



20.5×15.4×22.1

# NF116

## Features

- ISO 280 automotive relay with small size
- Small volume and light weight
- Operation temperature can achieve 125°C
- Contact rating: 35A and 40A versions are available

## Ordering Information

<u>NF116</u>	<u>100</u>	<u>E</u>	<u>12</u>	<u>S</u>	<u>R</u>	<u>XXXX</u>
1	2	3	4	5	6	7
1. Type:	NF116				7. Coil suppression:	Nil = Standard; D = Diode;
2. Contact arrangement:	100 = 1A; 001 = 1C;					R = Resistor
3. Contact material:	E = Ag alloy				8. Special:	XXXX = Letters and / or
4. Coil voltage:	12 = 12VDC; 24 = 24VDC;					number for special
5. Protection:	Nil = Dust cover; S = Sealed type;					custom design

## Contact Data

Contact Arrangement	1A(1H) SPSTNO 1C(SPDT(B-M))		
Contact Material	AgSnO		
Contact Rating (resistive)	Coil rated voltage	1A	1C
	12V	35A/14VDC	NO:35A/14VDC NC:20A/14VDC
	24V	15A/28VDC	NO:15A/28VDC NC:8A/28VDC
Max. Switching Power	560W		
Max. Switching Voltage	28VDC		
Max. Inrush Current	NO:90A ; NC:25A		
Max. Switching Current	40A		
Contact Resistance or Voltage drop	50mΩ (6VDC 1A) Item 4.12 of IEC 61810-7		
Operation	Electrical	10 <sup>5</sup> Item 4.30 of IEC 61810-7	
life	Mechanical	10 <sup>7</sup> Item 4.31 of IEC 61810-7	

## Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance ± 10%		With Suppression Resistive	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.	Without Resistor	With Resistor						
012-1500	12	16	96	84	680	7.2	1.2	1.5	10	≤10
024-1800	24	32	320	286	2700	14.4	2.4	1.8	10	≤10

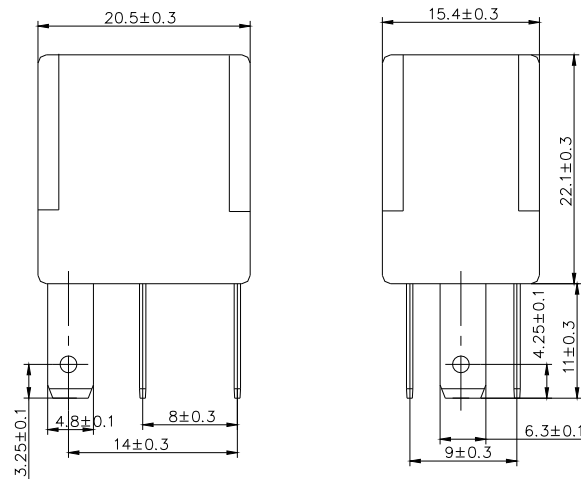
**CAUTION:** 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.  
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

## Operation condition

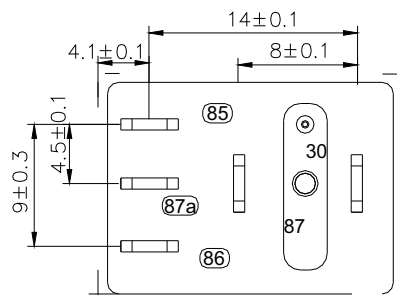
Insulation Resistance	100M min (at 500VDC)	Item 7 of IEC 60255-5
Dielectric Strength		
Between contacts	50Hz 500V	Item 6 of IEC 60255-5
Between contact and coil	50Hz 500V	Item 6 of IEC 60255-5
Shock resistance	Function:100m/s <sup>2</sup> 11ms Destructive:1000m/s <sup>2</sup> 11ms	IEC 68-2-27 Test Ea
Vibration resistance	Function:10Hz~55Hz Double amplitude 1.5mm Destructive:10Hz~55Hz Double amplitude 1.5mm	IEC 68-2-6 Test Fc
Terminals strength	100N	IEC 68-2-21 Test Ua2
Ambient Temperature	-40 ~125 °C	
Relative Humidity	35%~85% (at 40°C)	IEC 68-2-3 Test Ca
Mass	Approx.18g	

## Dimensions

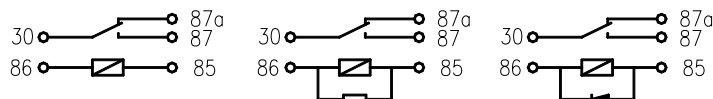
mm



Dimensions



Mounting (Bottom view)



Wiring diagram(Bottom view)

### 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.