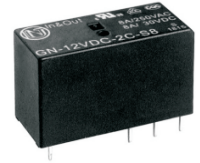


# GN

## 小型中功率继电器

## Miniature PCB Power Relay

- 16A 触点切换能力 16A switching capability
- 低高度，仅为15.7mm Low height: 15.7 mm
- 线圈与触点间介质耐压5KV 5kV dielectric strength (between coil and contacts)
- 外形尺寸 Dimensions :29.0 × 12.7 × 15.7mm

**RoHS**

### 型号命名标准 Product Code Structure

|                             |  |    |        |     |    |    |    |       |
|-----------------------------|--|----|--------|-----|----|----|----|-------|
| 基本型号 Type                   | GN   | -S | -12VDC | -1A | 25 | -S | 16 | (XXX) |
| 端子间距 Terminal spacing       | Blank: 5.0mm S: 3.5mm  |    |        |     |    |    |    |       |
| 线圈额定电压 Coil voltage         | 5, 6, 9, 12, 24, 48, 60VDC   |    |        |     |    |    |    |       |
| 触点结构 Contact form           | 1A: 1 Form A    1B: 1 Form B    1C: 1 Form C<br>2A: 2 Form A    2B: 2 Form B    2C: 2 Form C   |    |        |     |    |    |    |       |
| 线圈功耗 Coil Power             | Nil: 400mW    25: 250mW  |    |        |     |    |    |    |       |
| 封装形式 Category of protection | V – 非密封型 Flux proof , S – 密封型 Wash tight   |    |        |     |    |    |    |       |
| 触点电流 Contact Current        | 8: 8A (8A only for 2 pole 5mm)<br>12: 12A (only for 1 pole 3.5mm or 1 pole 5mm, single pinning)<br>16: 16A (only for 1 pole 5mm, double pinning) |    |        |     |    |    |    |       |
| 特殊标记 Suffix                 | Blank– 标准型 Standard , (XXX) – 客户特殊需求 For customer special requirement,   |    |        |     |    |    |    |       |

### 线圈参数 Coil Data(DC)

#### 标准型 Standard Type

| 额定电压<br>Rated voltage<br>(V) | 额定电流<br>Rated current<br>(mA) | 线圈电阻<br>Coil resistance<br>(Ω) | 吸合电压<br>Operate<br>voltage | 释放电压<br>Release<br>voltage | 最大允许电压<br>Max release<br>voltage | 额定功耗<br>Rated coil power |
|------------------------------|-------------------------------|--------------------------------|----------------------------|----------------------------|----------------------------------|--------------------------|
|                              |                               |                                | 额定电压的 % of rated voltage   |                            |                                  |                          |
| 5                            | 80.6                          | 62                             | 75% Max                    | 5% Min                     | 130%                             | Approx.<br>400mW         |
| 6                            | 66.6                          | 90                             |                            |                            |                                  |                          |
| 9                            | 44.5                          | 202                            |                            |                            |                                  |                          |
| 12                           | 33.3                          | 360                            |                            |                            |                                  |                          |
| 18                           | 22.2                          | 810                            |                            |                            |                                  |                          |
| 24                           | 16.6                          | 1440                           |                            |                            |                                  |                          |
| 48                           | 8.3                           | 5760                           |                            |                            |                                  |                          |
| 60                           | 6.6                           | 9000                           |                            |                            |                                  |                          |

