

# SPECIFICATION

## Type: HRS1KH-S-DC12V Relay

### 1. 线圈参数

1.1 额定电压	12VDC.
1.2 线圈电阻	720 $\Omega$ $\pm$ 10% at 23.
1.3 额定电流	16.7mA $\pm$ 10% at 23.
1.4 吸合电压	9.0VDC Max.
1.5 释放电压	1.2VDC Min.
1.6 最大线圈电压	15.6VDC(130%额定电压)
1.7 额定功耗	200mW

### 2. 触点参数

2.1 触点形式	1 Form C-转换型
2.2 触点材质	AuAg10/AgNi10/CuNi30
2.3 触点负载	Resistive: 3A 120VAC / 24VDC
2.4 最大切换电压	30VDC / 220VAC
2.5 最大切换电流	3A
2.6 最大切换功率	360VA, 72W
2.7 最小切换电流电压	10mA, 5VDC
2.8 接触电阻 (初始值)	Max.50m $\Omega$ at 6VDC 0.1A
2.9 电气耐久性	常温下 10,000 次 (1800 次/h) 试验后,介质耐压值应不小于初始值的 75%。
2.10 机械耐久性	空载条件下 10,000,000 次(18,000 ops/h)

### 3. 其他性能

3.1 绝缘电阻	Min.100M $\Omega$ at 500VDC
3.2 介质耐压(漏电流: 1mA)	
(1) 触点间	750VAC, 1 min , 50/60Hz
(2) 触点与线圈间	1,500VAC, 1 min , 50/60Hz
3.3 吸合时间	Max. 5 ms.
3.4 释放时间	Max. 5 ms.
3.5 工作温度	-40 to +70 $^{\circ}$ C
3.6 储存条件	
(1) 储存温度	-40 to +70 $^{\circ}$ C
(2) 环境	贮存于无腐蚀性气体的场所, 如硫化氢气体或有盐份的空气中。 贮存于产品不受阳光直射的场所, 不受雨淋的场所。

- 3.7 温升  
线圈 在 70℃环境温度下，触点施加 3A 负载，线圈用 110%额定电压进行激励，用电阻法测线圈温升应不超过 50K。
- 3.8 端子强度  
拉力和推力 继电器结构和性能应无任何异常当用1kg的拉力和推力推拉继电器端子10s。
- 3.9 可焊性 在锡温为 260±5℃的锡炉中浸渍 5±1s，端子应有 95%区域被锡覆盖。
- 3.10 耐焊接热 在锡温为 260±5℃的锡炉中浸渍 10±1s 后将继电器在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。如果是手工焊锡，必须在 350±10℃的锡温下浸渍 3.5±0.5s 。  
接触电阻应小于 100mΩ。
- 3.11 寒冷 继电器在-40±3℃温度下放置 2 小时后将其在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。  
接触电阻应小于 100mΩ。
- 3.12 干热 继电器在 85±2℃温度下放置 16 小时后将其在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。  
接触电阻应小于 100mΩ。
- 3.13 耐湿热 继电器在 90-95% RH 湿度，40±2℃温度下放置 48 小时后将其在常温常湿下恢复 1.5 小时，继电器结构和性能应无任何异常。  
绝缘电阻应不小于 10 MΩ，接触电阻应小于 100mΩ。
- 3.14 振动  
(1) 强度 继电器在 1.5 mm 双振幅，10~55~10Hz 的频率下每个方向（X、Y、Z）振动 2h，共 6h，继电器结构和性能应无任何异常
- (2) 稳定性  
(激励) 触点打开时间不超过 1ms 或更长时间当继电器在 1.5 mm 双振幅，10~55~10Hz 的频率下每个方向（X、Y、Z）经受 5 分钟的振动，共 30 分钟。
- 3.15 冲击  
(1) 强度 继电器在 1,000m/s<sup>2</sup> 加速度，时间为 6ms 的条件下每个方向（X、Y、Z）经受 3 次冲击，共 18 次冲击，继电器结构和性能应无任何异常
- (2) 稳定性  
(激励) 触点打开时间不超过 1ms 或更长时间当继电器在 100m/s<sup>2</sup> 加速度，时间为 11ms 的条件下每个方向（X、Y、Z）经受 3 次冲击，共 18 次冲击。

