

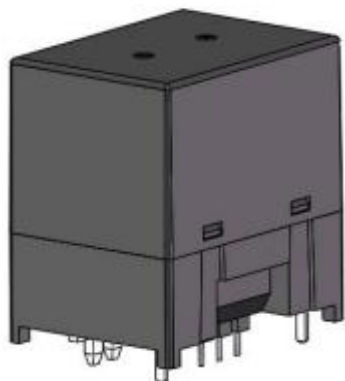


Industrial & Electrical Components

Power Relay

Part No.

NN81A-60



- Environmental protection category: RT II.
- Unique magnetic arc-extinguishing design and 750V breaking capability.
- Unique contact design to support surge and high current resistant capability.
- Withstand voltage 4kV between high and low voltage.
- Load no-polarity; Optional auxiliary contact type.
- RoHS compliant.

MAIN CONTACT DATA

Contact Arrangement	H (normal-open)
Contact Material	Silver Alloy
Contact Resistive	Max.: 5 mΩ (at 20A)
Rating	DC750V 60A
Min. Load Current	6V/1A
Electrical Life (Switching)	60A/750V, 1000 OPS
	50A/600V, 2000 OPS
	60A/450V, 3000 OPS
Electrical Life (ON)	35A/750V, 25000 OPS
Mechanical Life	2×10 <sup>5</sup> (0.5s ON,0.5s OFF)
Ambient temperature	-40°C ~ +85°C
Humidity	5~85% RH

MAIN CONTACT CHARACTERISTICS

Operate Time	30msec. Max.
Release Time	10msec. Max.
Initial breakdown voltage	
Coil & Contact	4000VAC (50/60Hz) for 1 min.
Main & Auxiliary Contacts	4000VAC (50/60Hz) for 1 min.
Insulation Resistance	Coil & Contact: Min.1000MΩ
	Main & Auxiliary Contacts: Min.1000MΩ
Impulse Voltage	Between Coil & Contact: 10kV(1.2x50μs)
Shock:	Endurance 196 m/s <sup>2</sup>
	Damage 490 m/s <sup>2</sup>
Vibration	Sine 10 to 500Hz, 1.5mm D.A. 49m/s <sup>2</sup>
Unit weight	Approx. 112g

**Note:** The datas shown above are initial values at room temperature.

ORDERING INFORMATION

e.g

NN81A - 60 / 750 - XX - H S N XXX

- ①      ②      ③      ④      ⑤      ⑥      ⑦      ⑧

- ① Model No.
- ② Load Current: 60=60A
- ③ Load Voltage: 450=450 Vdc;750=750 Vdc
- ④ Coil Voltage:12=12Vdc, 24=24Vdc;
- ⑤ Main contact form: H (N/O)
- ⑥ Contact Material: S=AgSnO2+In2O3; T=AgNi
- ⑦ Auxiliary contact mode: Nil=No auxiliary contact  
N=With auxiliary contact
- ⑧ Special custom code

**COIL DATA (at 20°C)**

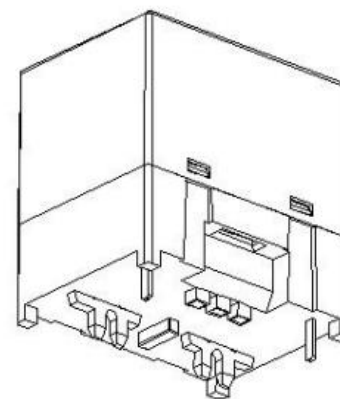
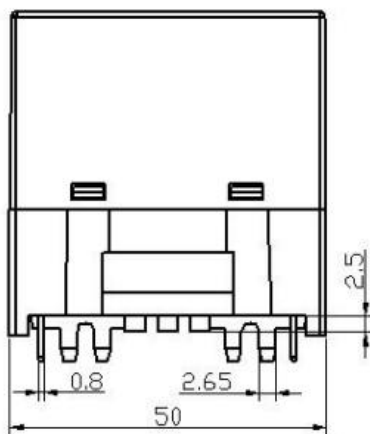
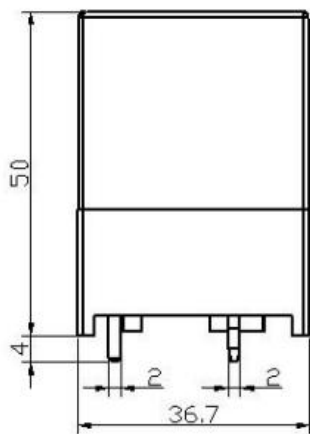
Rated Voltage	Pick-up Voltage VDC (Max)	Operate Voltage VDC	Drop-out Voltage VDC (Min)	Coil Resistance (Ω) (1± 7%)	Initial current * & Rated Current (A)	Initial Power * & Steady Power * (W)
12VDC	9	9~14	1	51	0.235	2.8W
24VDC	18	18~28	2	206	0.116	

