



MG RELAY CO.,LTD.
www.mgrelay.com

MR11A

小型中间继电器
Miniature intermediate relay

MG 茂冠科技
MAOCROWN TECHNOLOGY



30 YEARS

特性 Features :

多种负载规格 : 3A / 5A / 10A Multiple load specifications 3A / 5A / 10A
 多样接点型式: DPDT/3PDT/4PDT
 具有多种引出脚方式 (With various terminal types)
 完整的附加功能(指示旗/LED指示灯/手动测试旋钮) 可依需求搭配组合
 Complete additional function indicator flag / LED indicator / Manual Test Knob
 can be customized combination
 镀金触点型 Gold plated contact type
 透明防尘罩、多种安装方式 Transparent dust cover and various installation method
 备有各种插座供选用 (Various sockets available)

性能参数 Coil parameter

| | | |
|-------------------------------------|---|--------------|
| 触点型式 Contact type | 两组转换、三组转换、四组转换 (2C/3C/4C) | |
| 接触电阻 Contact Resistance | ≤100 mΩ | |
| 触点材料 Contact Material | Ag gold plate 银合金、AgNi 银镍 | |
| 阻性负载 Resistive load | 3A@28VDC/240VAC/277VAC / 3A @28VDC/120VAC/277VAC 5A@28VDC/240VAC / 5A@28VDC/277VAC 8A@28VDC,10A@120VAC / 8A@28VDC/277VAC,10A@120VAC | |
| 马达负载 Motor load | 1/3Hp@120VAC, 1/2Hp@240VAC | |
| 最大切换电压 Max. Switching Voltage | 125VDC, 300VAC | |
| 最大切换电流 Max. Switching Current | 5A (10A) | |
| 最大切换功率 Max. Switching Power | 150W, 1385VA | |
| 绝缘电阻 Insulation resistance | 500MΩ @500VDC | |
| 介质耐压 Dielectric strength | 同极触点间 Between open contact | 1000VAC,1Min |
| | 异极触点间 Between different pole | 1500VAC,1Min |
| | 线圈触点间 Between contact and coil | 1500VAC,1Min |
| 动作时间 Operate time | ≤20ms | |
| 释放时间 Release time | ≤15ms | |
| 冲击稳定性 Stability of shock resistance | 98m/s ² | |
| 冲击强度 Shock strength | 980m/s ² | |
| 环境温度 Ambient temperature | -25°C ~ +50°C (AC/DC) (无结冰、无结露 No ICE, no dew) | |
| 环境湿度 Ambient Humidity | 5%RH ~ 85%RH | |
| 振动 Vibration | 10Hz ~ 55Hz, Double amplitude 1.0mm | |
| 机械寿命 Mechanical life | 1000,000 ops | |
| 电气寿命 Electrical life | 10,000 ops | |
| 额定线圈功率 Rated coil power | 交流 (AC) : 1.2VA/直流 (DC) : 0.9W, | |

| | |
|---------------------------------------|--|
| 重量 Weight | ≤37g |
| 体积Volume | 27.4mm×21mm×35.7mm |
| 配套插座或连接器 Matching socket or connector | 2C: PYF-08A, PYF-08AE, BYF-08DN, 3C: PYF-11A, PYF-11AE 4C: PYF-14A, PYF-14AE, BYF-14CN, BYF-14DN |
| 产品应用领域Product application area | 轨道交通设备、机床、工业控制设备、电梯电控设备、安防控制领域、电源控制等 Rail Transit Equipment、Machine tool、Industrial Control Equipment、Elevator control equipment、Field of security control、Power Control |
| 产品应用场合Applications | 控制盘、电源、成型机、焊接设备、自动贩卖机、通信设备、防灾设备、测量仪器、娱乐机器Control panel、Power supply、Forming machine、Welding equipment、Vending machine、Communication equipment、Disaster Prevention equipment、Measuring Instrument、Entertainment Machine |
| 同行参考Peer Reference | 欧姆龙Omron : MY系列 (MY series) 施耐德Schneider : RXM系列(RXM series) 宏发HONGFA : HF18系列 (HF18 series) 和泉 IDEC : RY系列 (RY series) |

