

小型功率继电器

Miniature High Power Relay

SMUB-4P

特点 Features

- 具有高容量 High capacity
- 灵敏度强, 内部防尘 Strong sensitivity, dust-proof
- 耐久性好, 寿命长等优点 Good durability, long durability, etc.

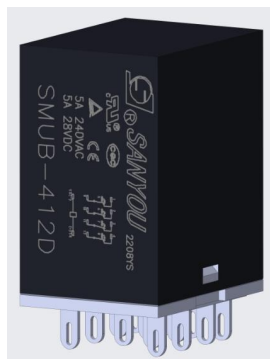
安规认证 Safety Approval

UL、C-UL 认证号 UL, C-UL File No.: 待 In process

TUV 认证号 TUV File No.: 待 In process

CQC 认证号 CQC File No.: 待 In process

CE 认证号 CE File No.: 待 In process



触点负载 Contact Capacity

型号 Type	SMUB-4P
额定负载 (阻性) Nominal switching capacity (res. load)	5A 240VAC
最大切换电流 Max.switching current	5A
最大切换电压 Max.switching voltage	240VAC/28VDC
最大切换功率 Max.switching power	1200VA

性能参数 Characteristics

触点材料 Contact material	银合金 Silver alloy	
接触电阻 Initial contact resistance	100mΩ Max. (at 1A 24VDC)	
吸合时间 Operate time	25msec. Max. (不加二极管 no diode)	
释放时间 Release time	25msec. Max. (不加二极管 no diode)	
绝缘电阻 Initial insulation resistance	1,00MΩ Min.(at DC500V)	
介质耐压 Dielectric strength	同极触点间 Between open contacts:	AC1,000V, 50/60Hz 1min.
	异极触点间 Between different pole contacts:	AC1,500V, 50/60Hz 1min.
浪涌电压 Initial dielectric strength	触点与线圈间 Between coil and contact: AC1,500V, 50/60Hz 1min.	
抗振动 Vibration resistance	10~55Hz, 双振幅 1.5 mm	
	10~55Hz, at double amplitude of 1.5mm	
抗冲击 Shock resistance	耐久 Destructive	100G Min.
	误动作 Functional	10G Min.
寿命 Endurance(Operations)	机械寿命 (7200 次/H) Mechanical endurance(7,200ops/h)	10,000,000 次 10,000,000 times
	电气寿命(360 次/H, 通断比 1s: 9s) Electrical endurance(360ops/h,on:off 1S:9S)	100,000 次 100,000 times
环境温度 Ambient temperature	-40°C ~ +70°C (不冷凝 no condensation)	
环境湿度 Humidity	35% ~ 80%RH	
重量 Weight	约 35g Approx.35g	

以上仅列出该产品认证部分典型负载, 而每个负载详细测试条件不同, 因此电寿命耐久性不一样。如需了解详细信息, 请与我司技术部门联络。

Only typical certificated ratings of the product are listed. Each test load and test conditions are different, so the electrical life durability is different. For more details, please contact us for technical support.

线圈参数 Coil Data (at 20°C)

额定电压 Nominal voltage (VDC)	额定电流 Nominal operating current ±10% (mA)	线圈电阻 Coil resistance ±10% (Ω)	最大外加电压 Max. allowable voltage (VDC)	吸合电压 Pick-up voltage (Max.)	释放电压 Drop-out voltage (Min.)	额定功率 Nominal operating power
6	150	40	额定电压的 110% 110% of nominal voltage	额定电压的 75% 75% of nominal voltage	额定电压的 10% 10% of nominal voltage	0.9W Approx. 0.9W
9	100	90				
12	75	160				
24	37.5	640				
36	25	1440				
48	18.75	2560				
110	8	13750				
125	7.2	17361				
220	4	55000				

额定电压 Nominal voltage (VAC)	额定电流 Nominal operating current ±10% (mA)	线圈电阻 coil resistance ±10% (Ω)	最大外加电压 Max. allowable voltage (VAC)	吸合电压 Pick-up voltage (Max.)	释放电压 Drop-out voltage (Min.)	额定功率 Nominal operating power
6	200	10.5	额定电压的 110% 110% of nominal voltage	额定电压的 80% 80% of nominal voltage	额定电压的 30% 30% of nominal voltage	1.2VA Approx. 1.2VA
9	133.3	23.6				
12	100	42				
24	50	168				
36	33.3	378				
48	25	672				
110	10.9	3529.2				
125	9.6	4557.3				
220	5.4	14116.7				
230	5.2	15429.2				
240	5	16800				
380	3.15	42116.7				

(1) 请勿在产品上连续施加最大电压 > 10min, 以免线圈过度发热。

(1) The data shown above are initial values. Do not energize the maximum allowable voltage of the coil for more than 10 minutes to avoid overheating of the coil.

