


**特性**

- 30A触点切换能力
- 触点与线圈间介质耐压4kV
- 可提供3mm触点间隙产品
- 可提供触点大间隙3.0mm产品
- 外形尺寸：(50.2×33×36)mm

**触点参数**

触点形式	1A,2A
接触电阻 <sup>(1)</sup>	≤100mΩ(1A 24VDC)
触点材料	银合金
触点负载(阻性)	1A:30A 277VAC 2A:25A 277VAC
最大切换额定电压	277VAC
最大切换额定电流	1A:30A/2A:25A
最大切换额定功率	1A:8310VA/2A:6925VA
机械耐久性	10,000,000次
电耐久性(阻性)	100,000次

备注：(1) 上述值为初始值，吸合/释放时间不包含触点弹跳时间。

**性能参数**

绝缘电阻 <sup>(1)</sup>	1000MΩ(500VDC)	
介质耐压	线圈与触点间	4000VAC 1min
	触点极间(2A)	2000VAC 1min
	断开触点间	2000VAC 1min
动作时间(额定电压下)	≤30ms	
释放时间(额定电压下)	≤30ms	
冲击	稳定性	10G
	强度	100G
振动	标准GAP(2.0mm)：10Hz~55Hz 1.5mm 振幅 大GAP(3.0mm)：10Hz~55Hz 1.0mm 振幅	
湿度	5%~85%Rh	
温度范围	-40℃~85℃	
引出端形式	印制板式、快连接式、螺栓式	
重量	约120g	

备注：(1) 上述值为初始值，吸合/释放时间不包含触点弹跳时间。

**线圈规格表**

温度：23°C

**直流型**

额定电压 (VDC)	额定电流 ±%(mA)	线圈电阻 ±10%(Ω)	最大连续外加电压	吸合电压 (Max)	释放电压 (Min)	线圈额定功率 (W)
3	633.4	4.7	额定电压的110%	额定电压的75%	额定电压的10%	1.9
6	316.7	18.9				
12	158.4	75.8				
24	79.2	303				
48	39.6	1212				
100	19	5263				
110	17.3	6368				
200	9.5	21052				

**交流型**

额定电压 (VAC)	额定电流 ±%(mA)	线圈电阻 ±10%(Ω)	最大连续外加电压	吸合电压 (Max)	释放电压 (Min)	线圈额定功率 (VA)
6	450	13	额定电压的110%	额定电压的80%	额定电压的10%	2.7
12	225	53				
24	112.5	213				
48	56.3	853				
120	22.5	5333				
220	12.3	17926				

**安规认证**

认证类别		
证书号		
负载要求	1A	2A
	30A 277VAC TV-10 1.5HP 20FLA,125VAC 3HP 14.1FLA,277VAC 2HP 9.96FLA,277VAC	25A 277VAC TV-10 1HP 16FLA,125VAC 3HP 14.1FLA,277VAC 2HP 9.96FLA,277VAC

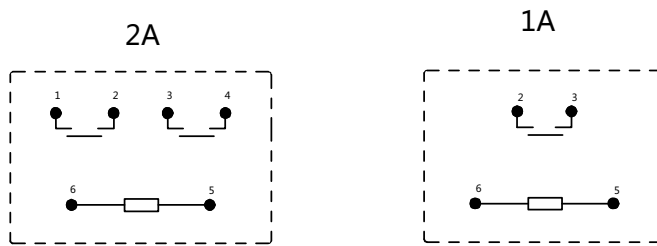
G91 命名规则

G91	-1A	-12	D	Q1	G	C	XXX
							特殊说明：无--标准型；字母或数字-特殊说明
							密封方式：无--塑封防尘；C--全密封型
							触点间隙：无--标准Gap≥2.0mm；G--Gap≥3.0mm
							端子形式：无--卡扣式外壳(PCB脚引出端)； Q1--卡扣式外壳(QC脚引出端)； Q2--锁螺钉外壳(PCB脚引出端)； Q3--锁螺钉外壳(QC脚引出端)； Q4--法兰式外壳(QC脚引出端)
							线圈功率：D--DC(1.9W)，A--AC(2.7VA)
							线圈额定电压：(VDC)：3,6,12,24,48,100,110,200
							线圈额定电压：(VAC)：6,12,24,48,120,220
							触点形式：1A--1组常开型；2A--2组常开型
							型号：G91

接线图

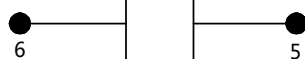
单位:mm

接线图 (底视图)

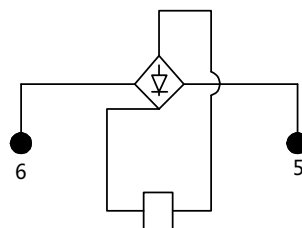


线圈接线图

(直流线圈)



(交流线圈)

