

## Features

- High power PCB relay with 40A rating.
- USA & European footprint are both available.
- Open frame, dust cover, flux-free type, and sealed type are available.
- General purpose applications for lamp control circuits, seat adjustment motors, window defoggers, starter solenoid switches, etc.



## Ordering Information

NF120 100 E 12 S XXXX

1 2 3 4 5 6 7

- |    |       |                              |    |       |   |
|----|-------|------------------------------|----|-------|---|
| 1. | NF120 | -- Relay Series              | 5. | 12    | -- 12VDC  |
|    |       |                              |    | 24    | -- 24VDC  |
| 2. | 100   | -- 1A                        | 6. | Blank | -- Flux tight   |
|    | 001   | -- 1C                        |    | S     | -- Sealed washable                                    |
|    |       |                              |    | O     | -- Open   |
| 3. | E     | -- Contact Material Ag alloy | 7. | XXXX  | -- Letters and/or numbers for special customer design |
| 4. | Blank | -- European Version          |    |       |   |
|    | 2     | -- USA Version               |    |       |   |

## Contact Data

Type of contact		Single Contact
Configuration		1A / 1C
Contact rating	1A-Form	45A, 14VDC
	1C-Form	NO: 40A, 14VDC; NC 30A, 14VDC
		NO: 20A, 28VDC; NC 15A, 28VDC
Max. switching power		630W 2400VA
Max. switching voltage		75VDC (max.45A)
Contact Resistance		≤30 mΩ

## Coil rating (DC @+23°C)

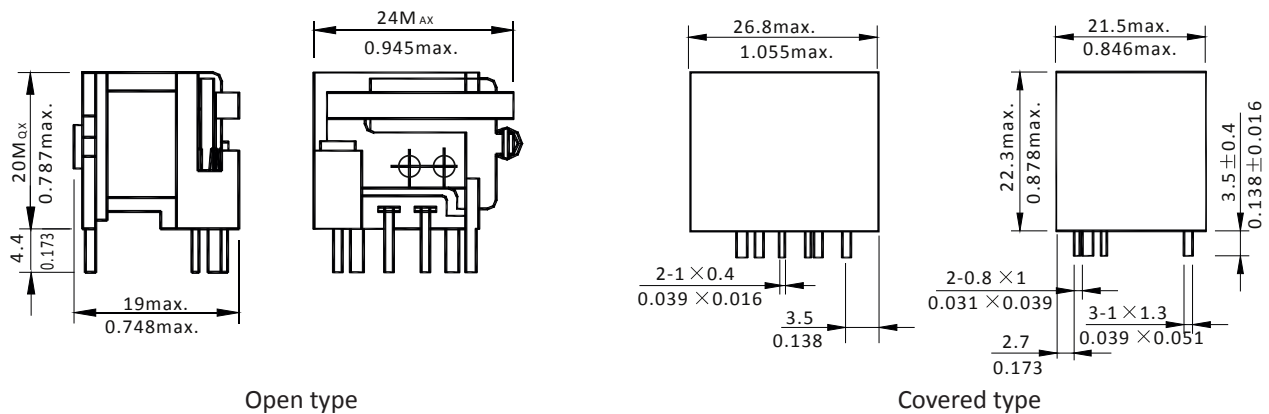
U <sub>N</sub> (VDC)	R (Ω) ± 10%	Pull-in Voltage U <sub>PI</sub> (VDC)	Drop-out voltage U <sub>DO</sub> (VDC)	Coil power P <sub>coil</sub> (W)
Rated				
12	90	8.4	1.2	1.6
24	360	16.8	2.4	

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

## Specification

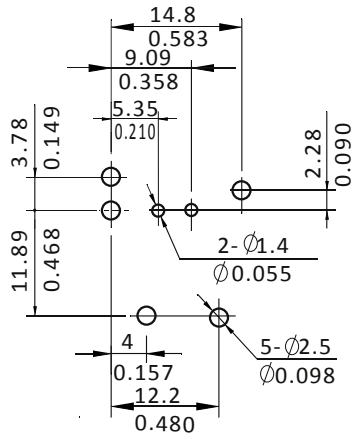
Mechanical life (frequency 18000 oper. / h)		10 <sup>7</sup> Oper.
Electrical life (frequency 360 oper. / h)		10 <sup>5</sup> Oper.
Operating time / Release time		≤5ms / ≤3ms
Insulation Resistance		100MΩ Min (at 500VDC)
Dielectric strength contacts/ coil		750 VAC <sub>rms</sub>
Dielectric strength open contacts		500 VAC <sub>rms</sub>
Ambient temperature (nofreezing)		-40°C...+125°C
Vibration resistance		10 ~ 40Hz; double amplitude 1.27mm
Shock resistance		200m/s <sup>2</sup> 11ms
Dimensions	Covered	26.8 x 21.5 x 22.5
	Open	24 x 19 x 20
Weight	Covered	approx. 21g
	Open	approx. 19g

## Dimension (Bottom view)

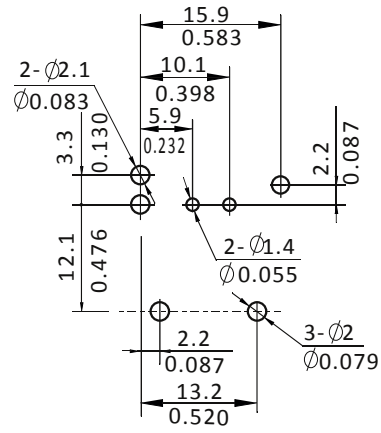


- Notes: 1) Dimensions are in millimeters.  
 2) Inch equivalents are given for general information only.

## Mounting (Bottom view)



USA footprint

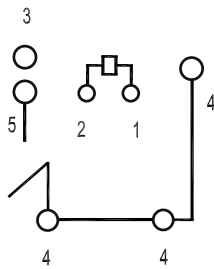


European footprint

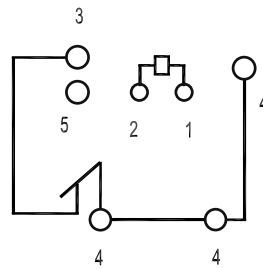
- Notes: 1) Dimensions are in millimeters.  
 2) Inch equivalents are given for general information only.

## Wiring Diagram

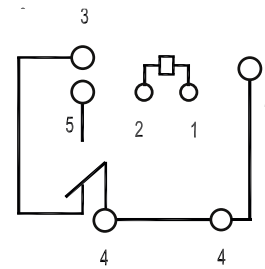
Bottom View



1A



1B



1C

### 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 are reserved.