

## 继电器产品承认书

### SPECIFICATION FOR APPROVAL

客户名称 Customer name: \_\_\_\_\_

产品名称 Product Description: 继电器 Relay \_\_\_\_\_

供方型号 Supplier Part No.: Y14F-SS-112L-115 \_\_\_\_\_

客户料号 Customer Material Code: \_\_\_\_\_

客户型号 Customer Part No.: \_\_\_\_\_

版 本 REV: \_\_\_\_\_

日 期 Date: \_\_\_\_\_

供应 厂商	制定	审核	批准
	管接仁	李建权	龙静恒
客户 确认	开发/工程 审核	品质部 审核	批准

## 一、基本特性 Basic characteristics

### 1、线圈参数 Coil specification

(1) 额定电压 Nominal voltage	DC 12V
(2) 线圈阻抗 Coil resistance	360 $\Omega$ $\pm$ 10% (at 23 $\pm$ 5 $^{\circ}$ C)
(3) 额定电流 Rated current	DC 33mA $\pm$ 10% (at 23 $\pm$ 5 $^{\circ}$ C)
(4) 动作电压 Operate voltage	DC 9.0V Max ((at 23 $\pm$ 5 $^{\circ}$ C)
(5) 释放电压 Release voltage	DC 0.6V Min ((at 23 $\pm$ 5 $^{\circ}$ C)
(6) 最大电压 Maximum voltage	DC 15.6V(130% of nominal voltage)
(7) 线圈温升 Coil temperature rise	45K Max (Coil:12V)

### 2、触点参数 Contact Specification

(1) 触点型式 Contact configuration	SPDT (1 Form C)—单刀双掷
(2) 触点额定负载 Contact rating	16A 250VAC; (Resistive load)
(3) 接触电阻 Contact resistance	Initial (初始值) 100 m $\Omega$ Max (At DC6V 1A)
(4) 动作时间 Operate time	10ms Max
(5) 释放时间 Release time	8ms Max
(6) 最大动作频率 Maximum operating frequency	Mechanically 18000 cycle/h (机械) Electrically 600 cycle/h (电气)
(7) 触点温升 Contact temperature rise	50K Max (Contact:16A)

### 3、通用参数 General Specification

(1) 绝缘阻抗 Insulation resistance	1000M $\Omega$ Min (at DC500V)
(2) 电气强度 Dielectric strength	
开路触点间 between open contacts	1000VAC,50/60 HZ for 1Minute
线圈与触点间 between contacts and coil	5000VAC,50/60 HZ for 1 Minute
(3) 环境温度 Ambient temperature	-40 $^{\circ}$ C $\sim$ +85 $^{\circ}$ C (Not freezing and condensing at low temperature)
(4) 相对湿度 Relative Humidity	45% to 85% RH
(5) 电气寿命 Electrical life	100,000 Operations Min (at 16A 250VAC)
(6) 机械寿命 Mechanical life	10,000,000 operations Min

### 4、体系、安规认证和环保 Quality System、Safety Certification and RoHS(REACH)

(1) UL certified	File NO. E341498; 16A 250VAC
(2) TUV certified	File No. R50198479 16A 240VAC
(3) CQC certified	File No. CQC11002056152 16A 250VAC
(4) ISO9001:2015 certified	File No. 00117Q38063R2S/4403
(5) RoHS and REACH Compliant	

## 二、环境参数 Environmental Characteristics

### 1、抗振动性 Vibration resistance

#### 1.1 误动作 Error operation

在 X、Y、Z 轴三个方向施加双振幅为 1.5mm，频率为 10-55HZ 的振动，时间 5 分钟，误动作时间不超过 1ms。

At constant vibration of double amplitude 1.5mm, 10 ~ 55 HZ , in each direction of X,Y,Z for 5 minutes. No error operation more than 1 ms.

#### 1.2 耐久性 Endurance

在三个方向施加振动 2 小时，无结构损坏。

No construction trouble when vibrate it from 3 directions for 2 hours.( Amplitude 1.5mm, 10~ 55 HZ)

### 2、抗冲击性 Shock resistance

#### 2.1 误动作 Error operation

在三个方向施加三次加速度为  $100\text{m/s}^2$  持续时间 11ms，误动作不超过 1ms。

At peak acceleration  $100\text{m/s}^2$  duration 11ms, 3 shocks is given in each direction of X, Y, Z. No error operation more than 1 ms.

