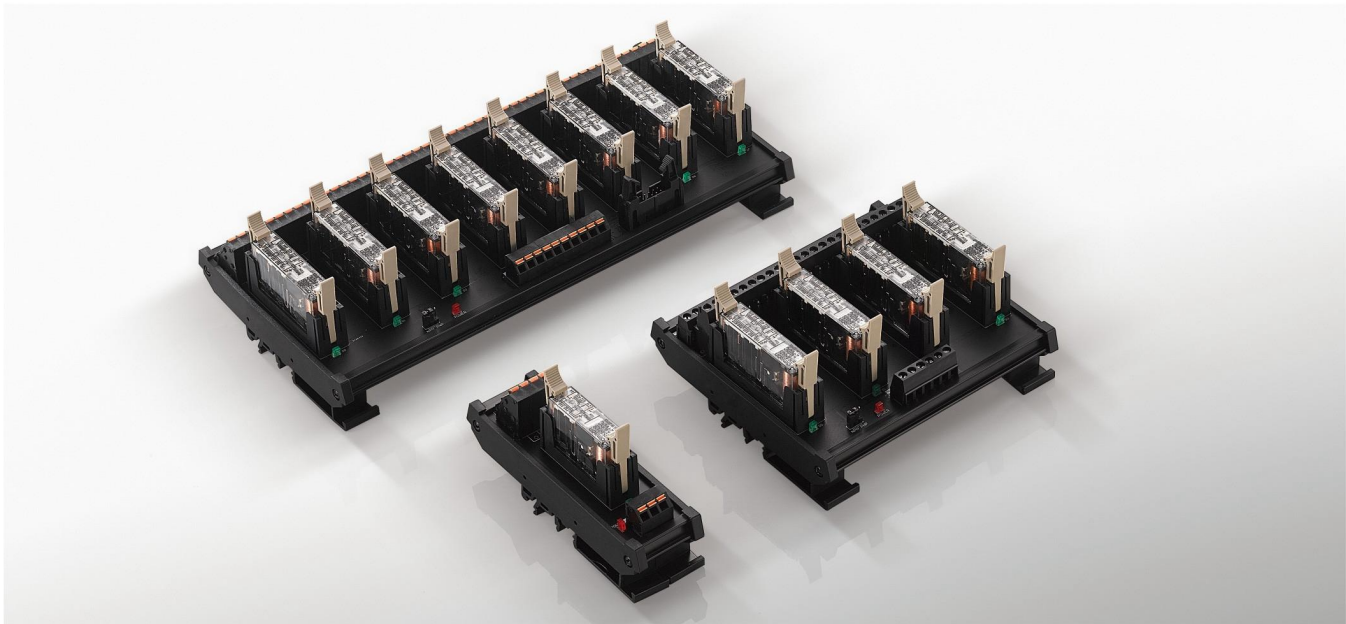


# NHN-RQ

Safety Relay Module  
安全继电器模块



## 产品特点 FEATURES

- 带强制导向接点继电器(获得EN/IEC 61819-3 VDE认证)
- 构成互锁回路,可回避机械的危险状态
- 输入输出采用欧式端子或弹片式面螺丝端子
- NPN/PNP双极性兼容
- 带有指示灯工作状态指示
- Relay with forced guided contact (obtained EN/IEC 61819-3 VDE certification)
- Form an interlocking circuit to avoid the dangerous state of the machine
- Input and output adopt European terminal or shrapnel type face screw terminal
- NPN/PNP bipolar compatible

安全继电器 Safety Relay

NHN-RQ系列安全继电器模块底座  
NHN-RQ Safety Relay Module Holder



### 连接器 CONNECTOR

|                             |                     |
|-----------------------------|---------------------|
| 剥线长度 Strip length           | 6mm                 |
| 扭矩 Torque                   | 0.4Nm/(3.54Lb-in)   |
| 输入端子类型 Input terminal type  | 欧式接线端子、弹片式直插端子      |
| 输出端子类型 Output terminal type | MIL 连接器             |
| 输入端子线径 Input wire diameter  | 0.2-2.5mm /26-14AWG |
| 输出端子线径 Output wire diameter | 0.2-2.5mm /26-14AWG |
| 工作温度 WORKING TEMPERATURE    | -10~55°C            |
| 存储温度 STORAGE TEMPERATURE    | -40~70°C            |

## 规格参数 SPECIFICATIONS

### 输入线圈参数 INPUT COIL PARAMETERS

|                                        |                       |       |       |       |                      |        |
|----------------------------------------|-----------------------|-------|-------|-------|----------------------|--------|
| • 驱动方式 Driving mode                    | NPN/PNP 兼容 Compatible |       |       |       |                      |        |
| • 额定电压 Rated voltage                   | DC12V                 | DC18V | DC21V | DC24V | DC48V                | DC110V |
| • 4极额定电流(mA)<br>4-pole rated current   | 30                    | 20    | 17.1  | 15    | 7.5                  | 3.8    |
| • 4极功耗(mW)<br>4-pole power consumption | 约360                  |       |       |       | 约420                 |        |
| • 6极额定电流(mA)<br>6-pole rated current   | 41.7                  | 27.8  | 23.8  | 20.8  | 10.4                 | 5.3    |
| • 6极功耗(mW)<br>6-pole power consumption | 约500                  |       |       |       | 约580                 |        |
| • 动作电压 Action voltage                  | 相对 额定电压75%上下          |       |       |       | 75% of rated voltage |        |
| • 释放电压 Release voltage                 | 相对 额定电压10%上下          |       |       |       | 10% of rated voltage |        |
| • 动作时间 Action time                     | ≤20ms                 |       |       |       |                      |        |
| • 释放时间 Release time                    | ≤10ms                 |       |       |       |                      |        |