#### 高灵敏型 High Sensitive Type

| 额定电压<br>Rated<br>voltage<br>(V) | 额定电流<br>Rated current<br>(mA) | 线圈电阻<br>Coil resistance<br>(Ω) | 吸合电压<br>Operate<br>voltage | 释放电压<br>Release<br>voltage | 最大允许电压<br>Max release<br>voltage | 额定功耗<br>Rated coil power |
|---------------------------------|-------------------------------|--------------------------------|----------------------------|----------------------------|----------------------------------|--------------------------|
|                                 |                               |                                | 额定电压的 % of rated voltage   |                            |                                  |                          |
| 5                               | 50                            | 100                            | 75% Max                    | 5% Min                     | 130%                             | Approx.<br>250mW         |
| 6                               | 41.7                          | 144                            |                            |                            |                                  |                          |
| 9                               | 27.8                          | 324                            |                            |                            |                                  |                          |
| 12                              | 20.8                          | 576                            |                            |                            |                                  |                          |
| 18                              | 13.9                          | 1296                           |                            |                            |                                  |                          |
| 24                              | 10.4                          | 2304                           |                            |                            |                                  |                          |
| 48                              | 5.2                           | 9216                           |                            |                            |                                  |                          |
| 60                              | 4.7                           | 12857                          |                            |                            |                                  |                          |

注：额定电流和线圈电阻是在线圈温度23℃，公差为±10%  
Note. The rated current and coil resistance are measured at a coil temperature of 23° C with a tolerance of ± 10%

■ 触点参数 Contact Data

| 额定电压<br>Rated voltage<br>(V) | 额定电流<br>Rated current<br>(mA) | 线圈电阻<br>Coil resistance<br>(Ω) | 吸合电压<br>Operate voltage  | 释放电压<br>Release voltage | 最大允许电压<br>Max release voltage | 额定功耗<br>Rated coil power |
|------------------------------|-------------------------------|--------------------------------|--------------------------|-------------------------|-------------------------------|--------------------------|
|                              |                               |                                | 额定电压的 % of rated voltage |                         |                               |                          |
| 5                            | 50                            | 100                            | 75% Max                  | 5% Min                  | 130%                          | Approx.<br>250mW         |
| 6                            | 41.7                          | 144                            |                          |                         |                               |                          |
| 9                            | 27.8                          | 324                            |                          |                         |                               |                          |
| 12                           | 20.8                          | 576                            |                          |                         |                               |                          |
| 18                           | 13.9                          | 1296                           |                          |                         |                               |                          |
| 24                           | 10.4                          | 2304                           |                          |                         |                               |                          |
| 48                           | 5.2                           | 9216                           |                          |                         |                               |                          |
| 60                           | 4.7                           | 12857                          |                          |                         |                               |                          |

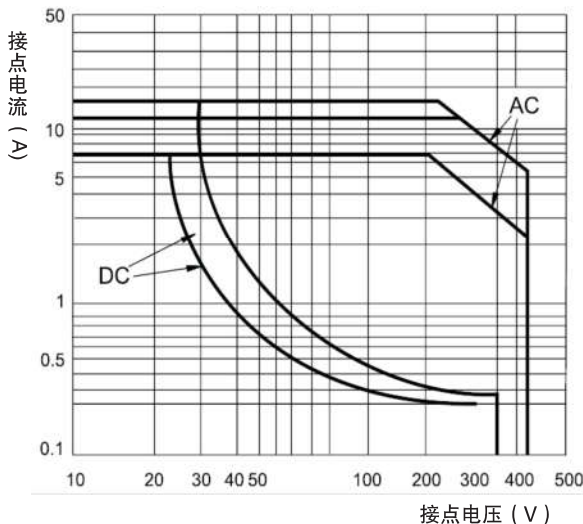
■ 性能参数 Characteristics

|                                    |                                 |                             |
|------------------------------------|---------------------------------|-----------------------------|
| 吸合时间 operate time                  | ≤15ms;                          |                             |
| 释放时间 release time                  | ≤8ms                            |                             |
| 绝缘电阻 insulation resistance         | 1000MΩ以上 (500VDC)               |                             |
| 介质耐压 Dielectric strength           | 线圈触点间 Between coil and contacts | AC5,000V 50/60Hz 1min       |
|                                    | 开路触点间 Between open contacts     | AC1,000V 50/60Hz 1min       |
| 振动 vibration resistance            | 稳定性 Functional                  | 10~55~10Hz (双振幅 1.5mm)      |
| 冲击 shock resistance                | 稳定性 Functional                  | 100m/S <sup>2</sup> (10G)   |
|                                    | 强度 Destructive                  | 1000m/S <sup>2</sup> (100G) |
| 温度范围 Ambient operating temperature |                                 | -20°C~+60 °C ;              |
| 湿度范围 Ambient operating humidity    |                                 | 20-85%RH                    |
| 重量                                 |                                 | Approx. 13.5g               |