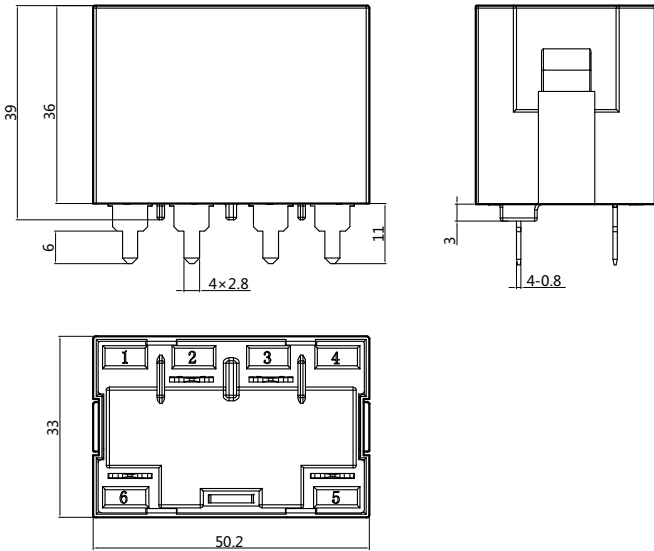


**外形图、安装孔尺寸图**

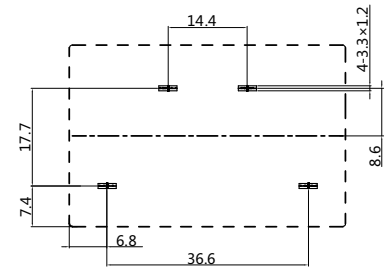
单位:mm

标准型 卡扣式外壳--PCB脚引出端

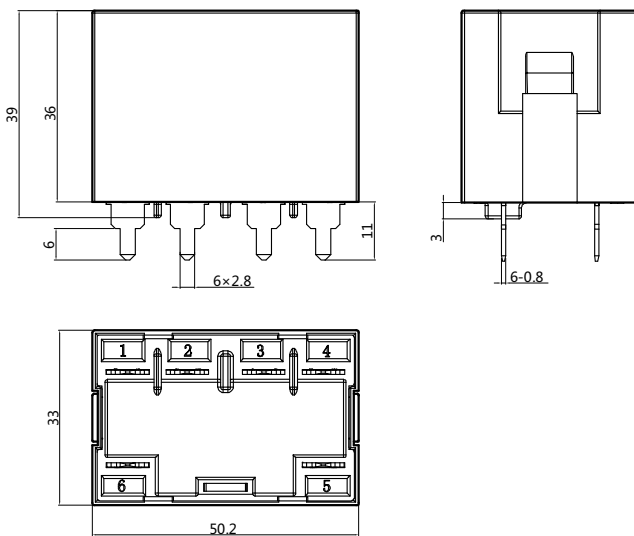
PCB外形图1A



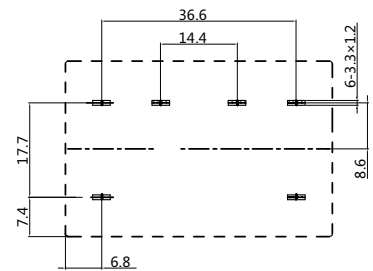
PCB安装孔尺寸1A(底视图)



PCB外形图2A



PCB安装孔尺寸2A(底视图)



注：产品部分外形尺寸未注尺寸公差，  
当外形尺寸 < 1mm，公差为±0.2mm；  
当外形尺寸在1~5mm之间时，  
公差为±0.3mm；当外形尺寸 > 5mm，  
公差为±0.4mm。

注：引出端子尺寸为预焊前尺寸；  
安装孔尺寸公差：±0.1mm。

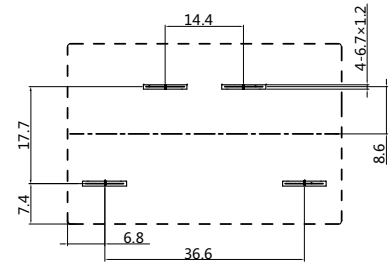
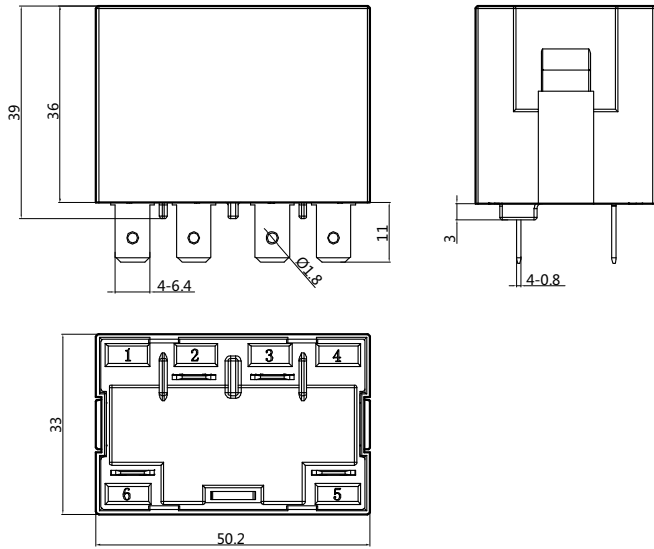
**外形图、安装孔尺寸图**

单位:mm

Q1 卡扣式外壳--QC脚引出端

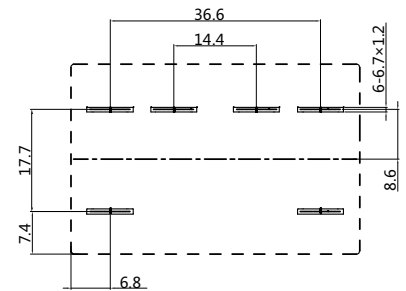
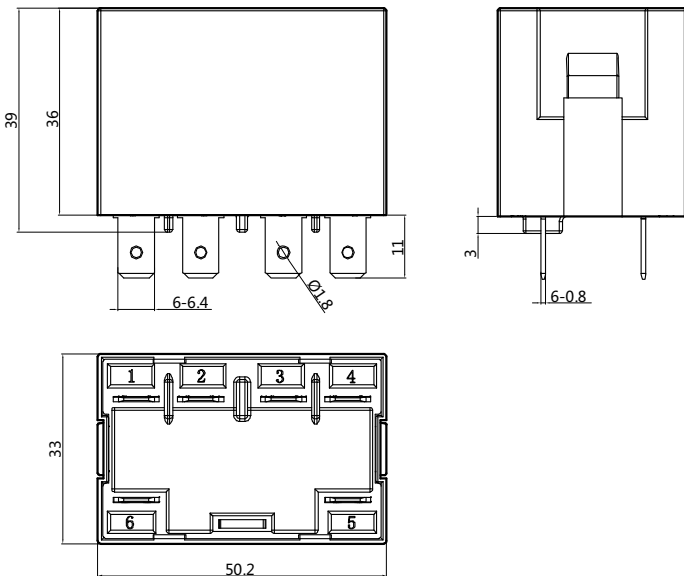
QC外形图1A

QC安装孔尺寸1A(底视图)



QC外形图2A

QC安装孔尺寸2A(底视图)



注：产品部分外形尺寸未注尺寸公差，  
当外形尺寸 < 1mm，公差为±0.2mm；  
当外形尺寸在1~5mm之间时，  
公差为±0.3mm；当外形尺寸 > 5mm，  
公差为±0.4mm。