线圈规格表 Coil Versions (环境温度+ 23℃ The ambient temperature is 23℃)

| 额定电压 (V) Rated oltage | | 工作电压 (V) Operate voltage | 释放电压 (V) Release voltage | 最大电压(V) MAX.voltage | 线圈电阻(Ω) Coil sistance |
|--------------------------|---------------|-----------------------------|-----------------------------|------------------------|--------------------------|
| DC | 6VDC | ≤75% | ≥10% | | 40±10% |
| | 12VDC | | | | 160±10% |
| | 24VDC | | | | 650±10% |
| | 48VDC | | | | 2600±10% |
| | 110VDC | | | | 11000±10% |
| AC | 6VAC | ≤80% | ≥30% | 110% | 9.5±10% |
| | 12VAC | | | | 46±10% |
| | 24VAC | | | | 180±10% |
| | 48VAC | | | | 770±10% |
| | 110VAC | | | | 3830±10% |
| | 120VAC | | | | 4430±10% |
| | 220VAC/230VAC | | | | 15000±10% |
| | 240VAC | | | | 15700±10% |

备注：最大电压是指继电器在短时间内能够承受的最大电压值。

Note: The maximum voltage is the maximum that the relay can withstand in a short period of time.

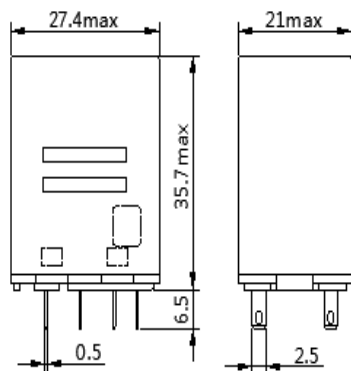
订货标记示例 Order mark example

| | | | | | | | |
|---|--------------|------------|----------|-----------|-----------|-------------|---------------|
| 编号说明 | MR11A | -2C | 5 | -S | -C | M4LW | -24VDC |
| 系列Series MR11A | | | | | | | |
| 触点形式Contact form 2C:DPDT 3C:DPDT 4C:DPDT | | | | | | | |
| 触点负载Contact rating 空白Blank: 3A 5:5A 10:10A | | | | | | | |
| 引出端形式Terminal style 空白Blank : S:标准型插座插入式 Standard socket plug P:印制板式 Printed board type | | | | | | | |
| 外壳样式Cover style C:标准型普通外壳Standard case | | | | | | | |
| 选配Options W:无指示标志 No sign M: 手动按钮 Manual Push Button, DC 蓝色 Blue, AC 红色 Red 4:有自锁功能的旋转按钮 Turn Button with self-lock function L: 单向红色 Single-Polar Red LED(for AC), 双向绿色 Bi-Polar Green LED (for DC) | | | | | | | |
| 线圈电压Coil voltage A: AC交流 DC: DC直流 | | | | | | | |

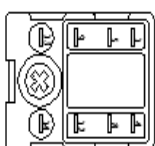
外形尺寸图 Dimension drawing

标准型插座插入式: S (Standard plug in type: S)