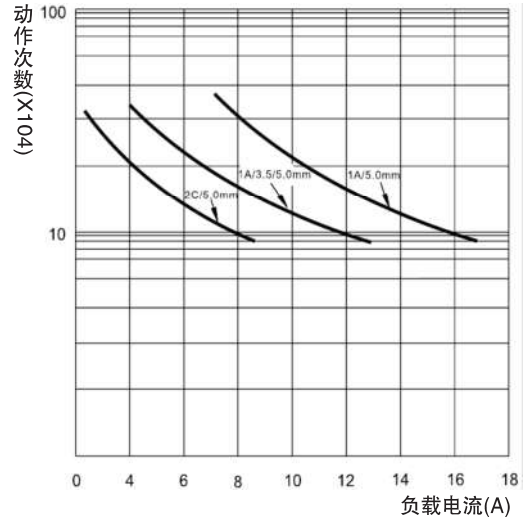
注：上述值均为初始值

■ 性能曲线 Engineering Data

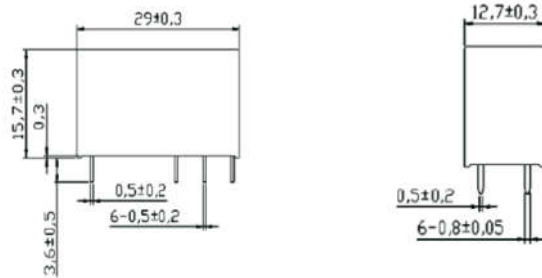
开关容量最大值



寿命曲线

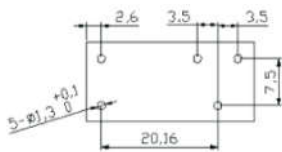


外形图 Outline dimensions

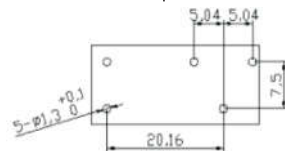


安装孔尺寸PCB LAYOUT (底视Bottom)

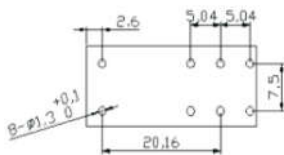
GNS 3.5mm 1pole 12A



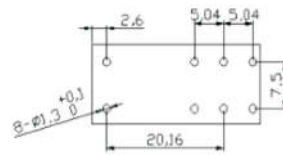
GN 5mm 1pole 12A



GN 5mm 1pole 16A

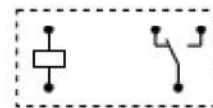
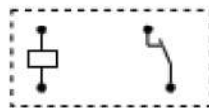
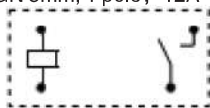


GN 5mm 2pole 8A



接线图 (底视Bottom View)

GNS 3.5/ GN 5mm, 1 pole, 12A

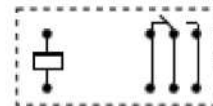
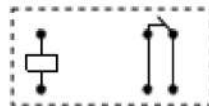


1A

1B

1C

GN 5mm, 1 pole, 16A

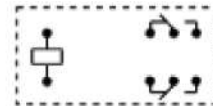
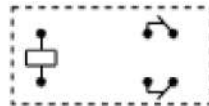


1A

1B

1C

GN 5mm, 2 pole, 8A



2A

2B

2C

使用注意事项 Precautions

- 一般的注意事项请参考“印刷基板用继电器共通注意事项”。
- Please refer to “PCB Relays Common Precautions” for correct use.

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