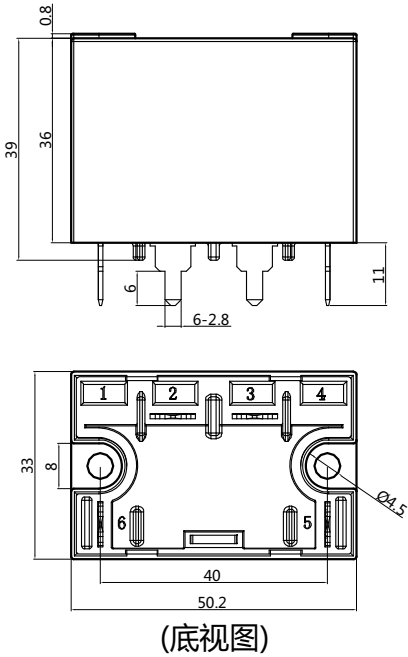
注：引出端子尺寸为预焊前尺寸；  
安装孔尺寸公差：±0.1mm。

外形图、安装孔尺寸图

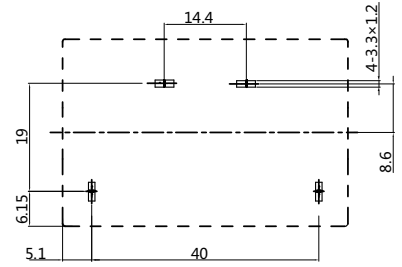
单位:mm

Q2 锁螺钉外壳--PCB脚引出端

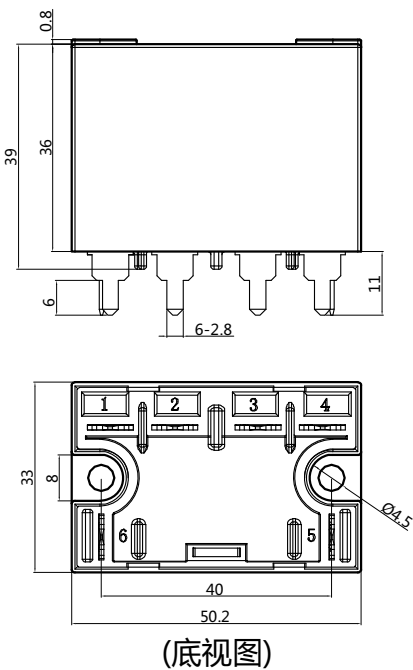
PCB外形图1A



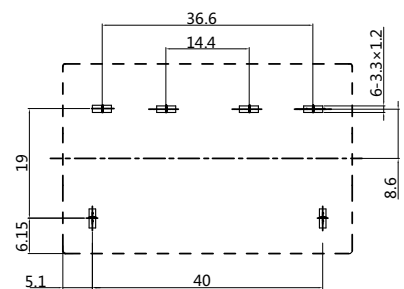
PCB安装孔尺寸1A(底视图)



PCB外形图2A



PCB安装孔尺寸2A(底视图)



注：产品部分外形尺寸未注尺寸公差，  
当外形尺寸 < 1mm，公差为±0.2mm；  
当外形尺寸在1~5mm之间时，  
公差为±0.3mm；当外形尺寸 > 5mm，  
公差为±0.4mm。

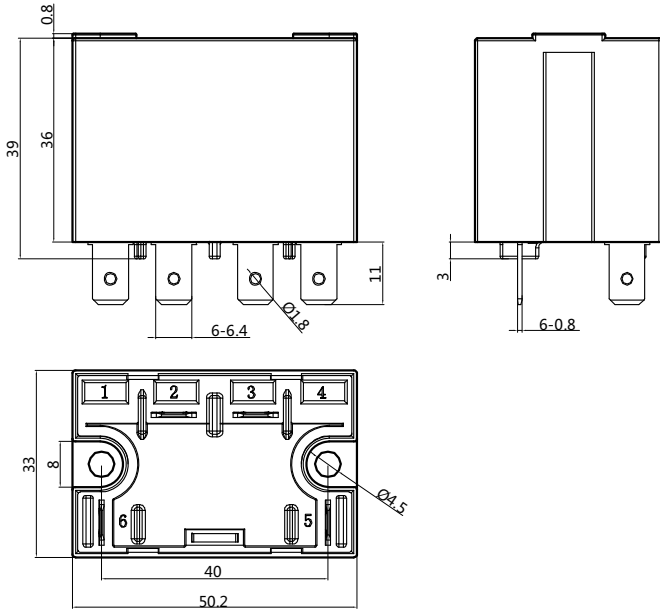
注：引出端子尺寸为预焊前尺寸；  
安装孔尺寸公差：±0.1mm。

外形图、安装孔尺寸图

单位:mm

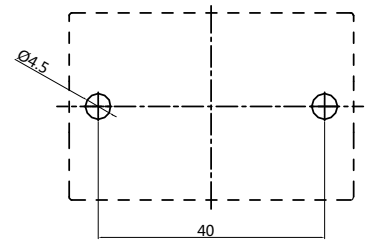
Q3 锁螺钉外壳--QC脚引出端

QC外形图1A

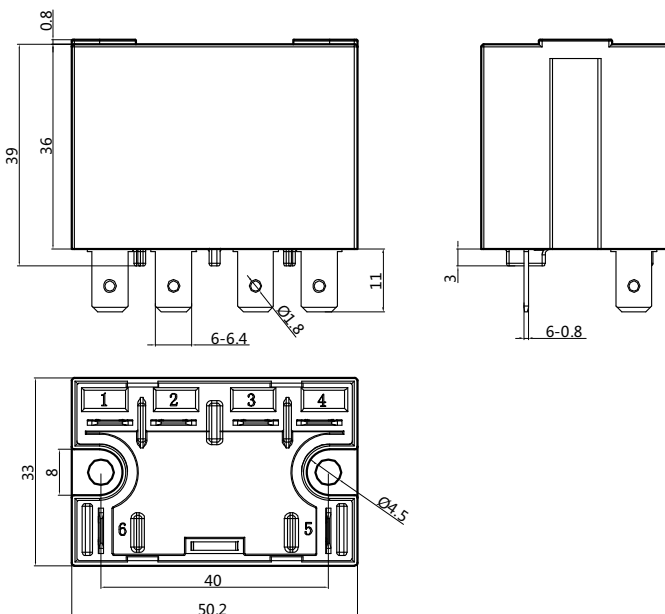


(底视图)