#### 2.2 耐久性 Endurance

三个方向三次加速度为  $1000\text{m/s}^2$  持续时间 6ms，无结构损坏。

No construction trouble when shock it from 3 directions 3 times at peak acceleration  $1000\text{m/s}^2$  duration 6ms.

### 3、耐寒性 Cold resistance

#### 3.1 耐寒性 Cold resistance

放置于  $-40^\circ\text{C} \pm 2^\circ\text{C}$  环境温度下 240 小时，然后在标准条件下放置 2 小时，结构和性能无异常。

No any trouble on construction or characteristic when leave relay in  $-40^\circ\text{C} \pm 2^\circ\text{C}$  for 240h. After that, leave it in standard condition for 2 hours.

### 4、耐热性 Heat resistance

#### 4.1 耐热性 Heat resistance

放置于  $+85^\circ\text{C} \pm 2^\circ\text{C}$  环境温度下 240 小时，然后在标准条件下放置 2 小时，结构和性能无异常。

No any trouble on construction or characteristic when leave relay in  $+85^\circ\text{C} \pm 2^\circ\text{C}$  for 240h. After that, leave it in standard condition for 2 hours.

### 5、耐湿性 Moisture resistance

5.1 放置于  $40^\circ\text{C}$ ，湿度 90% 环境下 240 小时，然后在标准条件下放置 2 小时，绝缘电阻最小  $10\text{M}\Omega$ ，结构和性能无异常。

After keeping relay for 240h in  $40^\circ\text{C}$ , 90%, then leave it in standard condition for 2 hours. Insulation resistance  $10\text{M}\Omega$  Min. No any trouble on construction or characteristic.

### 三、端子性能 Terminal characteristics

#### 1、端子强度 Terminal strength

在端子上施加 5N 压力 10 秒钟，无变形现象。

5N pushed into any terminals for 10 s. There shall be no abnormalities.

(The curving of the terminals shall be acceptable)

#### 2、端子可焊性 Terminal solderability

端子浸入  $260\pm 5^{\circ}\text{C}$  焊锡槽中，时间  $5\pm 0.5\text{ s}$ ，90% 部位应该上锡。

In case of lead free solder  $260\pm 5^{\circ}\text{C}$ ,  $5\pm 0.5\text{ s}$ , 90% of the dipped portion shall be soldered.

#### 3、耐焊接热 Soldering thermal

端子浸入  $260\pm 5^{\circ}\text{C}$  焊锡槽中，时间  $10\pm 1\text{ s}$ ，结构和性能无异常。

No any trouble on construction or characteristic. When dipped into solder bath  $260\pm 5^{\circ}\text{C}$ ,  $10\pm 1\text{ s}$ .

### 四、标准测试条件 Standard test condition

#### 1、环境温度 Ambient temperature

$23\pm 5^{\circ}\text{C}$

#### 2、相对湿度 Relative humidity

25%~75%

#### 3、气压 Air pressure

86kPa~106kPa

#### 4、测试位置 Direction of Test

端子朝下位置 Terminals down position

### 五、储存条件 Storage condition

#### 1、环境温度 Ambient temperature

$-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$

#### 2、相对湿度 Relative humidity

35%~85%

#### 3、环境 Environment

##### 3.1、不要储存在诸如硫化氢和盐雾气体等有腐蚀性的环境中。

Store in locations where the product or container is not expose to corrosive gas such as hydrogen sulfide or salty air.