安规认证负载（注：更多详细的认证负载，参考安规证书）

Safety Approval Ratings (Note: Please refer to the certificates for more detailed information of the ratings)

认证类型 Approval	UL/CUL	TUV	CQC	CE
认证号码 File No.	待	待	待	待
认证负载 Approved Ratings	待	待	待	待

(1) 上述未注明温度的负载，均指环境温度为室温。

All values unspecified are at room temperature.

(2) 以上仅列出了该产品认证的部分负载，每个负载的详细测试条件不同，因此电寿命次数不一样。如需了解详细情况，请联系三友。

Only some typical ratings are listed above. Each rating's test condition is different, so the electrical endurance will be different. If more details are required, please contact us.

订货标记 Ordering Information

SMUB	-4	12	D	M	-F	P	L	-XX	
特殊参数: Special code:									空-标准型，字母或数字-特殊要求 Nil-Standard type, Letter or number-Special requirement
配件类型: Accessories type:									L-带灯, D-带二极管, LD-带灯+二极管 空-无配件 L-With indicator,D-With diode LD-With indicator and diode, Nil-Without accessory
端子类型: Terminal type:									P-PCB, 空-标准型 Nil-Standard type
外壳类型:									F-法兰式, V-盖板式, Z-旋转式, 空-标准型 F-Flange Type, V-Cover plate, Z-Rotation type, Nil-Standard type
触点形式: Contact Form :									空-Form C, M-Form A, B-Form B
线圈类型: Shell type:									D-直流线圈(DC coil), A-交流线圈(AC coil)
线圈规格: Coil Voltage :									6, 9, 12, 24, 36, 48, 110, 125, 220(VDC) 6, 9, 12, 24, 36, 48, 110, 125, 220, 230, 240, 380(VAC)
触点组数: Number of Poles:									4-4 组 4-4 Pole
基本型号: Type Designation:									SMUB