QC安装孔尺寸1A(底视图)

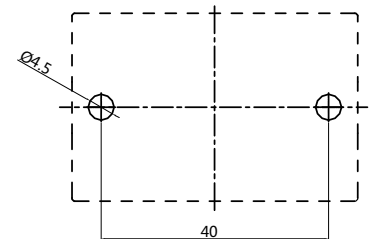


QC外形图2A



(底视图)

QC安装孔尺寸2A(底视图)



注：产品部分外形尺寸未注尺寸公差，  
当外形尺寸 < 1mm，公差为 $\pm 0.2$ mm；  
当外形尺寸在1~5mm之间时，  
公差为 $\pm 0.3$ mm；当外形尺寸 > 5mm，  
公差为 $\pm 0.4$ mm。

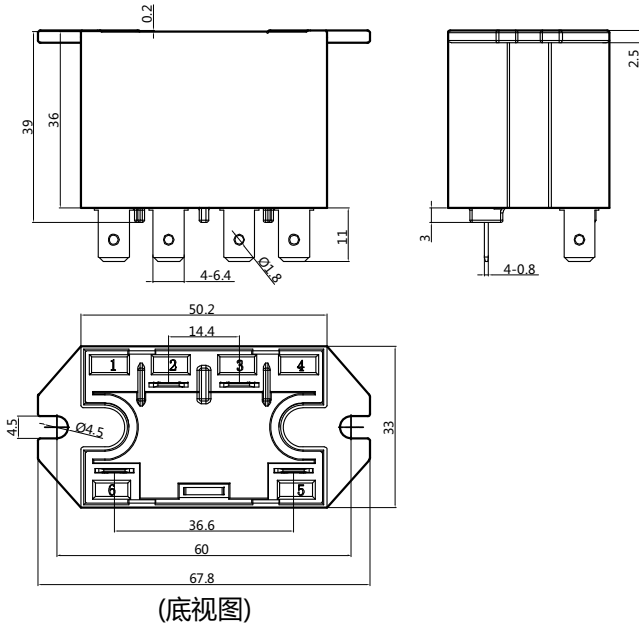
注：引出端子尺寸为预焊前尺寸；  
安装孔尺寸公差： $\pm 0.1$ mm。

**外形图、安装孔尺寸图**

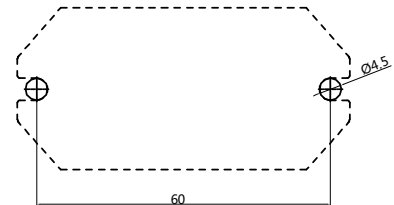
单位:mm

Q4 法兰式外壳--QC脚引出端

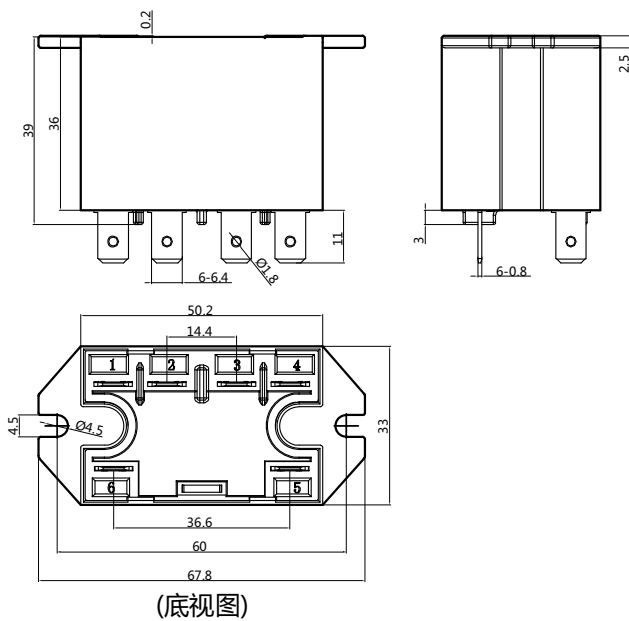
QC外形图1A



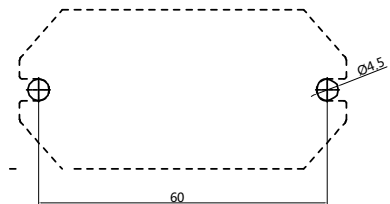
QC安装孔尺寸1A(底视图)



QC外形图2A



QC安装孔尺寸2A(底视图)



注：产品部分外形尺寸未注尺寸公差，  
当外形尺寸 < 1mm，公差为±0.2mm；  
当外形尺寸在1~5mm之间时，  
公差为±0.3mm；当外形尺寸 > 5mm，  
公差为±0.4mm。

注：引出端子尺寸为预焊前尺寸；  
安装孔尺寸公差：±0.1mm。

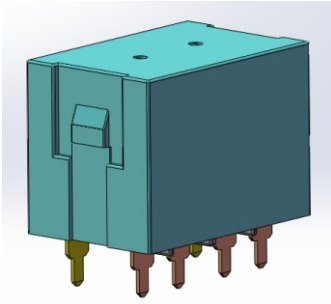
声明:

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。

对高登而言,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,请与高登联系获取更多的技术支持,但是产品选型责权由客户负责。

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**Characteristics**

- 30A contact switching capability
- The withstand voltage between the contact and the coil is 4KV, and the creepage distance is 8mm
- 3mm contact gap products available
- Sizes:(50.2× 33× 36)mm

**Contact parameter**

Contact form	1A,2A
Contact resistance <sup>(1)</sup>	≤100mΩ(1A 24VDC)
Contact material	Silver alloy
Contact load (resistance)	1A:30A 277VAC 2A:25A 277VAC
Max. Switching Voltage	277VAC
Max. Switching Current	1A:30A/2A:25A
Max. Switching Power	1A:8310VA/2A:6925VA
Mechanical Life	10,000,000 ops.
Electrical Life (Resistive)	100,000 ops.

Note: (1) The above values are initial values.