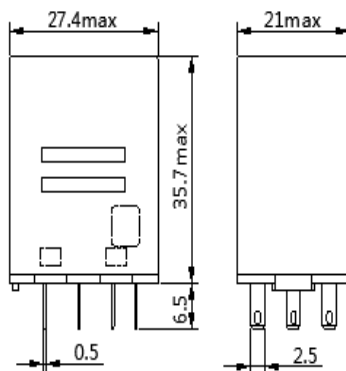
MR11A-2C-S



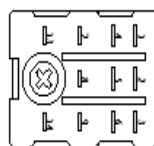
底视图
Bottom view



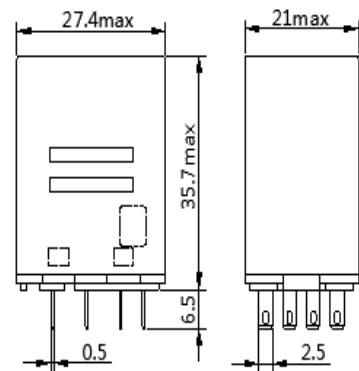
MR11A-3C-S



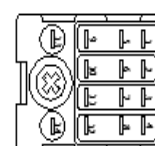
底视图
Bottom view



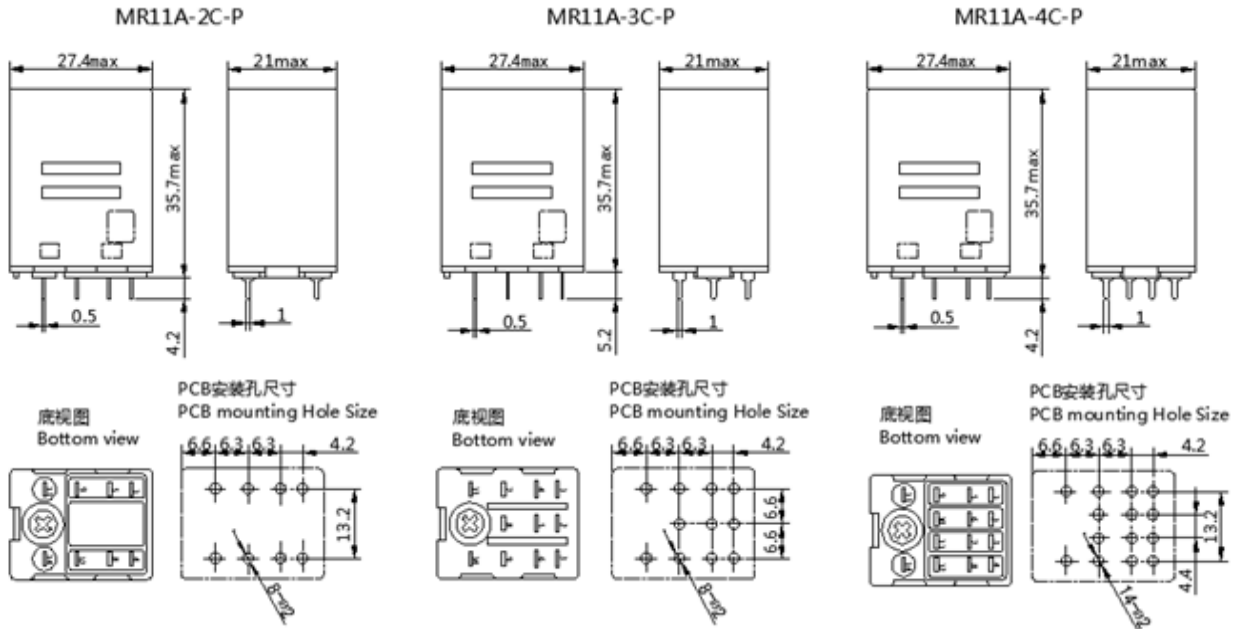
MR11A-4C-S



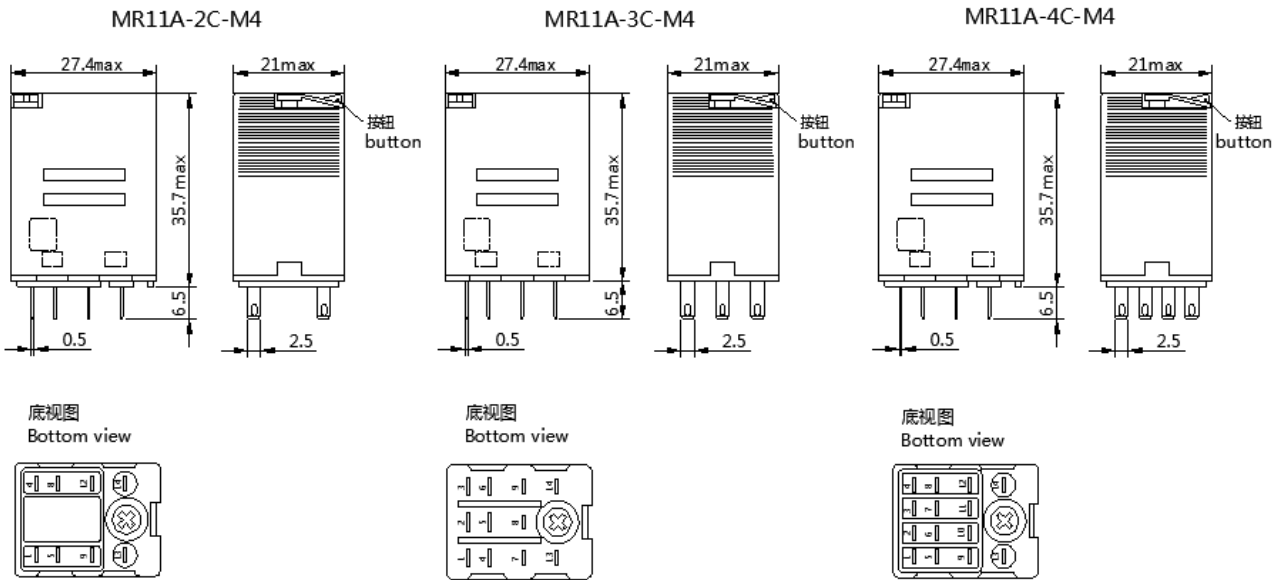
底视图
Bottom view



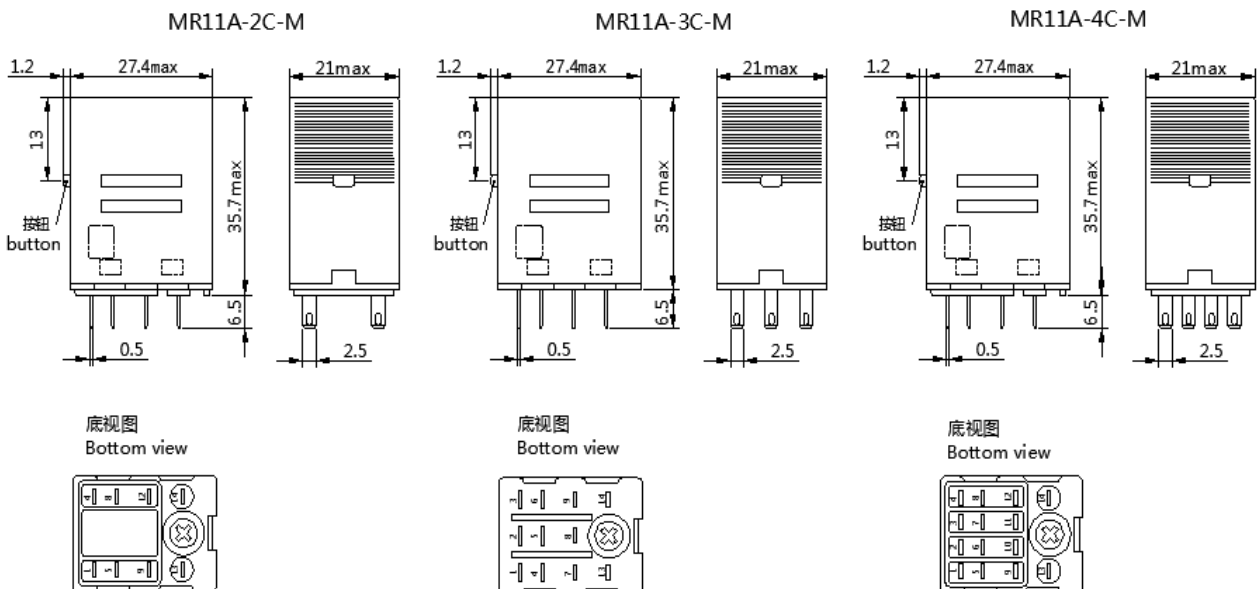
引出端形式: 印制板 P (Terminal form : P(PCB))