- 4 命名:  
HRS1K H - S - DC12V  
a b c d  
a: 继电器系列号  
b: 线圈功耗  
H 表示线圈功耗为 200mW  
c: 封胶型式  
S: 塑封型  
d: 线圈电压 DC12V
- 5 印字  
印字图号 Y-HRS1K-N9  
外壳颜色 黄色  
印字类型 激光印字
- 6 外形尺寸, 安装脚位, 接线图 图号. HKE4.520.048
- 7 安全认证 UL NO.E164730

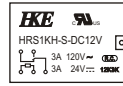


图1 1:1

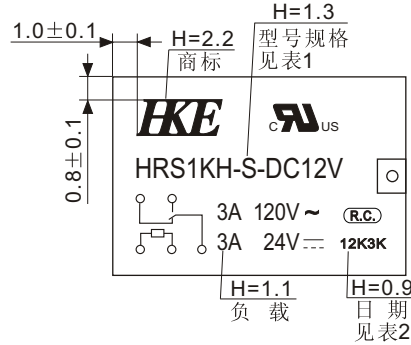


图2 2.5:1

表 1

HRS1K	H	S	DC12V
型号	线圈功率 无: 0.36W H: 0.2W	密封性: S: 塑封型	线圈电压: DC3V—DC24V

表 2

12	K	3	K
年份	月份: A:1月 E:5月 I:9月 B:2月 F:6月 J:10月 C:3月 G:7月 K:11月 D:4月 H:8月 L:12月	星期: 1:第1星期 2:第2星期 3:第3星期 4:第4星期	MAKER

技术要求:  
1.未注公差按±0.2,以上单位为mm;  
2.单线印字,线条、字迹应清晰、美观。

产品编号

HRS1K

旧底图总号

底图总号	设计	更改单号	签名	日期
日期	审核			
签名	工艺			
	标准化			
	批准			

HRS1K外壳(环保)  
标志图  
HRS1K Marking

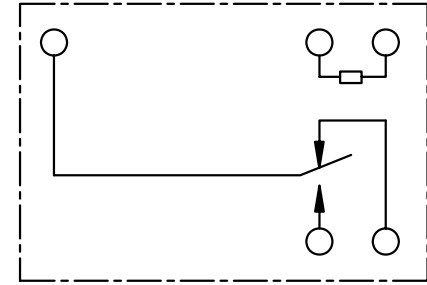
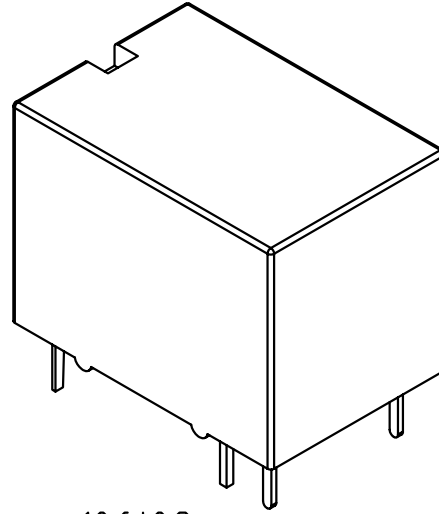
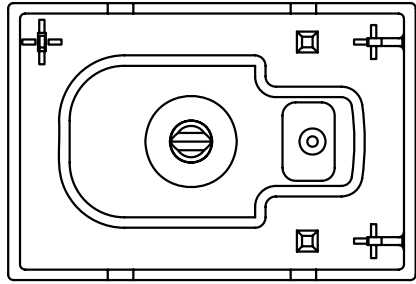
**HKE**