**Performance parameter**

Insulation resistance <sup>(1)</sup>	1000MΩ(500VDC)	
Dielectric Strength	Between coil & contacts	4000VAC 1min
	Between contacts & contacts	2000VAC 1min
	Between open contacts	2000VAC 1min
Operating time (at rated voltage)	≤30ms	
Release time (at rated voltage)	≤30ms	
Impact resistance	Malfunction	10G
	Durability	100G
Vibration resistant	Standard GAP (2.0mm): 10Hz~55Hz 1.5mm amplitude Large GAP (3.0mm): 10Hz~55Hz 1.0mm amplitude	
Humidity	5%~85%Rh	
Operating Condition	-40°C~85°C	
Terminal Type	PCB type, quick connect type, bolt type	
weight	About 120g	

## Coil parameter

Temperature: 23°C

### DC type

Rated voltage (VDC)	Rated current ±%(mA)	Coil resistance ±10%(Ω)	Maximum continuous applied voltage	Pull-in voltage (Max)	Release voltage (Min)	Coil rated power (W)
3	633.4	4.7	110% of rated voltage	75% of rated voltage	10% of rated voltage	1.9
6	316.7	18.9				
12	158.4	75.8				
24	79.2	303				
48	39.6	1212				
100	19	5263				
110	17.3	6368				
200	9.5	21052				

### AC type

Rated voltage (VDC)	Rated current ±%(mA)	Coil resistance ±10%(Ω)	Maximum continuous applied voltage	Pull-in voltage (Max)	Release voltage (Min)	Coil rated power (VA)
6	450	13	110% of rated voltage	80% of rated voltage	10% of rated voltage	2.7
12	225	53				
24	112.5	213				
48	56.3	853				
120	22.5	5333				
220	12.3	17926				

## Safety certification

Certification category	/	
Certificate No	/	
load requirement	1A	2A
	30A 277VAC TV-10 1.5HP 20FLA,125VAC 3HP 14.1FLA,277VAC 2HP 9.96FLA,277VAC	25A 277VAC TV-10 1HP 16FLA,125VAC 3HP 14.1FLA,277VAC 2HP 9.96FLA,277VAC

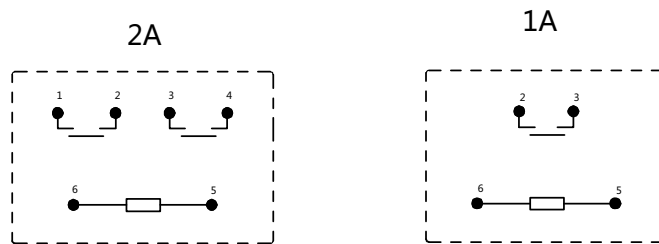
**G91 Naming rules**

G91	-1A	-12	D	Q1	G	C	XXX
							Special instructions: none--standard; letters or numbers-special instructions
							Sealing method : Blank--Dust protected (RT I) ; C--Fully sealed (RT III)
							Contact Gap: Blank--standard Gap≥2.0mm; G--Gap≥3.0mm
							Terminal form: none - snap-on shell (PCB pin lead-out); Q1--Snap-on shell (QC pin lead-out); Q2--lock screw shell (PCB pin terminal); Q3--lock screw shell (QC pin terminal); Q4--Flange shell (QC pin lead-out)
							Rated coil power : D--DC(1.9W) , A--AC(2.7VA)
							Rated Coil voltage ( VDC ) : 3,6,12,24,48,100,110,200 Rated Coil voltage ( VAC ) : 6,12,24,48,120,220
							Contact Form: 1A--1pole make contact ;2A--2 poles make contact
							Model: G91