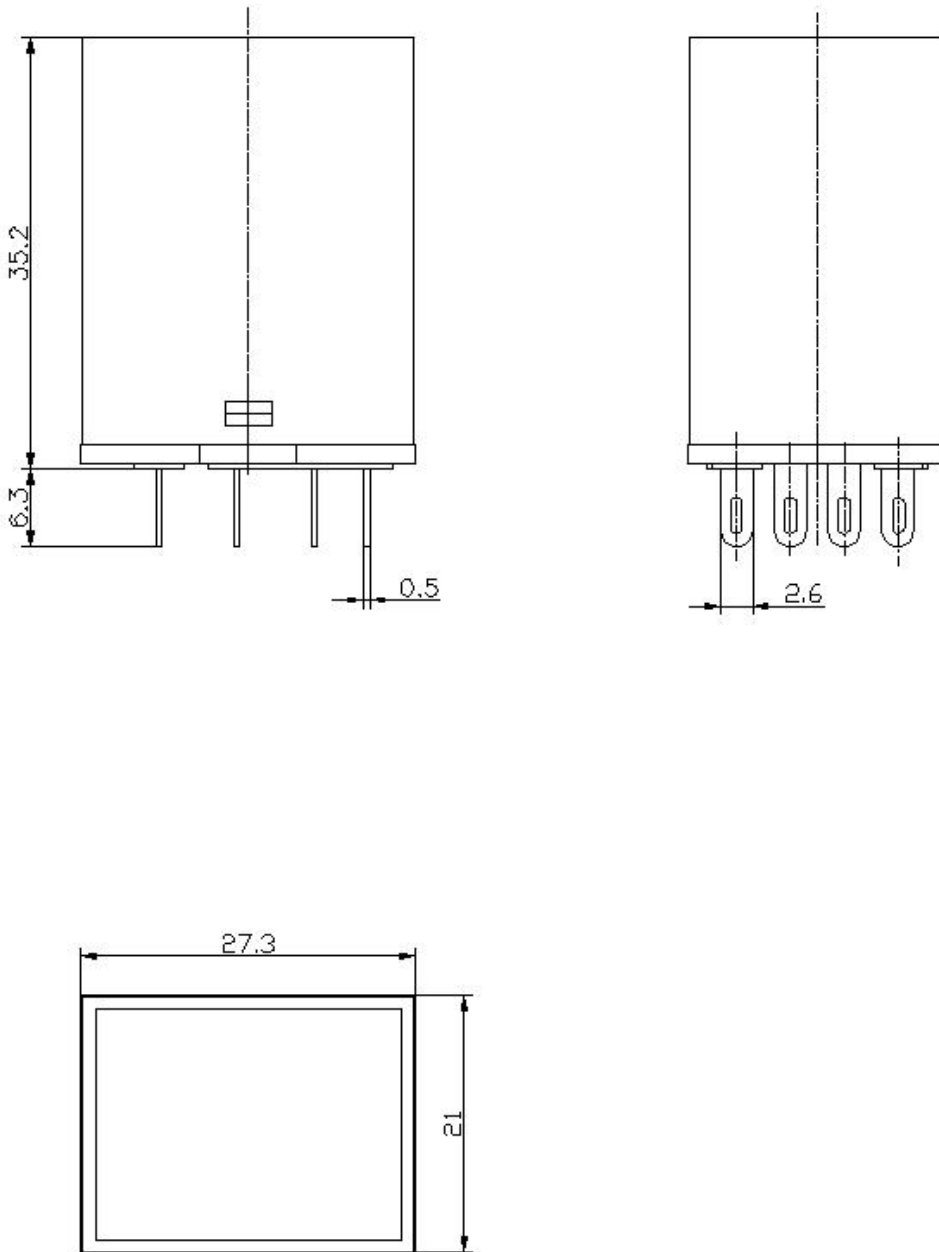
外形尺寸图、接线图、安装孔位图 (单位:mm)

Outline dimensions, wiring diagram, PCB layout (unit: mm)

一、外形尺寸图 Outline dimensions

普通型插座式:

General socket type



未标注尺寸公差 : Unless otherwise specified:

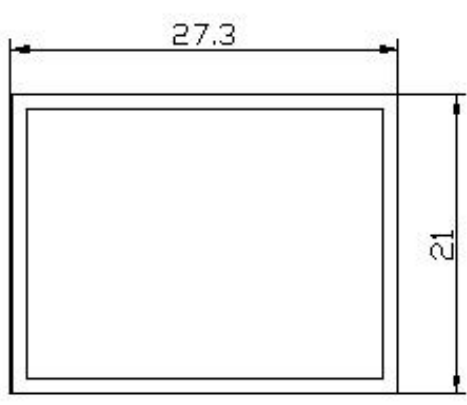
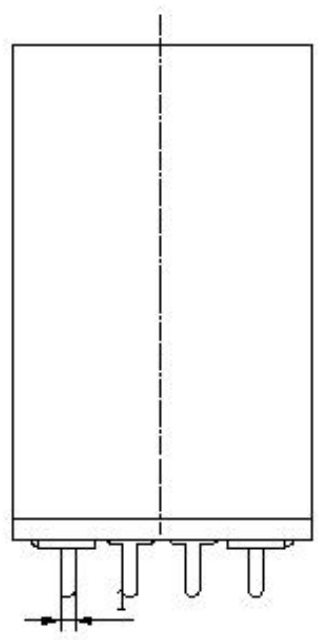
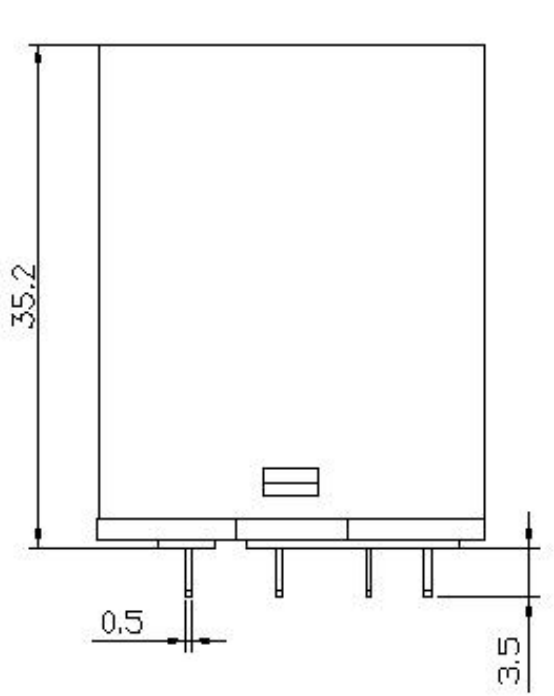
< 1mm: $\pm 0.2\text{mm}$; 1-5mm: $\pm 0.3\text{mm}$;