浙江汇港电器有限公司

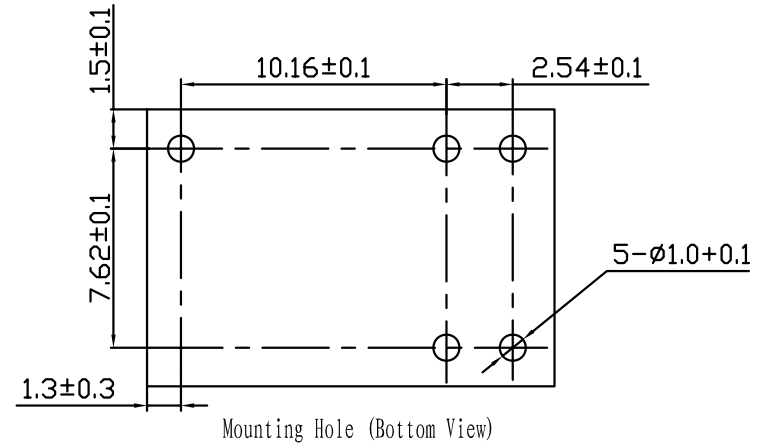
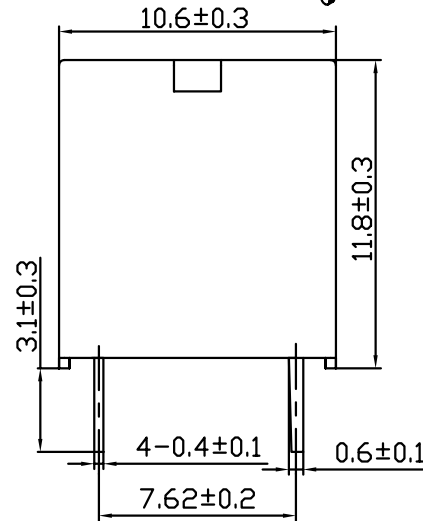
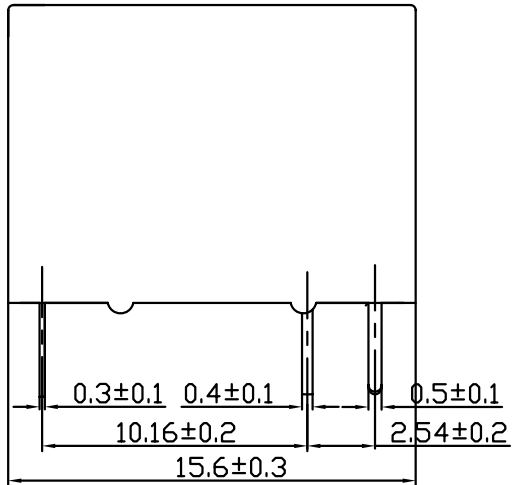
阶段	标记	质量	比例
共 页		第 页	

Y-HRS1K-N9

HKE4.520.048



Wiring Diagram (Bottom View)



Mounting Hole (Bottom View)



产品编号	
HRS1K	
旧底图总号	
底图总号	
日期	签名

标记	数量	更改单号	签名	日期
设计				
审核				
工艺				
标准化				
批准				

HRS1K 外形图 HRS1K Outline		<b>HKE.</b> 浙江汇港电器有限公司		
		阶段 标记	质量	比例
				5:1
		共 1 页		第 1 页
		HKE4.520.048		



# 质量管理体系认证证书

证书编号: 00111Q26542R4M/3302

兹证明  
浙江汇港电器有限公司

中国浙江省宁波市鄞州区云龙镇甲村(架山)162号

建立的质量管理体系符合标准:

**ISO9001:2008**

**GB/T 19001-2008**

通过认证范围如下:

电磁继电器的设计、组装生产和服务

首次发证日期: 2008年8月15日    本次发证日期: 2011年8月9日    有效期至: 2014年8月8日

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*王凯蛟*

Signed by: Wang Kejiao



## 中国质量认证中心

中国·北京·南四环西路188号9区 100070

<http://www.cqc.com.cn>



# ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate No.: 00112E21299R3M/3302

We hereby certify that  
Zhejiang HKE Relay Co., Ltd.

No.162 Jiacun(Jiashan), Yunlong Town, Yinzhou District, Ningbo City, Zhejiang Province, China

by reason of its  
**Environmental Management System**  
has been awarded this certificate for compliance with the standard

**ISO14001:2004**

**GB/T 24001-2004**

The Environmental Management System Applies in the following area:  
The Design, Production of Electromagnetic Relay and Related Management Activities

Certified since: Dec. 03, 2003

Valid from: Jul. 03, 2012

Valid until: Jul. 02, 2015

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC.  
Please access [www.cqc.com.cn](http://www.cqc.com.cn) for checking validity of the certificate.



