

# 规格承认书


SPECIFICATION FOR APPROVAL

客户 CUSTOMER : 适用所有

品名 PRODUCT : 黄金铝壳（系列）电阻器

规格 TYPE : HRA5W-50W          HRB75W-500W

客户承认印 CUSTOMER APPROVED

 **广东翔胜电子科技有限公司**  
Guang Dong VICO Electronic Technology Co.,Ltd

地址：广东省东莞市大朗镇莞樟路大朗段746号301室  
电话：0769--86732158          传真：0769--86666888

一式二份          翔胜一份          客户一份

出图	业务	审核	核准
DRAWING	SALES	AUDITING	APPROVED
			

翔胜电子技术品质部

编号：SN2021

日期：2021年11月30日



**无卤**  
(F,Cl,Br,I)

# CEMENT

## CGOLD ALUMINUM CASE WIREWOUND RESISTORS 黄金铝外壳绕线电阻器

CEMENT (5W.10W.25W.50W)

### FEATURES 特点

1. High power and rugged, shock-proof Good heat-sink

功率大且坚固，耐震，散热性好

2. INSULATION FULLY CAN BE USED IN P.C.B.

使用於电路板，绝缘良好。

3. COMPLETE FLAMEPROOF CONSTRUCTION.

不燃性结构涂装。

4. USE FLUTING REPLACES WIREWOUND, CAN MANUFACTURE THE HIGH RESISTANCE RANGE (OVER 100)

使用刻槽代替绕线，可制作高阻抗电阻。

5. SUPPER HEAT DISSIPATION; SMALL LINEAR TEMPERATURE COEFFICIENT..

耐热性久，电阻系数直承直线变化。

6. INSTANT OVERLOAD CAPABILITY; WITHOUT ANNUAL SHIFT ON RESISTANCE VALUE.

耐短时间过负载，阻值长时间无变化。



### CONSTRUCTION 结构图

A CERAMIC CORE(HIGE THERMAL CONDUCTIVITY).

高品质陶瓷棒心。

B Element: Copper-nickel alloy or nikel-chromium alloy depending on resistance Value

电阻丝：铜镍合金或镍铬合金，依据阻值大小而定

C Core: Ceramic, steatite, depending on physical size

芯料：陶瓷或滑石瓷依据物理尺寸而定

D Encapsulant: Silico molded materials

密封材料：硅酮模压塑料

E Housing: aluminium with hard anodic coating

外壳：阳极氧化铝外壳

F End Caps: stainless steel

帽盖：不锈钢

G Standard Terminals: Threaded stainless steel terminals

引出端子：带螺纹的不锈钢棒



广东翔胜电子科技有限公司

### TYPE DESIGNATION 品名构成



阻值允许误差RESISTANCE (J: ±5%)

公称阻值RESISTANCE VALUE (Ω)

额定功率POWER RATING (W)

品种PRODUCT CODE (STYLE:HRX)

