



MG RELAY CO.,LTD.  
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# MR11

小型中间继电器  
Miniature intermediate relay

MG 茂冠科技  
MAOCROWN TECHNOLOGY



30 YEARS

## 特性 Features :

- 5A切换容量
- 多样接点型式: 2C/4C
- 具有多种引出脚方式 ( With various terminal types )
- 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、四组转换 (2C/4C)	
接触电阻 Contact Resistance	≤100 mΩ	
触点材料 Contact Material	AgNi 银镍	
阻性负载 Resistive load	5A@30VDC/120VAC/240VAC	
马达负载 Motor load	1/10hp @ 120VAC	
最大切换电压 Max. Switching Voltage	125VDC, 300VAC	
最大切换电流 Max. Switching Current	5A	
最大切换功率 Max. Switching Power	150W,1200VA	
绝缘电阻 Insulation resistance	≤100MΩ@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 <sup>2</sup>	
冲击强度 Shock strength	980m/s <sup>2</sup>	
环境温度 Ambient temperature	\$-25^{\circ}\text{C} \sim +50^{\circ}\text{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	≤32g
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)

### 订货标记示例 Order mark example

<b>编号说明</b>	<b>MR11</b>	<b>-2C</b>	<b>()</b>	<b>-S</b>	<b>-C</b>	<b>ML</b>	<b>-24VDC</b>
系列 Series MR11							
触点形式 Contact form 2C: DPDT 4C: DPDT							
触点负载 Contact rating 空白 Blank: 5A							
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 C3: 顶端附耳外壳 Ear-tip housing							
选配 Options M: 手动按钮 Manual Push Button, DC 蓝色 Blue, AC 红色 Red 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							

## 订货示例

类型	接点型式	插入式/焊接式端子		
		标准型	带LED	带LED+按钮
S型端子 (用于插座)	2组转换	MR11-2C-S-C-	MR11-2C-S-CL-	MR11-2C-S-CML-
	4组转换	MR11-4C-S-C-	MR11-4C-S-CL-	MR11-4C-S-CML-
P型端子 (焊接式)	2组转换	MR11-2C-P-C-	MR11-2C-P-CL-	MR11-2C-P-CML-
	4组转换	MR11-4C-P-C-	MR11-4C-P-CL-	MR11-4C-P-CML-

备注：外壳选用C可由C2、C3替换，您可依需求订购并选择正确的代码。例如MR11-2C-S-C(普通外壳)可替换MR11-2C-S-C3(顶部附耳型外壳)

C: 标准型普通外壳Standard case

C3: 顶端附耳外壳Ear-tip housing

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

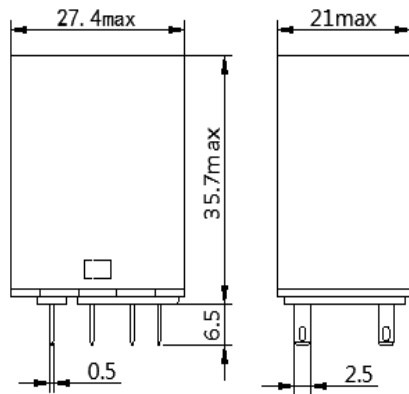
额定电压 (V) Rated oltage		工作电压 (V) Operate voltage	释放电压 (V) Release voltage	最大电压(V) MAX.voltage	线圈电阻(Ω) Coil sistance
DC	6VDC	≤75%	≥10%	110%	40±10%
	12VDC				160±10%
	24VDC				650±10%
	48VDC				2600±10%
	110VDC				11000±10%
AC	6VAC	≤80%	≥30%		9.5±10%
	12VAC				46±10%
	24VAC				180±10%
	48VAC				770±10%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

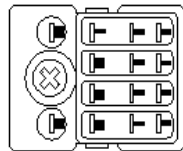
Note: The maximum voltage is the maximum that the relay can withstand in a short period of time.