> 5mm: $\pm 0.4\text{mm}$;

注: 引出脚尺寸为预焊前尺寸。

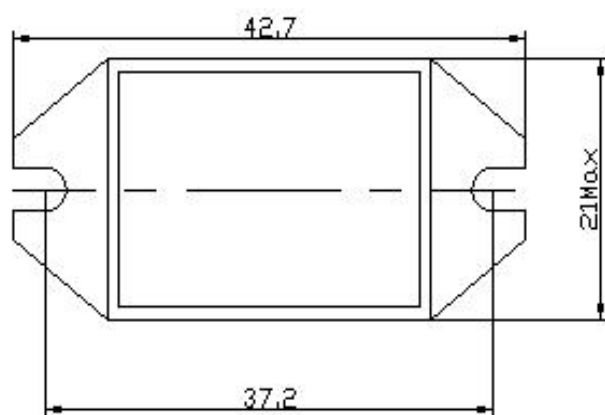
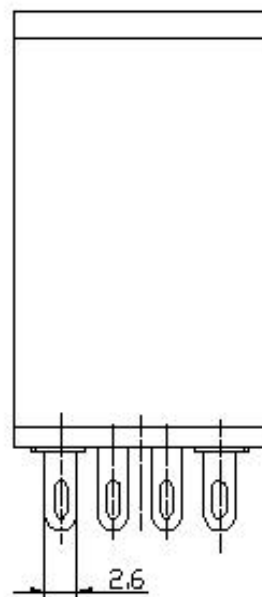
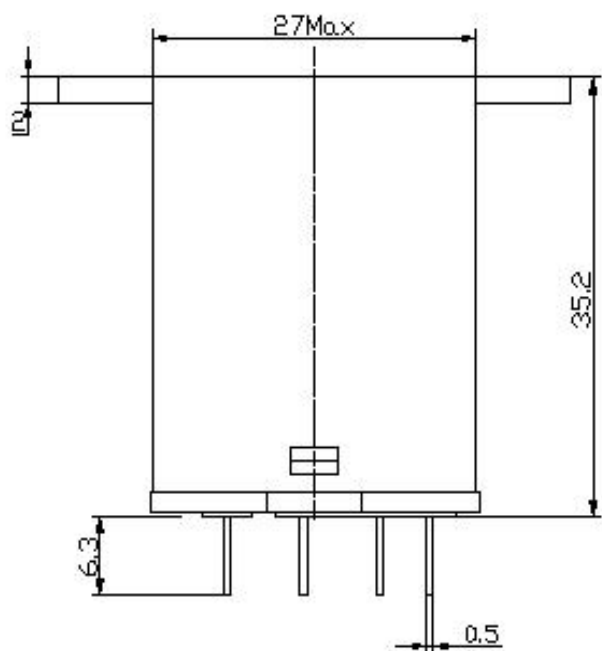
Note: Terminal dimension is dimension before soldering.