### 输出触点参数 OUTPUT CONTACT PARAMETERS

|                                                   |                                                                |
|---------------------------------------------------|----------------------------------------------------------------|
| 阻性负载 Resistive load                               | AC250V 6A<br>DC30V 6A                                          |
| 感性负载 开关性能<br>Inductive load<br>Switch performance | AC15V AC240V 2A<br>DC13V DC24V 1A<br>DC48V 0.5A<br>DC110V 0.2A |
| 电气寿命 Electrical life                              | 10万次以上(额定负载)                                                   |
| 机械寿命 Mechanical life                              | 1000万次以上                                                       |
| 最大开关频率 Max.frequency                              | 机械36000次/h 额定负载1800次/h                                         |
| 触点材料 Contact material                             | 银合金 Silver alloy                                               |
| 接触电阻 Contact resistance                           | ≤ 100mΩ                                                        |

## NHN-RQ

Safety Relay Module  
安全继电器模块

## 型号解析 MODEL ANALYSIS

| NHN                           | - | R                                       | Q1                                        | 04                                       | A                                            | N                                 | D24                     | /                                | *** |
|-------------------------------|---|-----------------------------------------|-------------------------------------------|------------------------------------------|----------------------------------------------|-----------------------------------|-------------------------|----------------------------------|-----|
| 品牌<br>Brand                   |   |                                         | 设计序列号<br>Design serial number             |                                          | 输入/输出端口类型<br>Input/output port type          |                                   | 工作电压<br>Working voltage |                                  |     |
| NNC 继电器模块<br>NNC Relay module |   |                                         | <b>Q1</b> 3A1B型安全继电器<br>3A1B safety relay |                                          | <b>A</b> 螺钉式端子<br>Screw terminal             |                                   | <b>D12</b> 12VDC        |                                  |     |
|                               |   |                                         | <b>Q2</b> 2A2B型安全继电器<br>2A2B safety relay |                                          | <b>T</b> T型弹片式端子<br>T Type Shrapnel terminal |                                   | <b>D24</b> 24VDC        |                                  |     |
|                               |   |                                         | <b>Q3</b> 3A3B型安全继电器<br>3A3B safety relay |                                          |                                              |                                   | .....                   |                                  |     |
|                               |   |                                         | <b>Q4</b> 4A2B型安全继电器<br>4A2B safety relay |                                          |                                              |                                   |                         |                                  |     |
|                               |   |                                         | <b>Q5</b> 5A1B型安全继电器<br>5A1B safety relay |                                          |                                              |                                   |                         |                                  |     |
|                               |   | 继电器类型<br>Relay type                     |                                           | 继电器控制单元数量<br>Number of relay control Bit |                                              | 输出端保护方式<br>Output protection mode |                         | 配置继电器品牌<br>Configure relay brand |     |
|                               |   | <b>R</b> 电磁继电器<br>Electromagnetic relay |                                           | <b>01</b> 1 位 1 bit                      |                                              | <b>N</b> 无保护<br>Unprotected       |                         | 无 欧姆龙G7SA继电器<br>OMRON G7SA Relay |     |
|                               |   |                                         |                                           | <b>02</b> 2 位 2 Bit                      |                                              |                                   |                         |                                  |     |
|                               |   |                                         |                                           | <b>04</b> 4 位 4 Bit                      |                                              |                                   |                         |                                  |     |
|                               |   |                                         |                                           | <b>08</b> 8 位 8 Bit                      |                                              |                                   |                         |                                  |     |
|                               |   |                                         |                                           | .....                                    |                                              |                                   |                         |                                  |     |

注: (1): 无继电器配置的继电器模块座命名: 增加7.5字段, 在电压规格后增加.Z标定。  
例: NHN-RQ104AND24.Z.