有自锁功能的旋转按钮:M4 (Lock down rotary button:M)



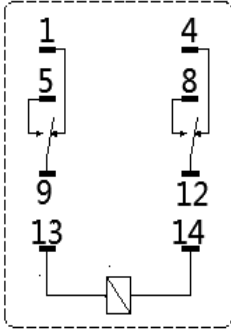
手动测试按钮:M (manual test button:M)



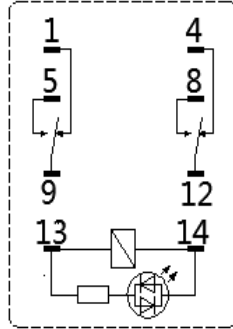
内部接线图 Wiring diagrams

MR11A-2C

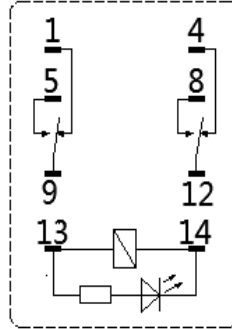
直流、交流线圈,无LED
DC, AC coil, Without LED
MR11A-2C



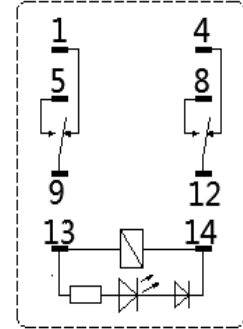
直流线圈,双向LED
DC coil, Bi-Polar LED
MR11A-2C-L-□□VDC



交流线圈,220~240VAC除外
单向LED
AC coil, Except for 220~
240VAC, Single-Polar LED
MR11A-2C-L-□□VAC

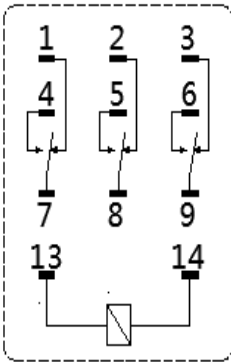


220VAC~240VAC线圈
单向LED+二极管
220VAC~240VAC coil
Single-polar LED+diode
MR11A-2C-L-220VAC~240VAC

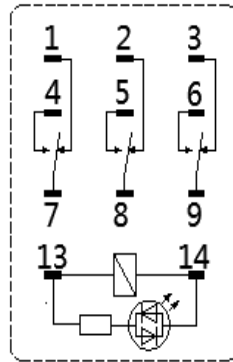


MR11A-3C

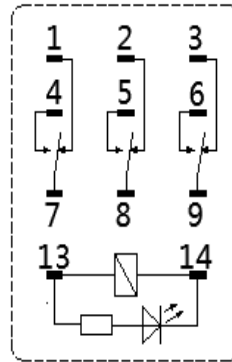
直流、交流线圈,无LED
DC, AC coil, Without LED
MR11A-3C



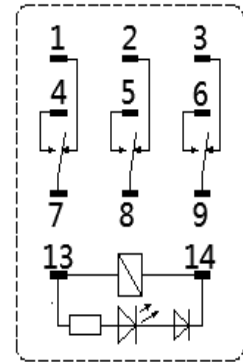
直流线圈,双向LED
DC coil, Bi-Polar LED
MR11A-3C-L-□□VDC