普通型 PCB 式
PCB type

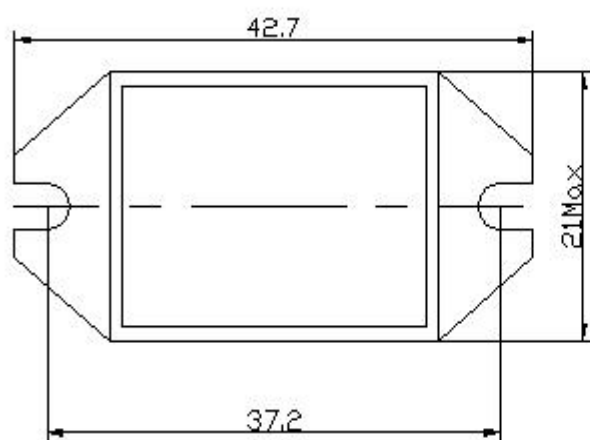
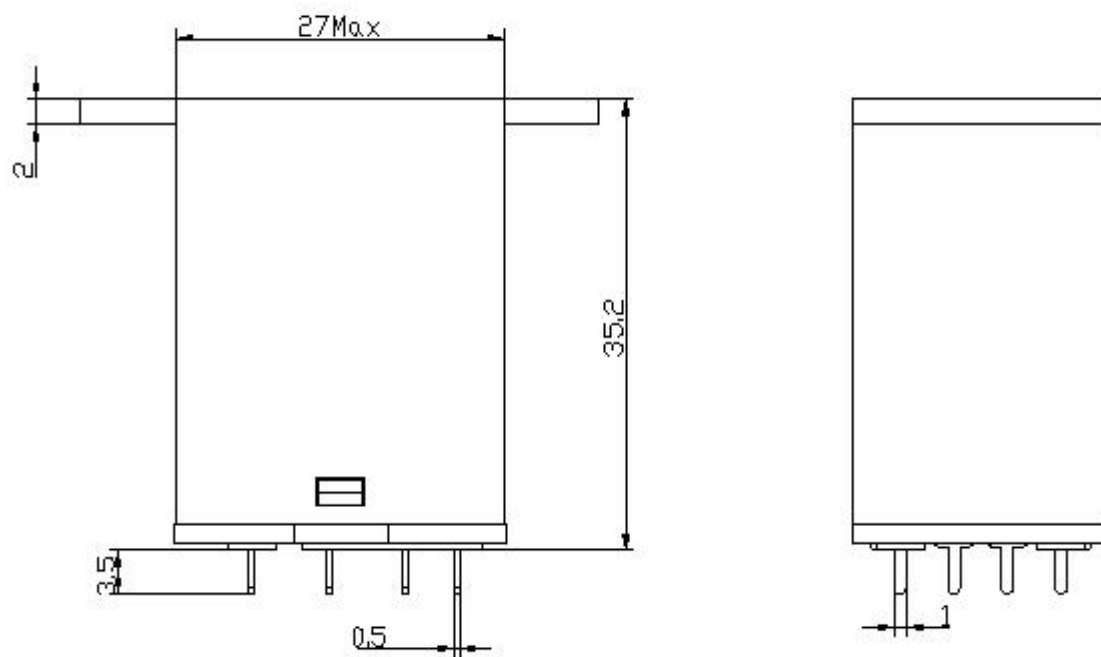


法兰型插座式

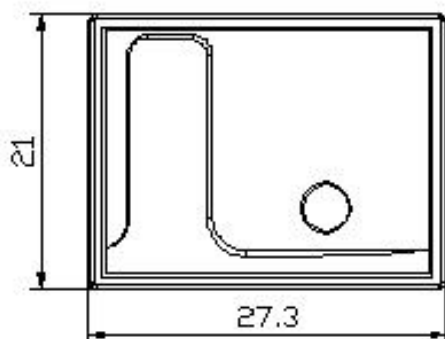
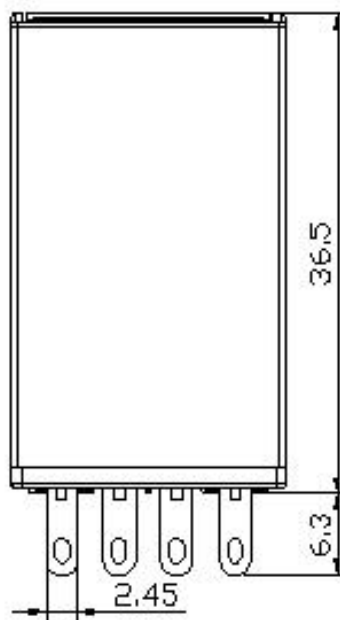
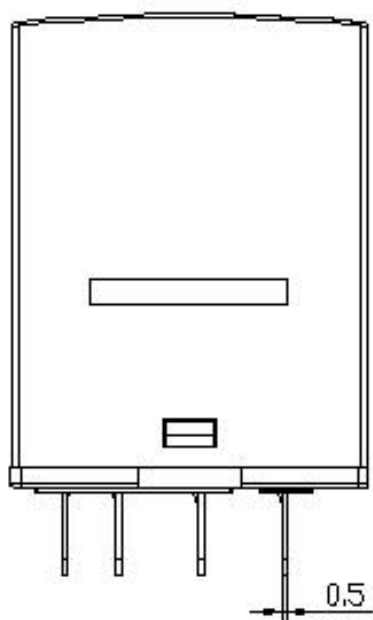
Flange & socket type