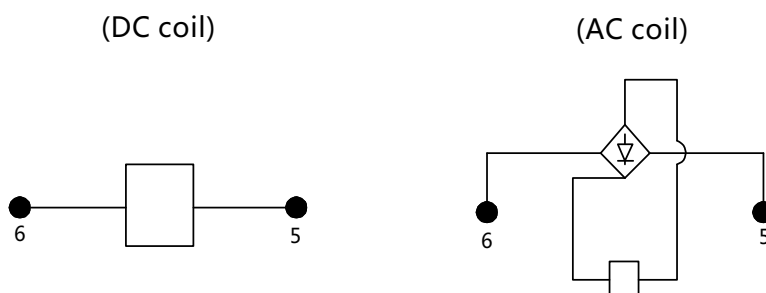
**Wiring Diagram**

**Unit: mm**

**Wiring Diagram (Bottom View)**



**Coil Wiring Diagram**

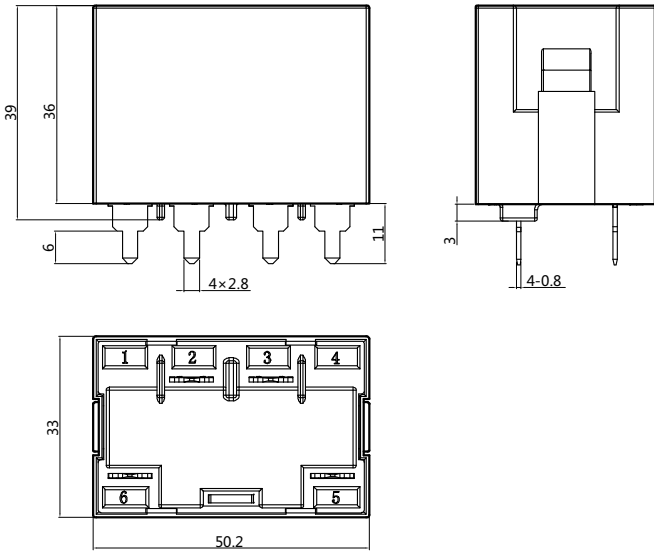


**Outline drawing, mounting hole dimension drawing**

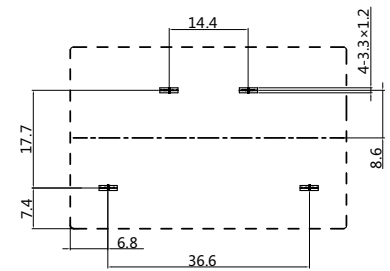
**单位:mm**

**Standard Snap-in Shell--PCB Pin Outlet**

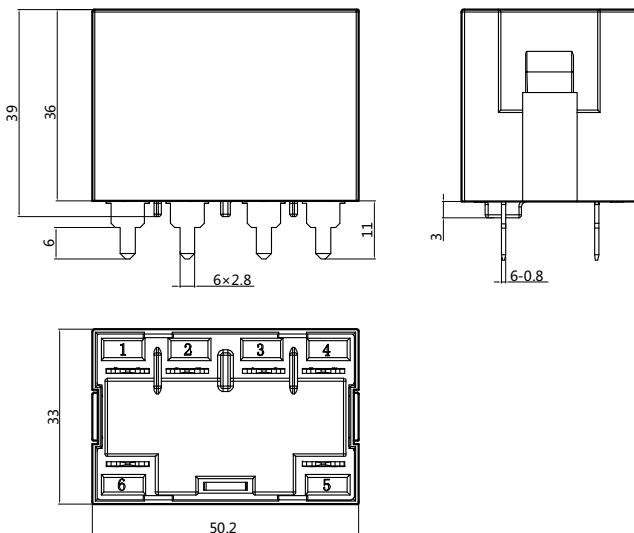
**PCB Outline Figure 1A**



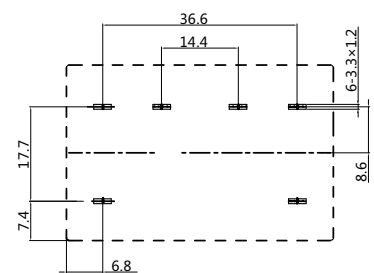
**PCB mounting hole size 1A (bottom view)**



**PCB Outline Figure 2A**



**PCB mounting hole size 2A (bottom view)**



Note: The size of the lead terminal is the size before pre-welding; the size tolerance of the mounting hole:  $\pm 0.1\text{mm}$ .

Note: Part of the product has no tolerances on the external dimensions.

When the external dimensions are less than 1mm, the tolerance is  $\pm 0.2\text{mm}$ ;

When the external dimension is between 1~5mm, the tolerance is  $\pm 0.3\text{mm}$ ;

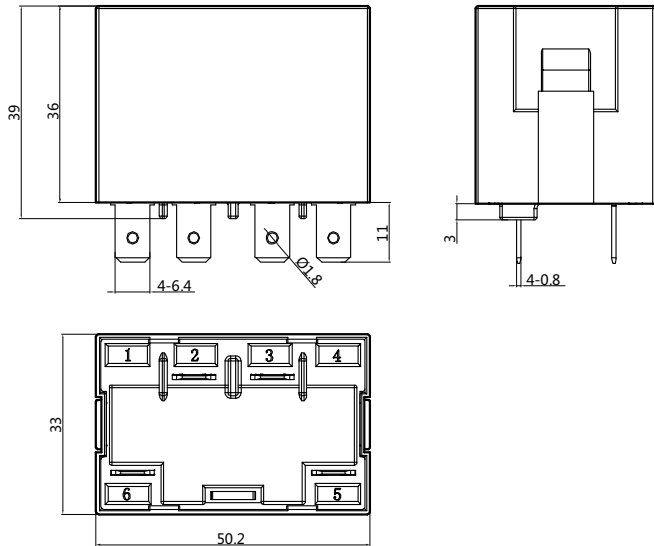
When the external dimension > 5mm, the tolerance is  $\pm 0.4\text{mm}$ .

**Outline drawing, mounting hole dimension drawing**

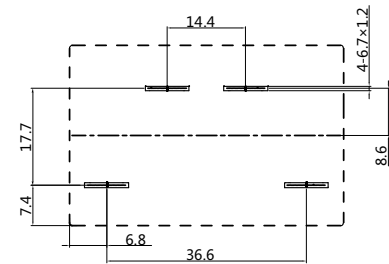
**单位:mm**

**Q1 Snap-on shell--QC pin terminal**

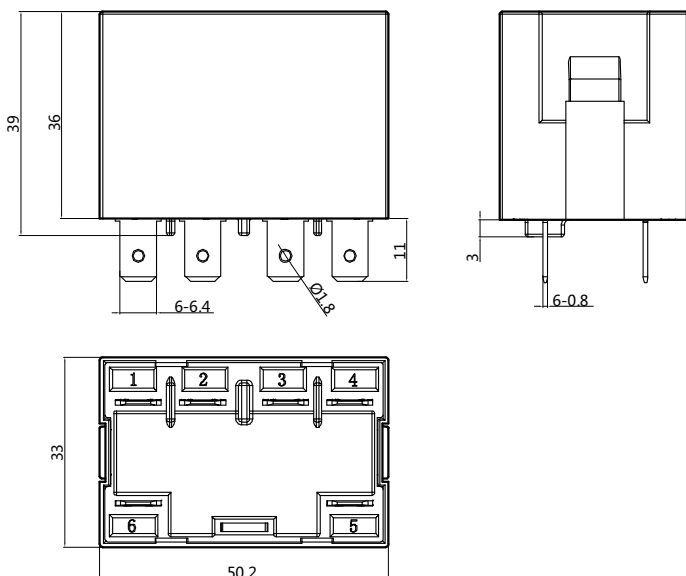
**QC Outline Figure 1A**



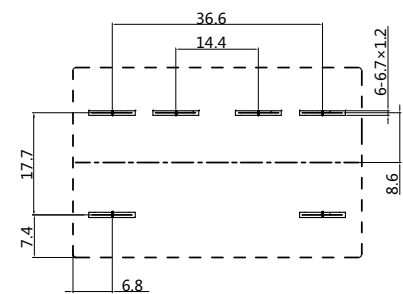
**QC mounting hole size 1A (bottom view)**



**QC Outline Figure 2A**



**QC mounting hole size 2A (bottom view)**



Note: The size of the lead terminal is the size before pre-welding; the size tolerance of the mounting hole:  $\pm 0.1\text{mm}$ .

Note: Part of the product has no tolerances on the external dimensions.