交流线圈,220~240VAC除外
单向LED
AC coil, Except for 220~
240VAC, Single-Polar LED
MR11A-3C-L-□□VAC

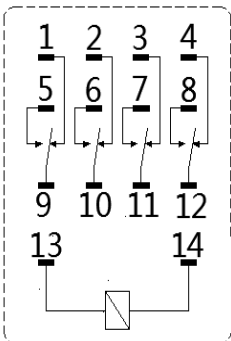


220VAC~240VAC线圈
单向LED+二极管
220VAC~240VAC coil
Single-polar LED+diode
MR11A-3C-L-220VAC~240VAC

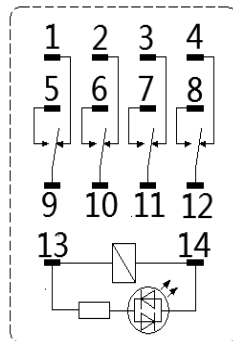


MR11A-4C

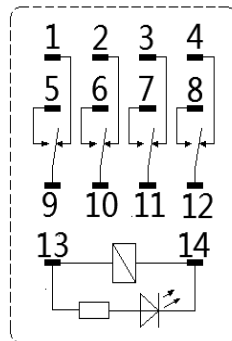
直流、交流线圈,无LED
DC, AC coil, Without LED
MR11A-4C



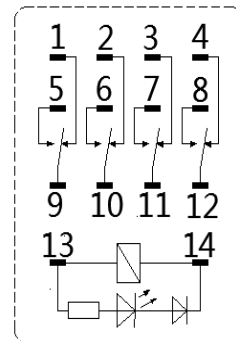
直流线圈,双向LED
DC coil, Bi-Polar LED
MR11A-4C-L-□□VDC



交流线圈,220~240VAC除外
单向LED
AC coil, Except for 220~
240VAC, Single-Polar LED
MR11A-4C-L-□□VAC



220VAC~240VAC线圈
单向LED+二极管
220VAC~240VAC coil
Single-polar LED+diode
MR11A-4C-L-220VAC~240VAC



注:

1, 对于DC规格, 请在确认线圈级性后正确接线。


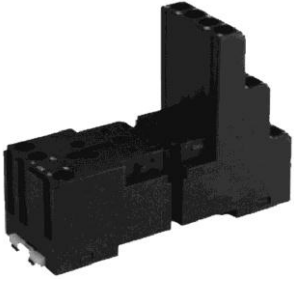

For DC specifications, please connect correctly after confirming coil-level performance.

2, 动作指示灯显示线圈通电情况, 并非根据触点动作进行显示

the action indicator shows the current status of the coil, not according to the action of the contact

继电器配套插座:Relay socket (另售Resell)

| 插座型號 Socket type | 連接繼電器型號 Type of connecting relay | 型狀 SHAPE | 安裝方式 Installation mode | 材質 Material Quality |
|---------------------|-------------------------------------|---|---------------------------|------------------------|
| PYF-08A | MR11A-2C5 |  | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |
| PYF-08B | MR11A-2C10 | | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PA |
| PYF-08AE | MR11A-2C5 |  | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |
| PYF-08BE | MR11A-2C10 | | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PA |
| BYF-08DN | MR11A-2C10 |  | 1. 兩側螺絲孔安裝; 2. 導軌安裝 | PA |
| PYF-11A | MR11A-3C5 |  | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |
| PYF-11B | MR11A-3C10 | | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |
| PYF-11AE | MR11A-3C10 |  | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |
| PYF-11AF | MR11A-3C10 | | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PA |
| PYF-14A | MR11A-4C5 |  | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |
| PYF-14B | MR11A-4C10 | | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |

| | | | | |
|----------|------------|---|------------------------|----|
| PYF-14AE | MR11A-4C5 |  | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PC |
| PYF-14AF | MR11A-4C10 | | 1. 对角螺絲孔安裝; 2. 導軌安裝 | PA |
| BYF-14CN | MR11A-4C10 |  | 1. 兩側螺絲孔安裝; 2. 導軌安裝 | PA |
| BYF-14DN | MR11A-4C10 |  | 1. 兩側螺絲孔安裝; 2. 導軌安裝 | PA |