NOTE1注解: RATED VOLTAGE 额定电压 =

$\sqrt{\text{POWER RATING 额定功率} * \text{RESISTANCE VALUE 公称阻值}}$

# CEMENT

## CGOLD ALUMINUM CASE WIREWOUND RESISTORS 黄金铝外壳绕线电阻器

CHARACTERISTICS 特性项目	SPECIFICATIONS 规格值	TEST METHODS JIS C 5202 测试方法 JIS C 5202标准		
DC RESISTANCE 直流阻抗值	J (±5%)	RESISTANCE VALUE TEST AT ROOM TEMPERATURE 25°C 阻值测试在室温25°C		
T.C.R温度系数	±20PPM/°C ±50PPM/°C ±100PPM/°C	$\frac{R2-R1}{R1(T2-T1)} \times 10^6 \text{PPM/}^\circ\text{C}$ R1: RESISTANCE VALUE AT ROOM TEMPERATURE (T1) 常温 (T1) 阻抗值 R2: RESISTANCE VALUE AT ROOM TEMPERATURE +100°C (T2) 常温+100°C 阻抗值		
LOAD LIFE 负荷寿命	RESISTANCE CHANGE RATE IS ±(5%+0.05Ω) MAX WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻抗值变化率 (5%±0.05Ω) 以内, 电阻器不可有损伤	RESISTANCE CHANGE AFTER 1000H (1.5H ON, 0.5H OFF) AT RATED VOLTAGE IN A HUMIDITY CHAMBER CONTROLLED AT 40+/-2°C AND 90-95% RELATIVE HUMIDITY. (when the test voltage exceeds the working voltage, considering the working voltage) 温度40+/-2°C, 相对湿度90-95%于恒温恒湿箱中, 加额定直流电压测试1.5小时停止0.5小时, 连续1000小时。(当实验电压超过最高使用电压, 采用最高使用电压)		
	RESISTANCE CHANGE RATE IS ±(5%+0.05Ω) MAX WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻抗值变化率 (5%±0.05Ω) 以内, 电阻器不可有损伤	RESISTANCE CHANGE AFTER 1000H OPERATING AT RATED VOLTAGE WITH DUTY CYCLE OF 1.5H ON 0.5H OFF AT 70°C ±2°C (when the test voltage exceeds the working voltage, considering the working voltage) 温度70+/-2°C, 加额定直流电压测试1.5小时停止0.5小时, 连续1000小时 (当实验电压超过最高使用电压时, 采用最高使用电压)		
SHORT TIME OVER LOAD 短时间过负荷	±(2%+0.05Ω)	RESISTANCE CHANGE AFTER THE APPLICATION OF A POTENTIAL OF 2.5T RATED VOLTAGE FOR 5 SEC (when the test voltage exceeds the maximum overload, consider using the maximum overload voltage) 额定电压X2.5倍, 测试5秒 (当实验电压超过最高过负载时, 采用最高过负载电压)		
DIELECTRIC WITHSTANDING VOLTAGE 耐电压	NO EVIDENCE OF FLASH OVER MECHANICAL DAMAGE ARCING OR INSULATION BREAKDOWN 浆料不可烧损, 绝缘不可破坏	ELECTRIC RESISTANCE BOTH ENDS THE CONJUNCTION LINE PUT ON THE METALS V TYPE THE SLOT, ACCORDING TO THE ELECTRIC VOLTAGE PROVISION OF THE CHARACTERISTIC WATCH 60 SECONDS INFLECTION 电阻两端导线置于金属V型槽上, 依特性表之电压规定施加60秒		
PULSE OVER LOAD 断续过负荷	RESISTANCE CHANGE RATE IS ±(2%+0.05Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻抗值变化率 (2%±0.05Ω) 以内, 电阻器不可有损伤	RESISTANCE CHANGE AFTER 10000C (1SEC ON, 25SEC OFF) AT 4T RATED VOLTAGE (AC) when the test voltage exceeds the maximum overload, consider using the maximum overload voltage) 额定电压*4倍 (交流电压), 测试1秒停止25秒, 测试10000次。(当实验电压超过最高过负荷电压, 采用最高过负荷电压)		
TEMPERATURE CYCLING 温度循环	RESISTANCE CHANGE RATE IS ±(1%+0.05Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻抗值变化率 (1%±0.05Ω) 以内, 电阻器不可有损伤	STEP 步骤、	TEMPERATURE 温度	TIME (MIN) 放置时间
		1	-55°C ±2°C	30
		2	ROOM TEMP	10-15
		3	275°C ±2°C	30
4	ROOM TEMP	10-15		
HUMIDITY 耐湿性	RESISTANCE CHANGE RATE IS ±(1%+0.05Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻抗值变化率 (1%±0.05Ω) 以内, 电阻器不可有损伤	RESISTANCE CHANGE AFTER 240H EXPOSURE IN A HUMIDITY TEST CHAMBER CONTROLLED AT 40°C ±2°C AND 90-95% RELATIVE HUMIDITY. 温度40°C ±2°C, 相对湿度90-95%于恒温箱中, 不加电压连续放置240小时		
RESISTANCE TO SOLDERING HEAT 耐热性	RESISTANCE CHANGE RATE IS ±(1%+0.05Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻抗值变化率 (1%±0.05Ω) 以内, 电阻器不可有损伤	TEMPERATURE	DIP TIME	
		350°C ±10°C	3 ±0.5 SEC	
		260°C ±5°C	10 ±1.0 SEC	
EFFECT OF SOLDERING 焊接影响		±(2%+0.05Ω)		
INSULATION RESISTANCE 绝缘阻抗	>1000MΩ	DC 500V 直流500V		
NON-COMBUSTIBILITY 不燃性	Do not have obvious flame 不可有明显火焰	EX5.10.16 Times V 5min 按5.10.16倍额定功率加交流负荷5分钟		
Lead end strength 引出端强度	±(2%+0.05Ω)	5W-15W: Pulling force 20N, horizontal direction 10 seconds 5W-15W: 拉力20N, 水平方向10秒		
shock 震动	±(2%+0.05Ω)	Frequency: 10-50HZ, amplitude: 0.75MM Test time: 6 hours 频率: 10-50HZ, 振幅: 0.75MM 测试时间: 6小时		
Impact resistance 耐冲击	±(2%+0.05Ω)	100g, 6ms, ring 10 times 100g, 6ms, 循环10次		