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

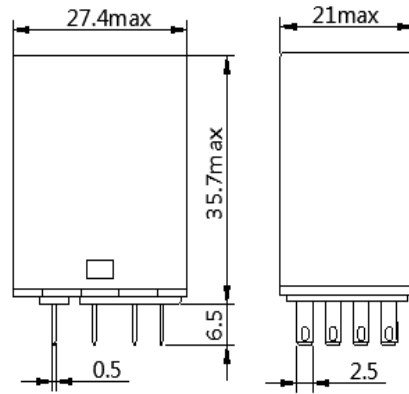
MR11-2C



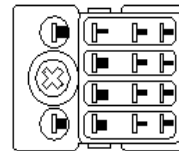
底视图  
Bottom view



MR11-4C

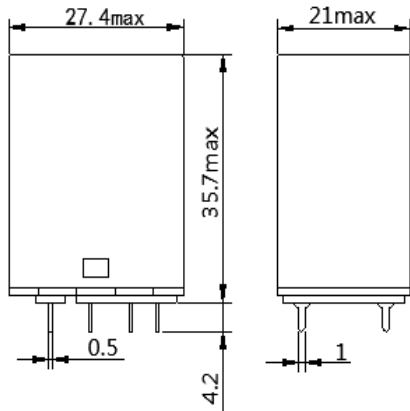


底视图  
Bottom view

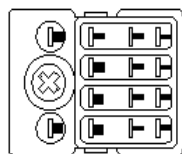


引出端形式: 印制板式 P (Terminal form : P(PCB))