##### 3.2、储存在没有可视尘埃的环境中。

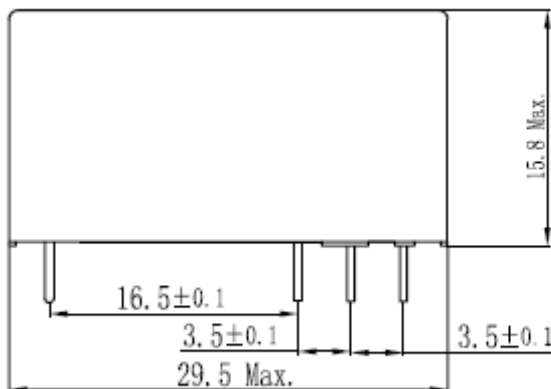
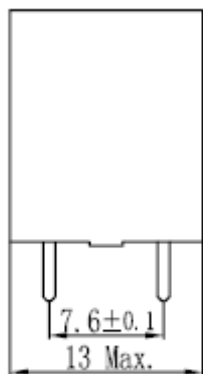
Store in locations where no visible dust exists.

##### 3.3、储存在没有直射阳光的环境中。

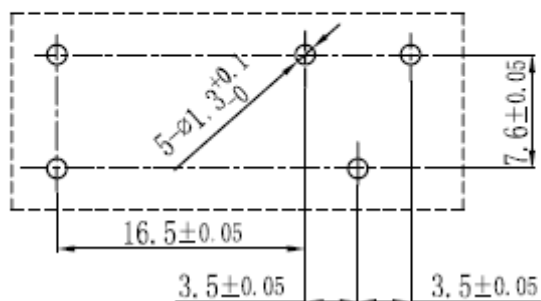
Store in locations not subject to direct sunlight.

## 六、外型图、线路板孔位图和线路图 Outline、PCB Layout and Wiring diagram(unit:mm)

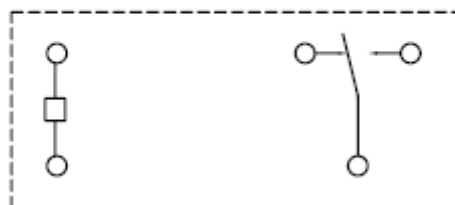
### 外型图 (OUTLINE)



PCB Layout  
(Bottom View)



Wiring diagram  
(Bottom View)



未标注尺寸公差:

<1mm: ±0.2mm

1~5mm: ±0.3mm

>5mm: ±0.4mm

注: 1、引出脚尺寸为预焊前尺寸

2、安装孔尺寸公差: ±0.1mm

## 七、包装信息 Packing Information

P/N	Inner packing	Carton Dimensions L×W×H (cm)	QTY (PCS) /carton	Net weight (Kg)	Gross weight (Kg)
Y14F	20pcs/tube	40.0 x 23.0 x 21.5	1000	12.0	13.5

## 八、命名规则 Encoding Information

Y14F — X — X X X X — X

1      2      3      4      5      6      7

1. 产品型号 Product type: Y14F
2. 封装方式 Enclosure  
SS---Flux-tight 防焊剂型      SH---Sealed case(Washable)完全密封型
3. 触点组数 Contact Pole  
1—1 pole      2—2 pole
4. 线圈额定电压 Coil Nominal Voltage  
05—5VDC      12—12VDC      24—24VDC
5. 线圈额定功率和触点负载 Coil Nominal Power and contact rating  
L—Sensitive coil power 0.4W/0.54W  
D—Standard coil power 0.72W
6. 触点型式 Contact arrangement  
Blank—Form C (转换型)      M—Form A (常开型)
7. 特殊代码 Special code(not necessary to be shown on product)  
115---小外壳 Small case  
Numbers or letters, do not represent electrical changes, these codes denote customer's requirements.

## 九、特别提醒 Reminds

- 1、如有任何特殊要求, 请联系元则电器公司。Any special requirements, please contact us.
- 2、在诸如 H<sub>2</sub>S、SO<sub>2</sub> 或 NO<sub>2</sub> 有害气体的环境中, 推荐选用完全密封型产品。Under the Environment with dangerous gas such as H<sub>2</sub>S, SO<sub>2</sub> or NO<sub>2</sub>, fully sealed type is recommended.
- 3、如果环境允许, 优先选用防焊剂型产品。If the ambience allows, flux proof type is preferentially recommended.
- 4、如果客户需要用超声波设备清洗 PCB 和继电器, 则必须选用完全密封型产品。If the user washes the



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PCB and relay in the ultrasonic cleaner, fully sealed type must be selected.