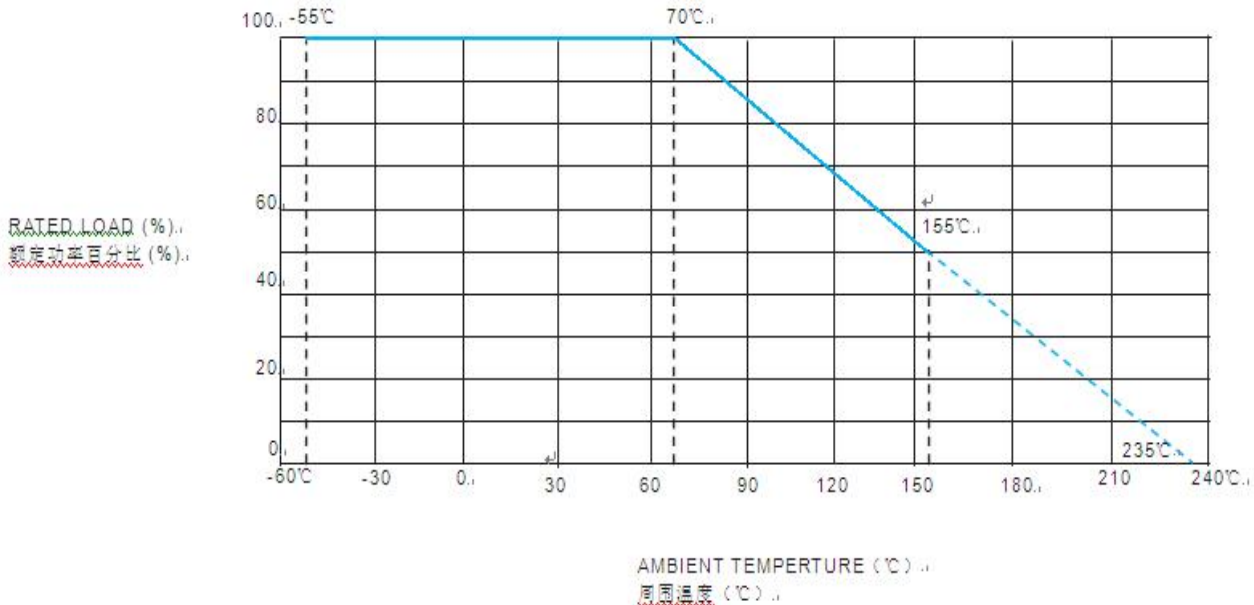
# CEMENT

## CGOLD ALUMINUM CASE WIREWOUND RESISTORS 黄金铝外壳绕线电阻器

### POWER CHARACTERISTIC 电力特性

POWER PATED 额定功率	5W	10w	15w	25W	50W	75W	100W	150W	200W	250W	300W	
ITEM												
MAX WORKING VOLTAGE 最高使用电压	160	265	265	550	1250	1400	1900	2500	1900	2200	2500	
MAX OVERLOAD VOLTAGE 最高过负荷电压	160	265	265	550	1250	1400	1900	2500	1900	2200	2500	
MAX INTERMITTENCE OVER LOAD VOLTAGE 最高断续过负荷	160	265	265	550	1250	1400	1900	2500	1900	2200	2500	
ELECTRIC WITHSTANDING VOLTAGE 绝缘耐电压	500	600	600	800	800	1000	1000	1200	1500	1800	2200	
RESISTANCE TOLERANCE 阻抗误差值	J (±5%) F (±1%)											
Standard Heatsink - Area (mm <sup>2</sup> ): 散热板表面积- (MM <sup>2</sup> )	41500	41500	53500	53500	53500	99500	99500	99500	375000	476500	578000	