插座性能 Socket performance

| 插座型號 Socket type | 負載電流Load current | 負載電壓 Load voltage | 介質耐壓Dielectric strength | | 外連接導線External connecting conductor | | 螺釘扭矩Screw Torque | 防護等級 Protection level |
|---------------------|------------------|----------------------|------------------------------------|----------------------|------------------------------------|-----------------|------------------|--------------------------|
| | | | 線圈及觸點間 Between Coil and contact | 觸點間 Contact Point | AWG | mm ² | | |
| | | | V/S | V/S | | | | |
| PYF-08A | 5A | 277VAC | 2000 | 2000 | 20-16 | 0.5-1.5 | 0.7Nm | / |
| PYF-08B | 8A | 277VAC | | | | | 0.7Nm | / |
| PYF-08AE | 5A | 277VAC | | | | | 0.7Nm | IP20防觸摸 |
| PYF-08BE | 8A | 277VAC | | | | | 0.7Nm | IP20防觸摸 |
| BYF-08DN | 8A | 277VAC | | | | | 0.8Nm | IP20防觸摸 |
| PYF-11A | 10A | 120VAC | | | | | 0.7Nm | / |
| PYF-11B | 8A | 277VAC | | | | | 0.8Nm | / |
| PYF-11AE | 10A | 120VAC | | | | | 0.7Nm | IP20防觸摸 |
| PYF-11AF | 8A | 277VAC | | | | | 0.8Nm | IP20防觸摸 |
| PYF-14A | 5A | 277VAC | | | | | 2000 | 2000 |
| PYF-14B | 8A | 277VAC | 0.7Nm | / | | | | |
| PYF-14AE | 5A | 277VAC | 0.7Nm | IP20防觸摸 | | | | |
| PYF-14AF | 8A | 277VAC | 0.8Nm | IP20防觸摸 | | | | |
| BYF-14CN | 8A | 277VAC | 4000 | 2500 | 20-14 | 0.5-2.5 | 0.8Nm | IP20防觸摸 |
| BYF-14DN | 8A | 277VAC | 4000 | 2500 | 20-14 | 0.5-2.5 | 0.8Nm | IP20防觸摸 |

*当4极都处于通电状态时, 使用时要使通电电流值之和为20A或更小

When all 4 electrodes are energized, the sum of the energized current should be 20A or less

注意事项Points to note

关于使用： About using

对于动作指示灯内置型，请在确认线圈极性后正确接线（DC操作）

For Action Indicator built-in type, please connect correctly after confirming coil polarity (DC operation)

关于安装： About installation

无安装方向限制，请尽量避免接点移动方向易受振动、冲击的安装方式

No installation direction limit, please try to avoid contact moving direction susceptible to vibration, impact of the installation

关于继电器的更换： ON REPLACEMENT OF RELAYS:

因维护等原因更换继电器时，为防止继电器的误动作及触电事故，请务必切断负载侧和继电器线圈的电源。

When changing the relay for maintenance and other reasons, please cut off the power supply of the load side and the relay coil in order to prevent misoperation and electric shock of the relay.

关于自锁旋转按钮： About the self-locking rotation button

操作自锁旋转按钮时，请切断电源，请务必在使用结束后返回原来的状态。

When operating the self-lock Button, please cut off the power supply, be sure to return to the original state after use.

请勿将自锁旋转按钮及手动测式按钮当作开关使用

Do not use self-lock button and manual test button as switch

自锁旋转按钮操作的耐久性为500次以上

Self-locking rotation button operation of the durability of more than 500 times