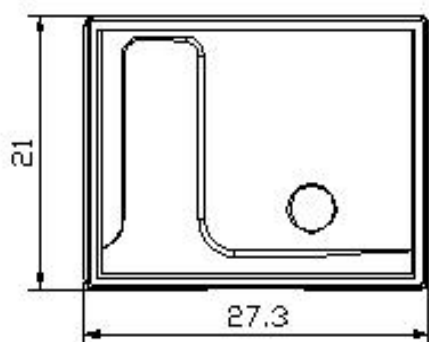
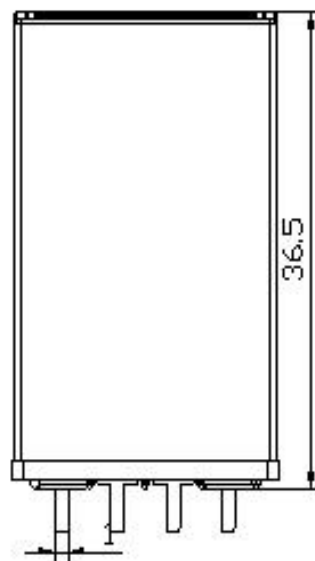
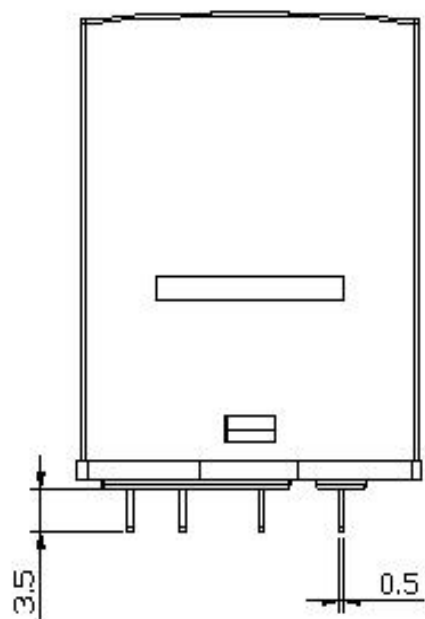
法兰型 PCB 式
Flange PCB type



盖板型插座式
Cover plate socket type

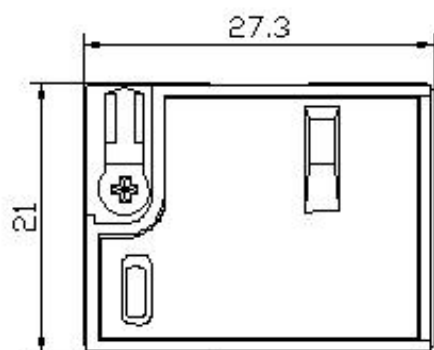
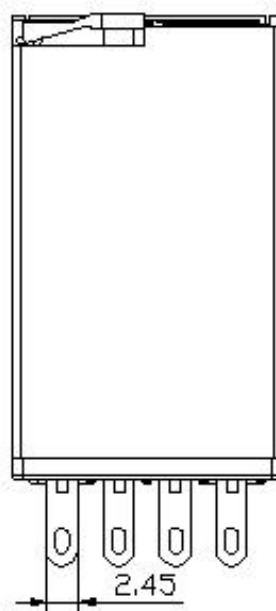
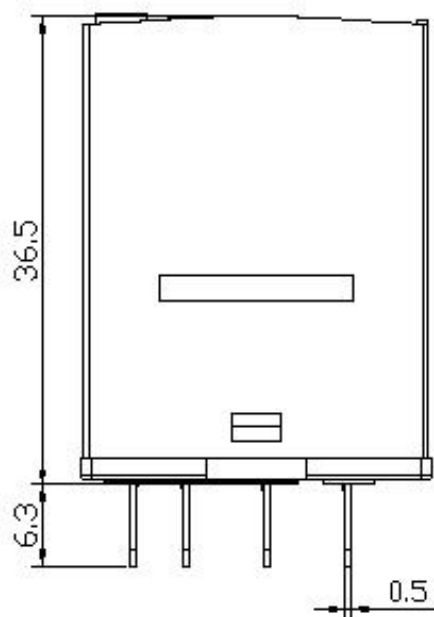