When the external dimensions are less than 1mm, the tolerance is  $\pm 0.2\text{mm}$ ;

When the external dimension is between 1~5mm, the tolerance is  $\pm 0.3\text{mm}$ ;

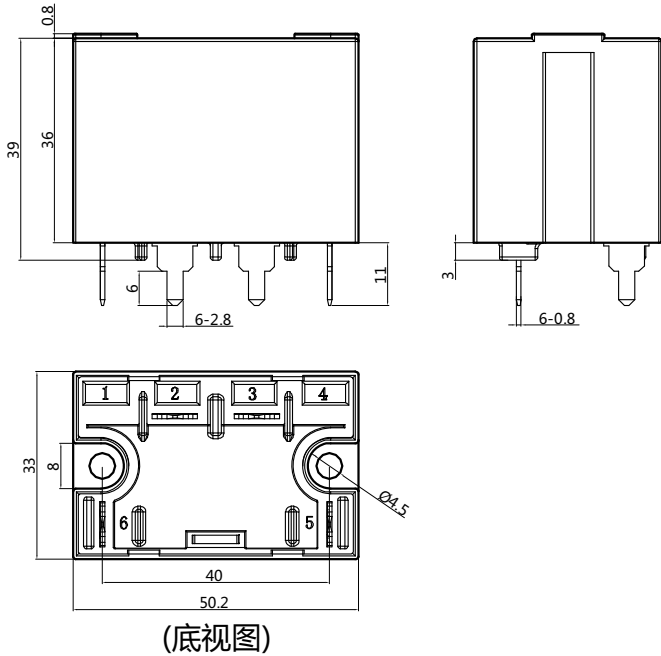
When the external dimension  $> 5\text{mm}$ , the tolerance is  $\pm 0.4\text{mm}$ .

Outline drawing, mounting hole dimension drawing

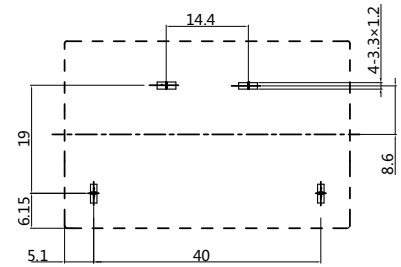
单位:mm

Q2 lock screw shell--PCB pin terminal

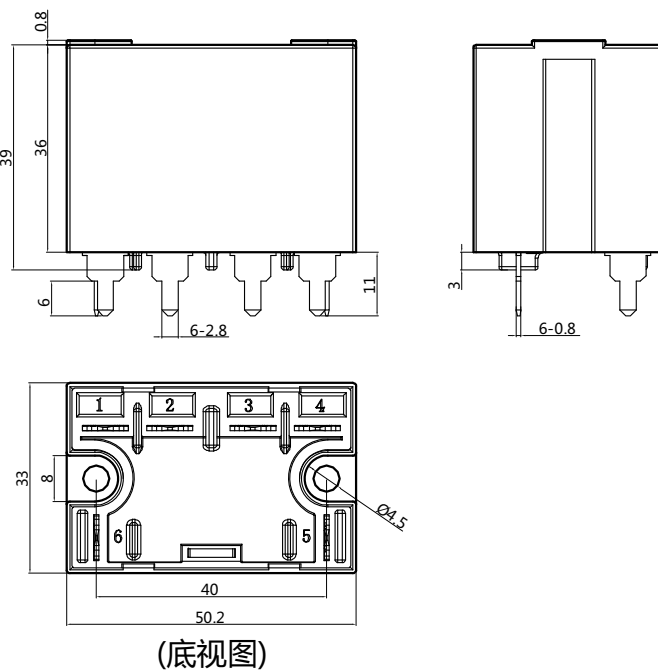
PCB Outline Figure 1A



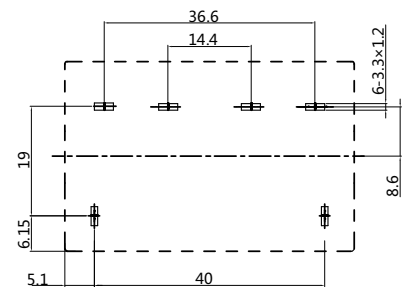
PCB mounting hole size 1A  
(bottom view)



PCB Outline Figure 2A



PCB mounting hole size 2A  
(bottom view)



Note: The size of the lead terminal is the size before pre-welding; the size tolerance of the mounting hole:  $\pm 0.1\text{mm}$ .

Note: Part of the product has no tolerances on the external dimensions.

When the external dimensions are less than 1mm, the tolerance is  $\pm 0.2\text{mm}$ ;

When the external dimension is between 1~5mm, the tolerance is  $\pm 0.3\text{mm}$ ;

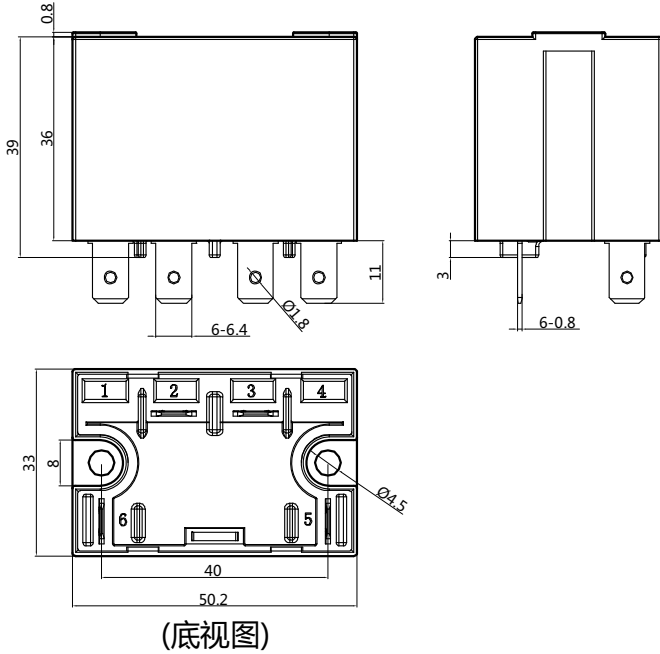
When the external dimension  $> 5\text{mm}$ , the tolerance is  $\pm 0.4\text{mm}$ .

