



Opened type  
24×19×20

Dust Covered  
26.8×21.5×22.3

## Features

- Small size, heavy contact load, capable of standing strong current of 45A at 14VDC.
- PC board mounting.
- Suitable for automatic control facilities and automobile application etc.
- Both European 11mm pole distance and American 8mm pole distance available.

## Ordering Information

<u>NF120</u>	<u>100</u>	<u>E</u>	<u>12</u>	<u>S</u>	<u>U</u>	<u>XXXX</u>
1	2	3	4	5	6	7
1. Type:	NF120			6. Pin layout:		Nil = European version;
2. Contact arrangement:	100 = 1A; 001 = 1C;			7. Special:		U = US Version;
3. Contact material:	E = Ag alloy					XXXX = Letters and / or
4. Coil voltage:	12 = 12VDC; 24 = 24VDC;					number for special
5. Protection:	Nil = Dust cover; S = Sealed type;					custom design
	O = Opened type;					

## Contact Data

Contact Arrangement	1A (SPSTNO)	1C (SPDT(B-M))
Contact Material	AgSnO	
Contact Rating (resistive)	1A: 45A/14VDC; 1B: 30A/14VDC; 1C: NO: 40A / 14VDC or 20A / 28VDC ; NC: 30A / 14VDC or 15A / 28VDC	
Max. Switching Power	630W 2400VA	
Max. Switching Voltage	75VDC 380VAC	Max. Switching Current:45A
Contact Resistance or Voltage drop	≤30mΩ Item 4.12 of IEC 61810-7	
Operation life	Electrical	10 <sup>5</sup> Item 4.30 of IEC 61810-7
	Mechanical	10 <sup>7</sup> Item 4.31 of IEC 61810-7

- CAUTION:** 1.For the intermediate current, it only applies to the room temperature.  
2.For the open type relays, the min. switching current and min. switching voltage is 100mA/6VDC.

## Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance Ω ± 10%	Pickup voltage VDC(max) (70%of rated voltage )	Release voltage VDC(min) (10% of rated voltage)	Coil power consumption W	Operate Time ms	Release Time ms
	Rated	Max.						
012-1600	12	15.6	90	8.40	1.2	1.6	≤5	≤3
024-1600	24	31.2	360	16.8	2.4			

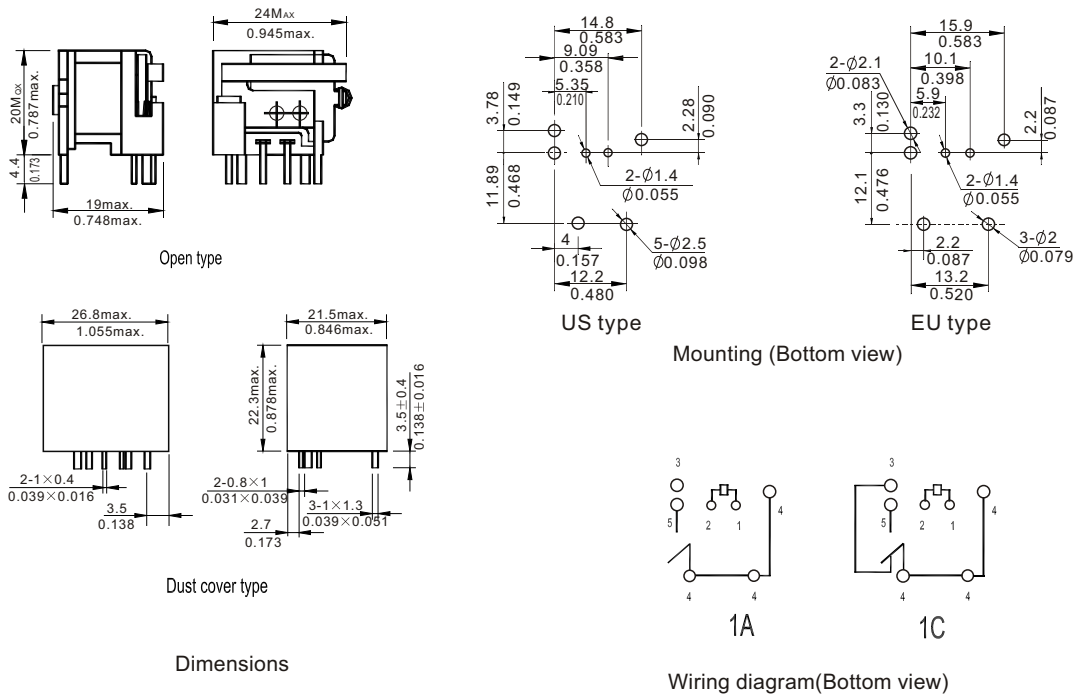
- CAUTION:** 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.  
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

## Operation condition

Insulation Resistance	100MΩ min (at 500VDC)	Item 7 of IEC 60255-5
Dielectric Strength Between contacts Between contact and coil	50Hz 500V 50Hz 750V	Item 6 of IEC 60255-5 Item 6 of IEC 60255-5
Shock resistance	200m/s <sup>2</sup> 11ms	IEC 68-2-27 Test Ea
Vibration resistance	10Hz~40Hz double amplitude 1.27mm	IEC 68-2-6 Test Fc
Terminals strength	10N	IEC 68-2-21 Test Ua1
Solderability	235℃ ± 2℃ 3s ± 0.5s	IEC 68-2-20 Test Ta method 1
Ambient Temperature	-40℃~125℃	
Relative Humidity	85% (at 40℃)	IEC 68-2-3 Test Ca
Mass	19g (Open type) 21g	

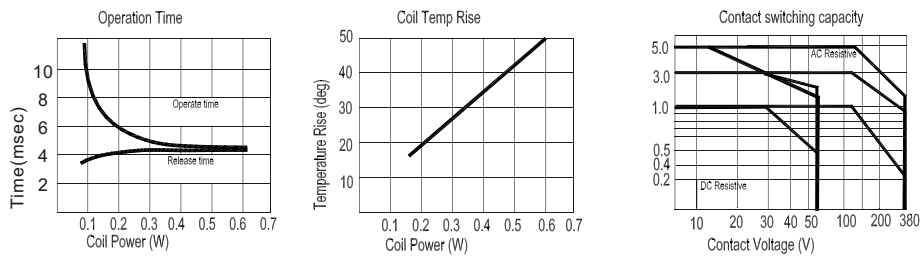
## Dimensions

mm /inch



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

## Reference Data



### Disclaimer

All technical performance data apply to the relay as such, specific conditions of the individual application are not considered. Please always check the suitability of the relay for your intended purpose. We do not assume any responsibility or liability for not complying herewith. We recommend to complete our questionnaire and to request our technical service. Any responsibility for the application of the product remains with the customer only. All specifications are subject to change without notification. All rights of NF Forward GmbH & NF Forward USA Inc. are reserved.