Signed by: Wang Kejiao



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## NRNT2.E164730 Switches, Industrial Control - Component

[Page Bottom](#)

### Switches, Industrial Control - Component

[See General Information for Switches, Industrial Control - Component](#)

**ZHEJIANG HKE RELAY CO LTD**

E164730

28 JIA CUN INDUSTRY AREA

NINGBO, ZHEJIANG 315135 CHINA

**Relays**, Model(s) AC, followed by 3, followed by S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V or 24V, followed by A

**Relays**, Model(s) CMP6-S or F6-S, followed by DC5V, 6V, 9V, 12V, or 24V, may be followed by P

**Relays**, Model(s) CMP7 or CMP8, followed by Nil or S, followed by DC5V, DC6V, DC24V, DC9V, DC12V, DC24V, DC48V, followed by A or C

**Relays**, Model(s) CMP8(AT)-S followed by DC5V, DC6V, DC9V, DC12V, DC24V or DC48V, followed by A

**Relays**, Model(s) HCP, followed by 1, 2 or 3, followed by blank or S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V, 24V, 36V, 48V, followed by A or C, HRA, may be followed by H, may be followed by S, HRB1-S, followed by DC3V, DC5V, DC6V, DC9V, DC12V or DC24V, HRM, may be followed by 1 or 2, may be followed by H, may be followed by S

**Relays**, Model(s) HRM, may be followed by 3, may be followed by H or L, may be followed by S, may be followed by DC3-DC48, may be followed by T.

**Relays**, Model(s) HRM4, may be followed by H, may be followed by S, followed by DC3-DC24 incl

**Relays**, Model(s) HRM4, may be followed by H, may be followed by S, may be followed by DC3 - DC48, followed by SP, HRMF, followed by DC3V, DC5V, DC6V, DC9V, DC12V, DC18V, DC24V or DC48V

**Relays**, Model(s) HRS, may be followed by 3 or 4, may be followed by H, may be followed by A, may be followed by S, followed by DC3-D48 incl

**Relays**, Model(s) HRS1, may be followed by K, may be followed by B or H, may be followed by 3, may be followed by S, followed by DC, followed by XX, where XX is coil voltage, HRS2, may be followed by B or H, may be followed by S

**Relays**, Model(s) HRS2H, followed by S, followed by 3 VDC through 48 VDC, may be followed B, N or T

**Relays**, Model(s) HRS3, may be followed by N, may be followed by H, followed by S, followed by DC3V, DC5V, DC6V, DC9V, DC12V, or DC24V, may be followed by A or C

**Relays**, Model(s) HRS3-S, followed by DC3V, DC5V, DC6V, DC9V, DC12V or DC24V, followed by A or C

**Relays**, Model(s) HRS3T, may be followed by N, may be followed by H, followed by S, followed by DC, followed by 3V, 5V, 6V, 9V, 12V or 24V, followed by A or C

**Relays**, Model(s) HRS4, may be followed by T, may be followed by F, may be followed by H, followed by S, followed by DC, followed by 3V, through 60V may be followed by A

**Relays**, Model(s) HRS4E, followed by by Blank or H; followed by Blank or S; followed by DC3V, DC5V, DC6V, DC9V, DC12V, DC18V, DC24V or DC48V; followed by X or G

**Relays**, Model(s) L7, may be followed by S, followed by DC6V, DC12V, DC24V, DC48V, DC100V, DC110V, AC6V, AC12V, AC24V, AC48V, AC100V, AC120V, AC220V, AC240V, followed by 1A or 2A, followed by 2P or 2Q




**Relays**, Model(s) V6, may be followed by S, followed by DC3V, DC5V, DC6V, DC9V, DC12V, DC18V, DC24V or DC48V

**Relays, open type**, Model(s) AC5, may be followed by N, may be followed by S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V or 24V

**Relays, open type**, Model(s) F5, may be followed by H, followed by DC, followed by 3V, 5V, 6V, 9V, 12V, 18V, 24V or 48V, followed by P1,P2 or P3

**Relays, open type**, Model(s) HCP4, may be followed by S, followed by DC, followed by 5V, 6V, 9V, 12V, 18V, 24V, 36V, or 48V, followed by A or C.

**Relays, open type, for use in industrial application**, Model(s) LH-DC12V-Q-2C

Marking: Company name or tradename "E164730" or trademark  and model designation.  
Last Updated on 2010-01-10

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