**Note:** \* means at rated voltage.

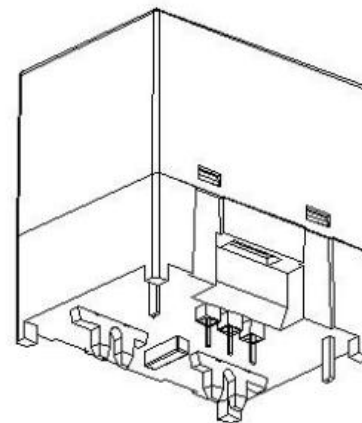
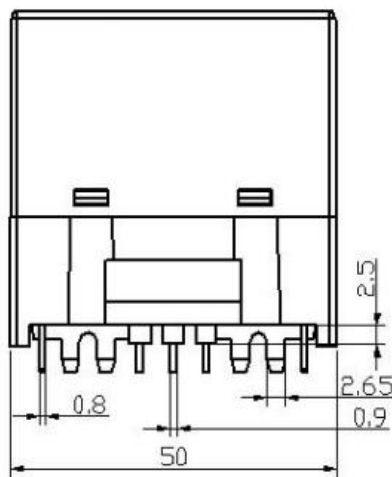
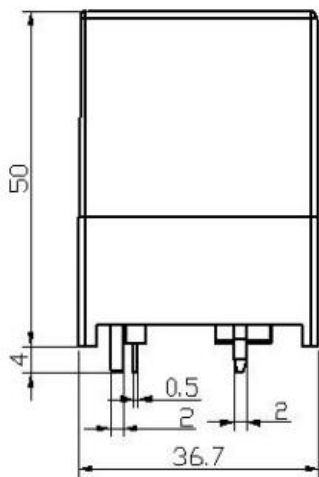
**DIMENSIONS**

Unit: mm

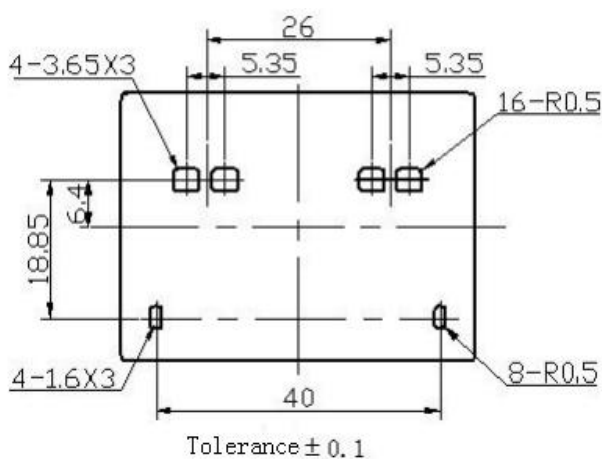
**NN81A-H**



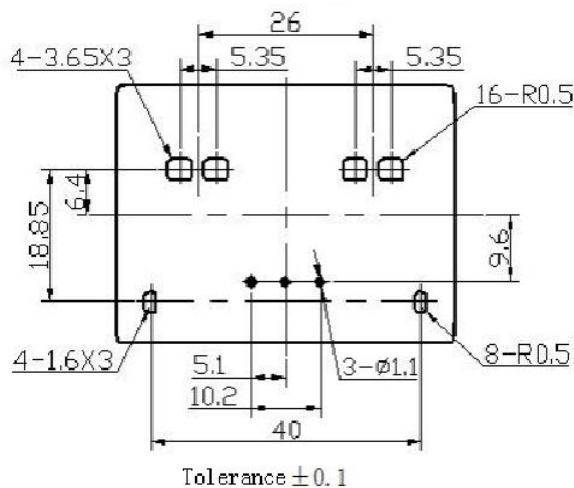
**NN81A-HN**



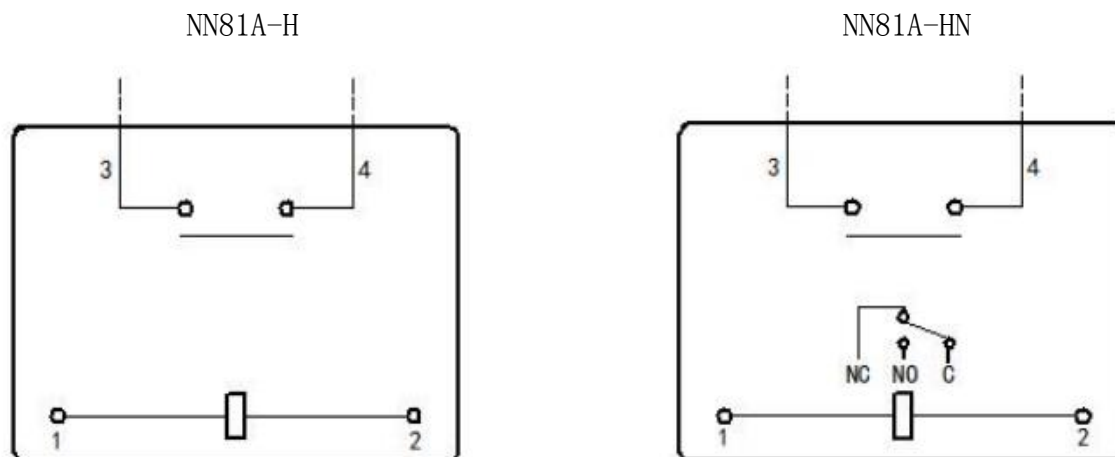
**NN81A-H (Bottom View)**



**NN81A-HN (Bottom View)**



**Terminal-arrangement (Bottom view) :**



Note 1: No polarity on the coil.

Note 2: All unspecified tolerance according to following table.

<b>Outline dimensions hadn't specified tolerance</b>	
Outline dimensions	Tolerance
≤10	±0.3
>10~50	±0.5
> 50	±0.8