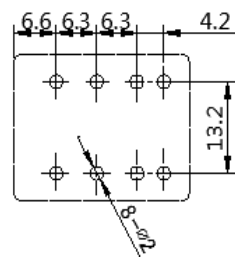
MR11-2C-P



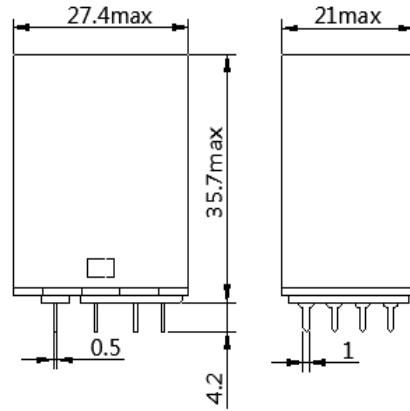
底视图  
Bottom view



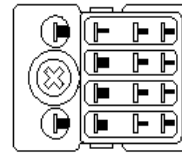
PCB安装孔尺寸  
PCB mounting Hole Size



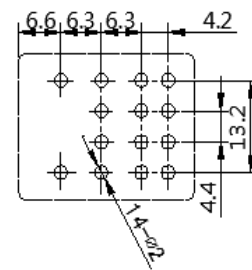
MR11-4C-P



底视图  
Bottom view

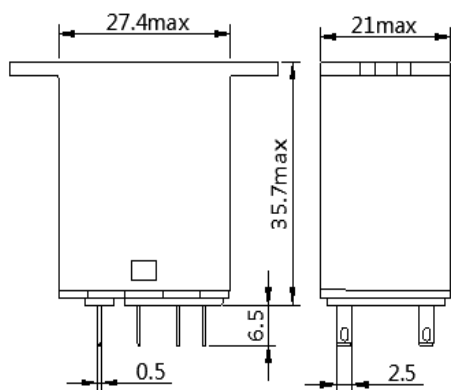


PCB安装孔尺寸  
PCB mounting Hole Size

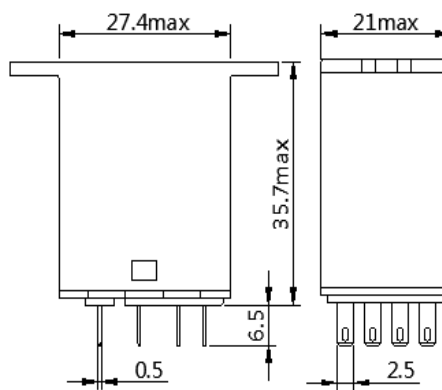


### 顶端附耳外壳 : C3 ( Top flange cover : C3 )

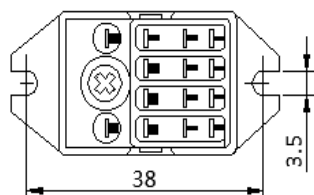
MR11-2C-C3



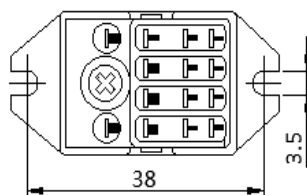
MR11-4C-C3



底视图  
Bottom view

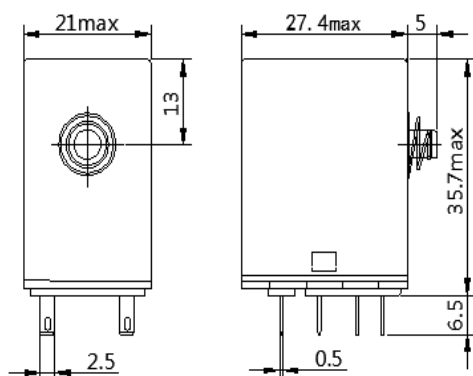


底视图  
Bottom view

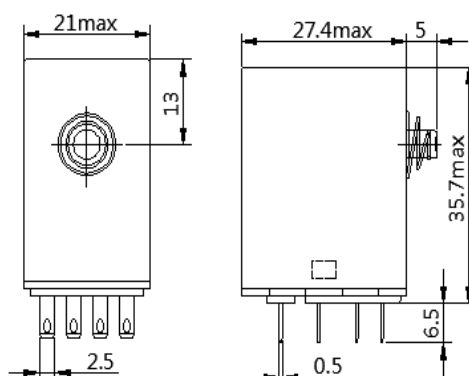


### 手动测试按钮:M ( Manual test button:M)

MR11-2C-M



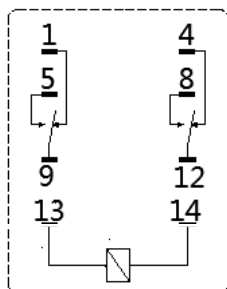
MR11-4C-M



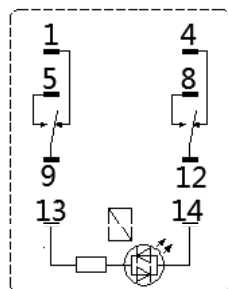
### 内部接线图 Wiring diagrams

MR11A-2C

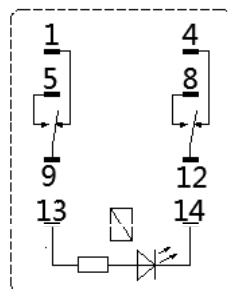
直流、交流线圈,无LED  
DC, AC coil, Without LED  
MR11A-2C



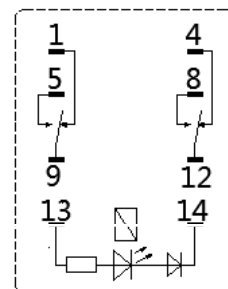
直流线圈,双向LED  
DC coil, Bi-Polar LED  
MR11A-2C-L-□□VDC



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

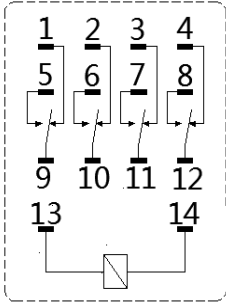


220VAC~240VAC线圈  
单向LED+二极管  
220VAC~240VAC coil  
Single-polar LED+diode  
MR11A-2C-L-220VAC~240VAC

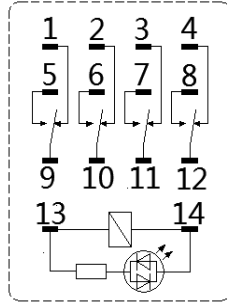


## MR11A-4C

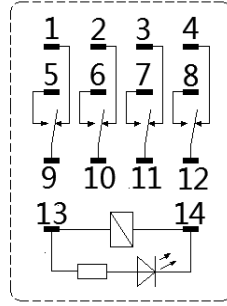
直流、交流线圈,无LED  
DC, AC coil, Without LED  
MR11A-4C



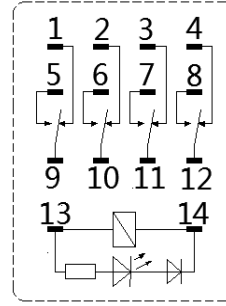
直流线圈,双向LED  
DC coil, Bi-Polar LED  
MR11A-4C-L-□□VDC



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)

插座型号 Socket type	连接继电器型号 Type of connecting relay	形状 SHAPE	安装方式 Installation mode	材质 Material Quality
PYF-08A	MR11A-2C5		1. 对角螺丝孔安装; 2. 导轨安装	PC
PYF-08B	MR11A-2C10		1. 对角螺丝孔安装; 2. 导轨安装	PA
PYF-14A	MR11A-4C5		1. 对角螺丝孔安装; 2. 导轨安装	PC
PYF-14B	MR11A-4C10		1. 对角螺丝孔安装; 2. 导轨安装	PC
PYF-14AE	MR11A-4C5		1. 对角螺丝孔安装; 2. 导轨安装	PC
PYF-14AF	MR11A-4C10		1. 对角螺丝孔安装; 2. 导轨安装	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 <sup>2</sup>		
			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-14A	5A	277VAC	2000	2000	20-16	0.5-1.5	0.7Nm	/
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