(2): 7字段多个电压规格共用或支持宽电压时取接近最大电压值的常规规格标定。  
例: a. 支持3-32V宽电压时, 标定为: D24  
b. 支持12V/24V共用时, 标定为: D24



## 配线图及外形图 WIRING DIAGRAM AND DIMENSIONS

外形尺寸图 Dimensions

| (mm)           |        |     |
|----------------|--------|-----|
| 型号 Model       | 位数 Bit | L   |
| NHN-RQ101□ND24 | 1      | 35  |
| NHN-RQ201□ND24 | 1      | 35  |
| NHN-RQ102□ND24 | 2      | 72  |
| NHN-RQ202□ND24 | 2      | 72  |
| NHN-RQ104□ND24 | 4      | 95  |
| NHN-RQ204□ND24 | 4      | 95  |
| NHN-RQ108□ND24 | 8      | 175 |
| NHN-RQ208□ND24 | 8      | 175 |
| NHN-RQ301□ND24 | 1      | 35  |
| NHN-RQ401□ND24 | 1      | 35  |
| NHN-RQ501□ND24 | 1      | 35  |
| NHN-RQ302□ND24 | 2      | 72  |
| NHN-RQ402□ND24 | 2      | 72  |
| NHN-RQ502□ND24 | 2      | 72  |
| NHN-RQ304□ND24 | 4      | 132 |
| NHN-RQ404□ND24 | 4      | 132 |
| NHN-RQ504□ND24 | 4      | 132 |
| NHN-RQ308□ND24 | 8      | 252 |
| NHN-RQ408□ND24 | 8      | 252 |
| NHN-RQ508□ND24 | 8      | 252 |

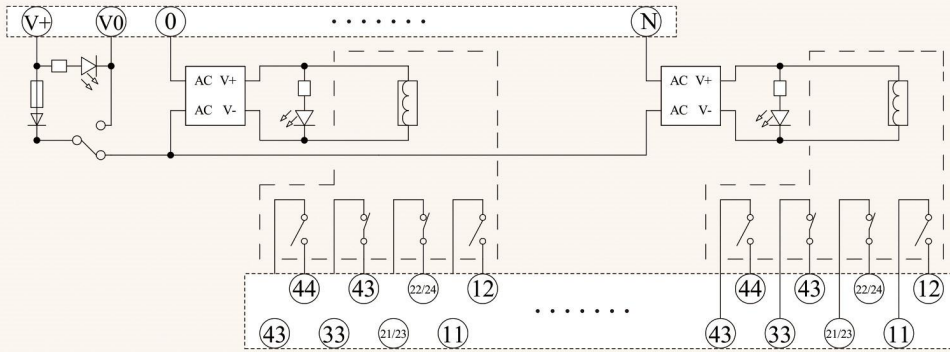
备注: “□”代表接线方式, 详细请查阅NHN-RQ系列产品型号解析。  
Note: “□”: wiring method, please refer to the NHN-RQ series product model analysis for details.

# NHN-RQ

## Safety Relay Module 安全继电器模块

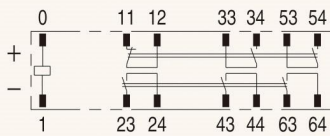
配线图 Wiring Diagram

NHN-RQ1,2 接线图 Wiring Diagram

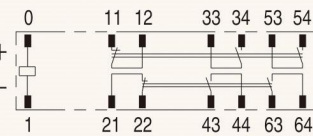


继电器功能对照表 Relay function control table

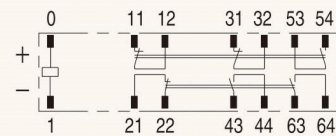
5A1B



4A2B

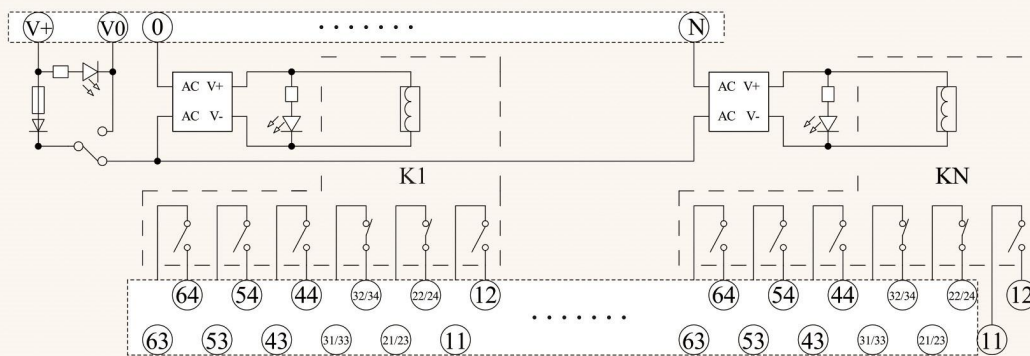


3A3B



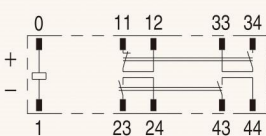
- 注: 1. 端子23-24、33-34、43-44、53-54和63-64为常开。端子11-12、21-22和31-32为常闭。  
2. 继电器内部卡的颜色如下: 5A1B: 蓝, 4A2B: 白, 3A3B: 黄。

NHN-RQ3,4,5 接线图 Wiring Diagram

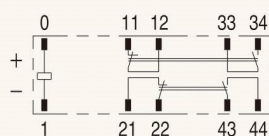


继电器功能对照表 Relay function control table

3A1B



2A2B



- 注: 1. 端子23-24、33-34和43-44为常开。端子11-12和21-22为常闭。  
2. 继电器内部卡的颜色如下: 3A1B: 蓝, G7SA-2A2B: 白