Outline drawing, mounting hole dimension drawing

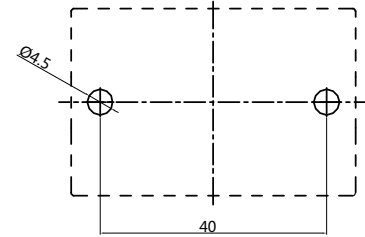
单位:mm

Q3 lock screw shell--QC pin terminal

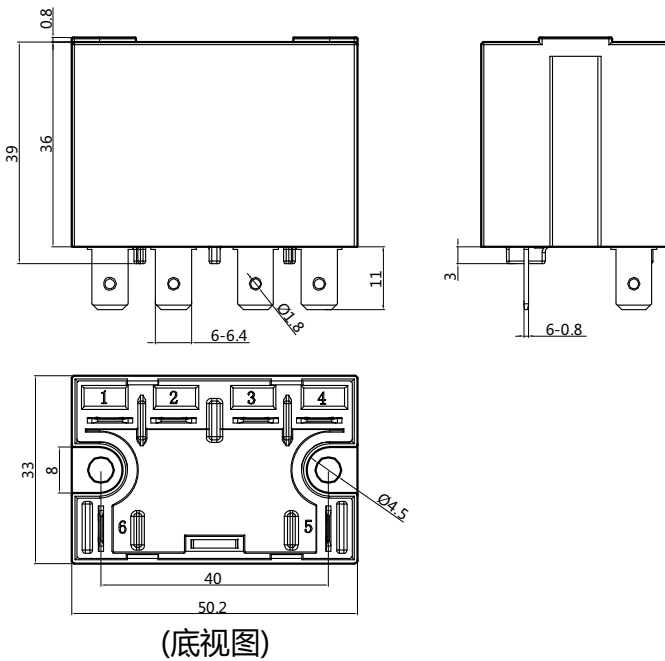
QC Outline Figure 1A



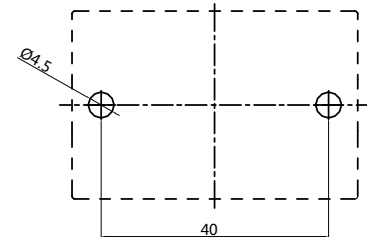
QC mounting hole size 1A  
(bottom view)



QC Outline Figure 2A



QC mounting hole size 2A  
(bottom view)



Note: The size of the lead terminal is the size before pre-welding; the size tolerance of the mounting hole:  $\pm 0.1\text{mm}$ .

Note: Part of the product has no tolerances on the external dimensions.

When the external dimensions are less than 1mm, the tolerance is  $\pm 0.2\text{mm}$ ;

When the external dimension is between 1~5mm, the tolerance is  $\pm 0.3\text{mm}$ ;

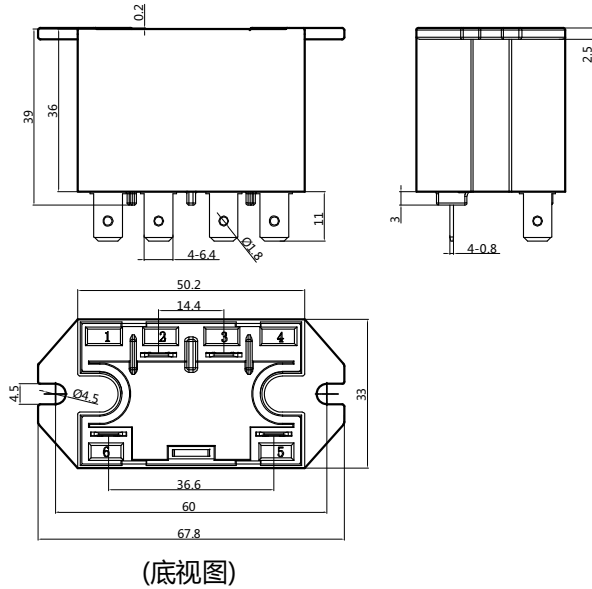
When the external dimension  $> 5\text{mm}$ , the tolerance is  $\pm 0.4\text{mm}$ .

Outline drawing, mounting hole dimension drawing

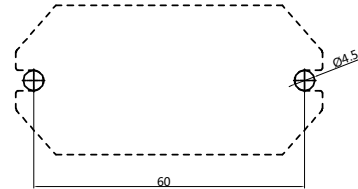
单位:mm

Q4 Flange housing--QC pin terminal

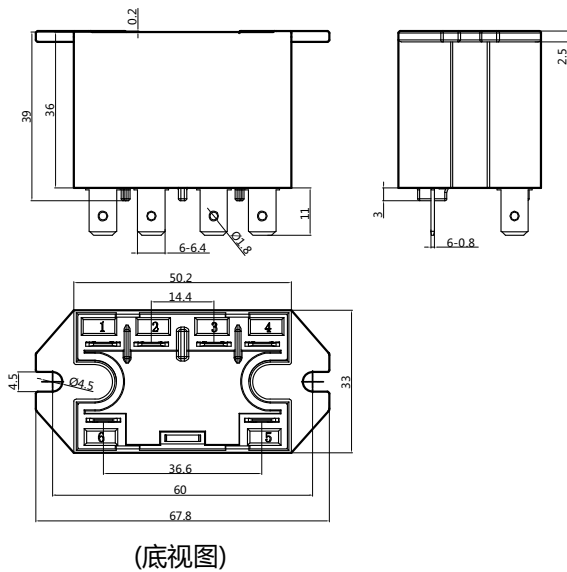
QC Outline Figure 1A



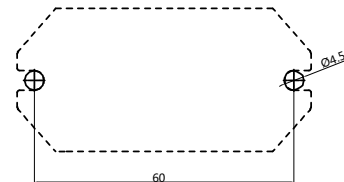
QC mounting hole size 1A  
(bottom view)



QC Outline Figure 2A



QC mounting hole size 2A  
(bottom view)



Note: The size of the lead terminal is the size before pre-welding; the size tolerance of the mounting hole:  $\pm 0.1\text{mm}$ .

Note: Part of the product has no tolerances on the external dimensions.

When the external dimensions are less than 1mm, the tolerance is  $\pm 0.2\text{mm}$ ;

When the external dimension is between 1~5mm, the tolerance is  $\pm 0.3\text{mm}$ ;

When the external dimension  $> 5\text{mm}$ , the tolerance is  $\pm 0.4\text{mm}$ .

statement:

This product specification is only for reference when customers use it, and subject to change without notice.

For Golden, it is impossible to evaluate all the performance parameter requirements of the relay in each specific application field. Therefore, the customer should choose the product that matches it according to the specific use conditions. If you have questions, please contact Golden for more technical support, but the customer is responsible for product selection.

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