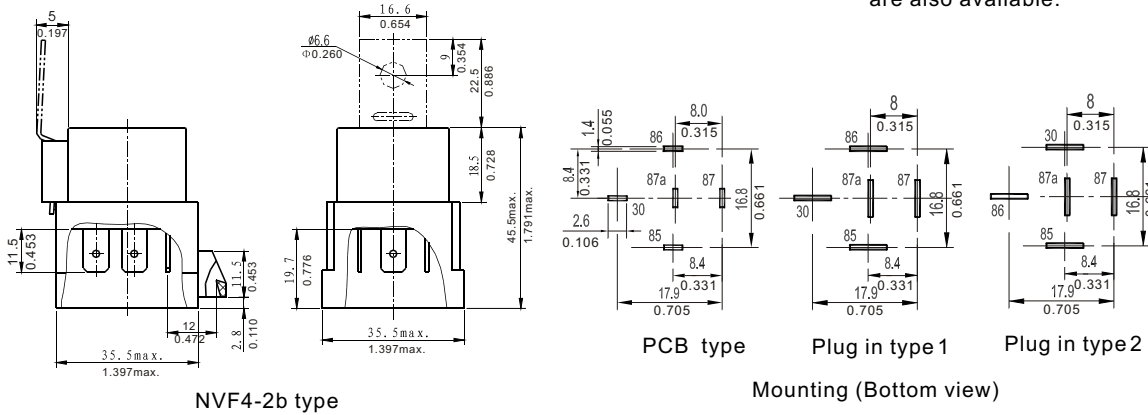
NVF4-1 type

NVF4-2 type

NVF4-2a type

Dimensions

Note: Terminals as shown above are also available.



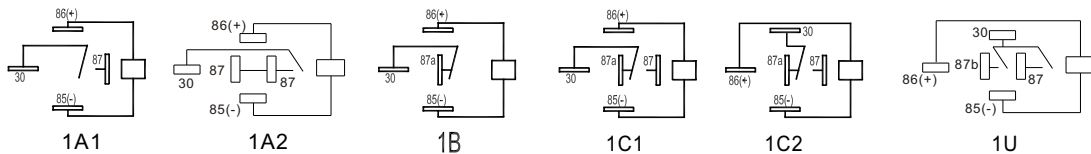
NVF4-2b type

PCB type

Plug in type 1

Plug in type 2

Mounting (Bottom view)



Wiring diagram (Bottom view)

NOTES 1).Dimensions are in millimeters.
2).Inch equivalents are given for general information only.