

## NVF4-1 & NVF4-2



NVF4-1      NVF4-2      NVF4-2b  
 26.5×26.5×24.5(+15.5)    35.5×35.5×45.5(+22.5)

Features
<ul style="list-style-type: none"> <li>Small size and light weight.</li> <li>Heavy contact load (40A).</li> <li>Suitable for automobile and lamp accessories application.</li> <li>PC board mounting and direct insert mounting available.</li> </ul>

Ordering Information
<p><b><u>NVF4-1 C - Z 30 b DC12V 1.6 D</u></b></p> <p>1      2      3      4      5      6      7      8</p>
<p>1 Part number: NVF4-1                  NVF4-2(Plastic Bracket),                  NVF4-2a(With Metal Bracket)                  NVF4-2b(Shrouded With Metal Bracket)</p> <p>2 Contact arrangement: A:1A1; A2:1A2; B:1B; C:1C;                  C2:1C2</p> <p>3 Enclosure: S: Wash tight ; Z: Dust protected</p> <p>4 Contact current: A Form: 20A,40A;                  B Form: 20A,30A;                  C Form or C2 Form: 15A,20A, 30A, 40A;                  A2 Form: 2×20A</p>
<p>5 Terminals: b: PCB type; a1: plug in type 1; a2:plug in type 2</p> <p>6 Coil rated voltage(V): DC:6,9,12,24,48</p> <p>7 Coil power: 1.6:1.6W; 1.9:1.9W;                  2.3:2.3W; 2.6:2.6W</p> <p>8 Coil transient suppression: D: with diode                  R: with resistance                  NIL: standard</p>

Contact Data									
Contact Arrangement	1A(SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))								
Contact Material	AgSnO <sub>2</sub>								
Contact Rating (Resistive)	<table border="1"> <thead> <tr> <th>1A1</th> <th>1B</th> <th>1C or C2</th> <th>1A2</th> </tr> </thead> <tbody> <tr> <td>40A/14VDC 20A/24VDC</td> <td>30A/14VDC 20A/24VDC</td> <td>NO:40A/14VDC NC:30A,40A/14VDC 15A,20A/24VDC</td> <td>2×20A/14VDC</td> </tr> </tbody> </table>	1A1	1B	1C or C2	1A2	40A/14VDC 20A/24VDC	30A/14VDC 20A/24VDC	NO:40A/14VDC NC:30A,40A/14VDC 15A,20A/24VDC	2×20A/14VDC
	1A1	1B	1C or C2	1A2					
40A/14VDC 20A/24VDC	30A/14VDC 20A/24VDC	NO:40A/14VDC NC:30A,40A/14VDC 15A,20A/24VDC	2×20A/14VDC						
Max. Switching Power	630W								
Max. Switching Voltage	75VDC      Max. Switching Current:40A								
Voltage Drop(Initial)	Typ: 50mV (at 10A)      Item 4.12 of IEC 61810-7								
Operation Life	Electrical      1×10 <sup>5</sup> Item 4.30 of IEC 61810-7								
	Mechanical      1×10 <sup>7</sup> Item 4.31 of IEC 61810-7								

**NOTE:** Limiting continuous current at 125°C:NC/NO:10A/15A.

Dash numbers	Coil voltage VDC		Coil resistance Ω ±10%	Pick-up voltage VDC(max) (65%of rated voltage)	Drop-out voltage VDC(min) (10% of rated voltage)	Coil power 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		
012-1900	12	15.6	75.8	7.8	1.2			
024-1900	24	31.2	303.2	15.6	2.4			
006-2300	6	7.8	15.6	3.9	0.6	2.3		
012-2300	12	15.6	62.6	7.8	1.2			
024-2300	24	31.2	250.4	15.6	2.4			
006-2600	6	7.8	13.8	3.9	0.6	2.6		
012-2600	12	15.6	55.4	7.8	1.2			
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.

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## Characteristics

Insulation Resistance <sup>1)</sup>	100MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength <sup>1)</sup> Between Contacts Between Contact and Coil	50Hz 500V 50Hz 750V	Item 4.9 of IEC 61810-7 Item 4.9 of IEC 61810-7
Shock Resistance	147m/s <sup>2</sup> 11ms	Item 4.26 of IEC 61810-7
Vibration Resistance	10Hz~40Hz Double amplitude 1.5mm	Item 4.28 of IEC 61810-7
Terminals Strength	Terminal retention(pull & push): ≥ 100N Terminal resistance to bending(front & side): ≥ 10N	Item 4.24 of IEC 61810-7
Ambient Temperature	-40℃~125℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Mass	31g(NVF4-1);33g(NVF4-2);33g(NVF4-2a);45g(NVF4-2b)	Item 4.7 of IEC 61810-7

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

## Dimensions