盖板型 PCB 式
Cover plate PCB type

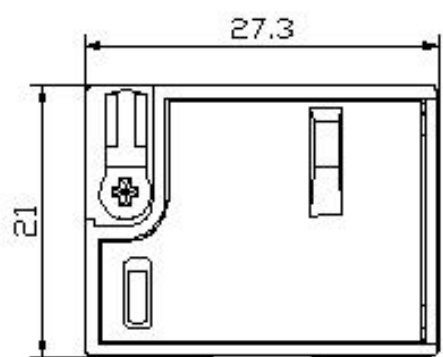
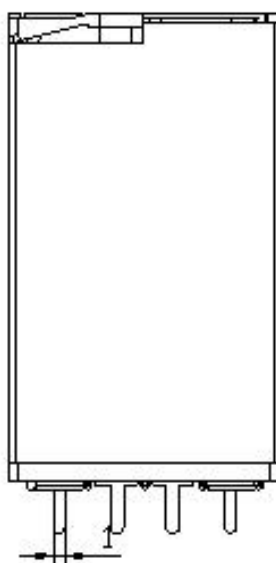
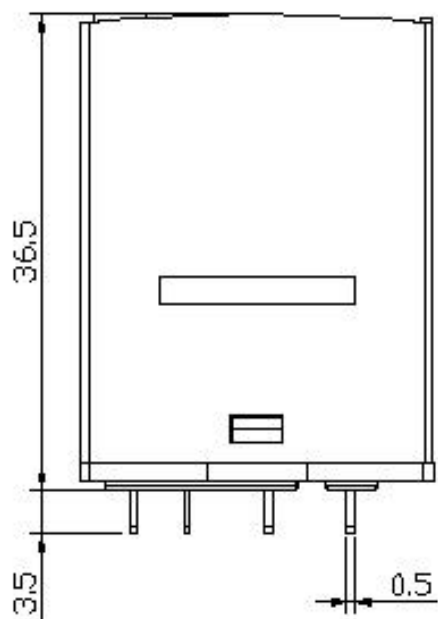


旋转型插座式

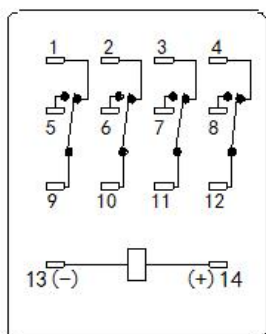
Rotary & socket type



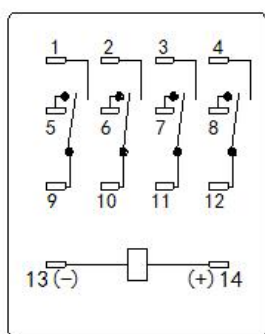
旋转型 PCB 式
Rotary PCB type



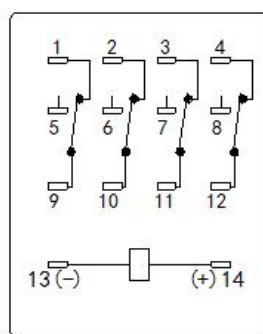
二、接线图(底视图) Wiring diagram (bottom view)



