

# NVF4-1 & NVF4-2



NVF4-1 26.5×26.5×24.5  
 NVF4-2 26.5×26.5×24.5(+16)

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.	

Ordering Information	
<b>NVF4-1 C Z 30 b DC12V 1.6 C D</b>	
1 2 3 4 5 6 7 8 9	
1 Part number: NVF4-1, NVF4-2 (Insulation Bracket), NVF4-2a (Shrouded Type With Metal Bracket, Contact Arrangement: 1A, 1B, 1C), NVF4-2b (Shrouded Type With Metal Bracket, Contact Arrangement: 1U)	5 Terminals: b: PCB type; a1: plug in type 1; a2: plug in type 2
2 Contact arrangement: A: 1A; B: 1B; C: 1C; C2: 1C2; U: 1U	6 Coil rated voltage (V): DC: 6, 12, 24
3 Enclosure: S: Sealed type; Z: Dust cover;	7 Coil power consumption: 1.6: 1.6W; 1.9: 1.9W
4 Contact current: A Form: 2×20A, 40A; B Form: 30A; C Form: 30A, 40A; U Form: 2×20A	8 Contact material: C: AgCdO; N: AgNi; NIL: AgSnO <sub>2</sub>
	9 Coil transient suppression: D: with diode; 2D: with two diodes; R: with resistance; DR: with diode and resistance; NIL: standard

Contact Data				
Contact Arrangement	1A (SPSTNO), 1B (SPSTNC), 1C (SPDT(B-M)), 1U (SPSTNODM)			
Contact Material	AgSnO <sub>2</sub> , AgNi			
Contact Rating (resistive)	1A	1B	1C	1U
	40A, 2×20A/14VDC	30A/14VDC	NO: 40A/14VDC NC: 30A, 40A/14VDC	2×20A/14VDC
Max. Switching Power	630W			
Max. Switching Voltage	75VDC			
Contact Resistance or Voltage drop	≤ 30mΩ			
	Item 4.12 of IEC 61810-7			
Operation life	Electrical	10 <sup>8</sup>		
	Mechanical	10 <sup>7</sup>		
		Item 4.30 of IEC 61810-7		
		Item 4.31 of IEC 61810-7		

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			
048-1600	48	62.4	1440	31.2	4.8			
006-1900	6	7.8	19	3.9	0.6	1.9	<7	<5
012-1900	12	15.6	75.8	7.8	1.2			
024-1900	24	31.2	303.2	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. Pick up and release voltage are for test purposes only and are not to be used as design criteria.

### Operation condition

Insulation Resistance <sup>1)</sup>	100MΩ min (at 500VDC)	Item 7 of IEC 61810-5
Dielectric Strength <sup>1)</sup>		
Between contacts	50Hz 500V	Item 6 of IEC 61810-5
Between contact and coil	50Hz 750V	Item 6 of IEC 61810-5
Shock resistance	147m/s <sup>2</sup> 11ms	IEC68-2-27 Test Ea
Vibration resistance	10~40Hz double amplitude 1.5mm	IEC68-2-6 Test Fc
Terminals strength	8N 4N (PC type)	IEC68-2-21 Test Ua2
Solderability	235°C ±2°C 3±0.5s	IEC68-2-20 Test Ta method 1
Ambient Temperature	-40~125°C	
Relative Humidity	85% (at 40°C)	IEC68-2-3 Test Ca
Mass	31g (NVF4-1); 36g (NVF4-2)	

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

### Dimensions

**Dimensions** mm / inch

Note: Terminals as shown above are also available.

Wiring diagram (Bottom view)

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

### Reference Data