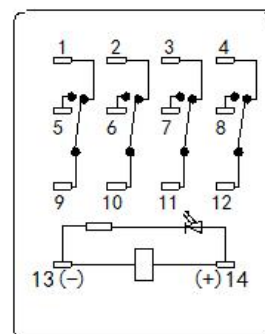
C 型
C type



A 型
A type



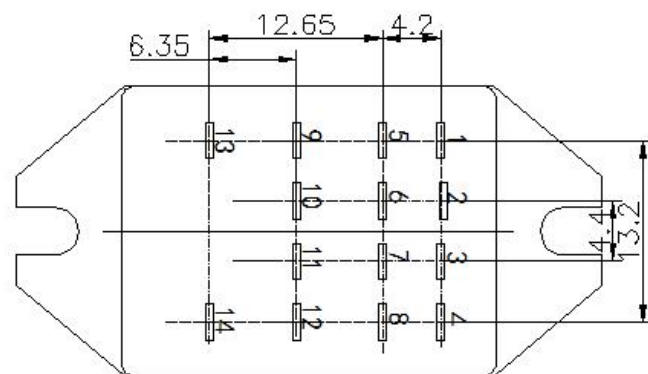
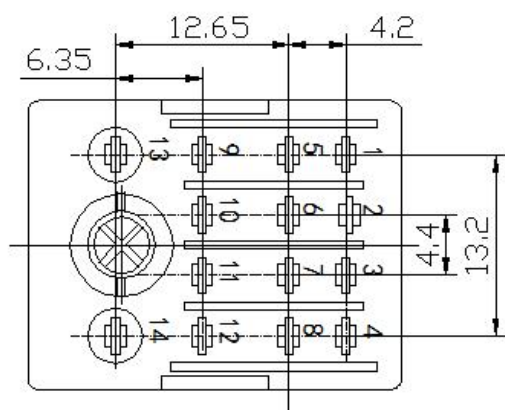
B 型
B type



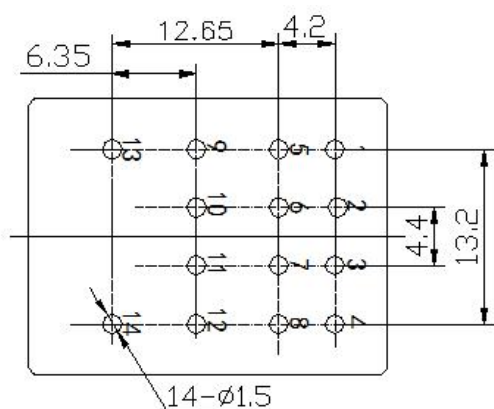
C 型带灯
C type With lamp

三、安装尺寸 Installation size

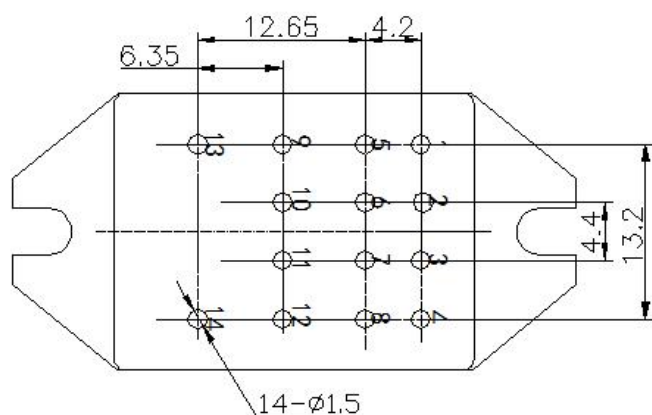
插座式 Socket type



PCB 式 PCB type



安装尺寸 (底视): 普通型
Mounting size (bottom view): common type



安装尺寸 (底视): 法兰型
Mounting size (bottom view): Flange type

注: 安装孔尺寸公差为 $\pm 0.1\text{mm}$

Note: Tolerance of P.C.B. layout 0.1 mm

典型用途 Typical Applications

- **广泛用于家用电器, PCB 线路板, 工业控制系统, 自动化控制系统等领域**

Home appliances such as air conditioner, microwave oven, PCB, industrial control system, Automation control systems and other fields

声明:

本产品规格书仅供客户使用时参考, 若有更改, 恕不另行通知。

对三友而言, 不可能评定继电器在每个具体应用领域的所有性能参数要求, 因而客户应该根据具体的使用条件选择与之相配的产品, 若有疑问, 请与三友联系获取更多的技术支持, 但产品选型责权由客户负责。

Disclaimer: The specification is for reference only. Specifications subject to change without notice.

This datasheet is for customers' reference. All the specification are subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should in a right position to choose the suitable product for their own application. For sealed relays after installation and cleaning, please open the vent hole on the case before use. If there is any query, please contact Sanyou for technical service. However it is the user's responsibility to determine which product should be used only.

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