Number of Mounting Holes 孔位	2	2	2	2	2	4	4	4	6	6	6	
RANGE (OHM) 阻抗值范围	MIN	0.01 Ω	0.01 Ω	0.01 Ω	0.01 Ω	0.01 Ω	0.05 Ω	0.05 Ω	0.1 Ω	0.1 Ω	0.1 Ω	0.1 Ω
	MAX	10K	15K	15K	36K	100K	50K	100K	100K	50K	68K	82K

### DERATING CURVE 降功率曲线



NOTE 注: 1. RATED AMBIENT TEMPERATURE: 70°C  
额定环境温度: 70°C

2. OPERATING TEMPERATURE RANGE: -55°C~+155°C  
使用温度范围: -55°C~+155°C

3. FOR RESISTORS OPERATED IN AMBIENT TEMPERATURE OVER 70°C, POWER RATING SHALL BE DERATED IN ACCORDANCE WITH THE FIGURE.

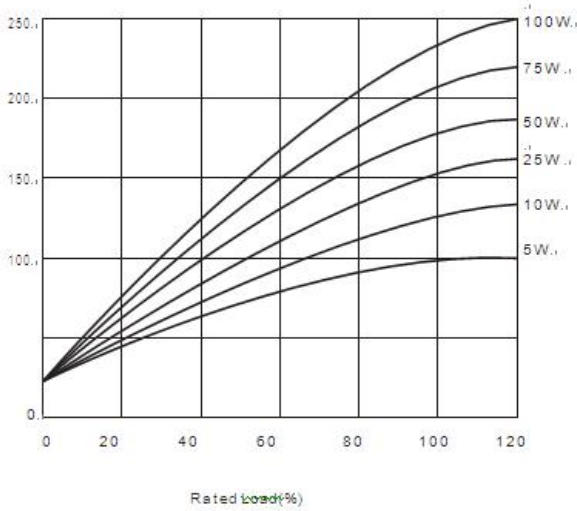
环境温度 70°C 以上使用时, 根据降功率曲线将减轻额定功率。

# CEMENT

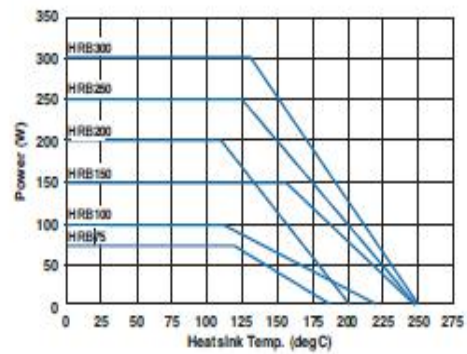
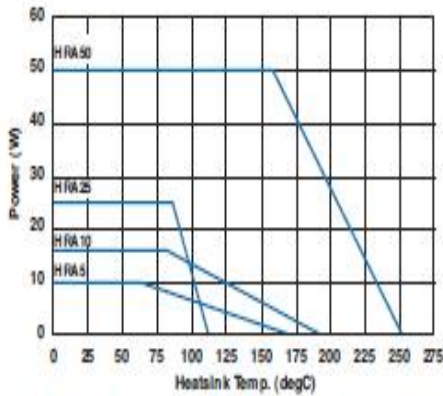
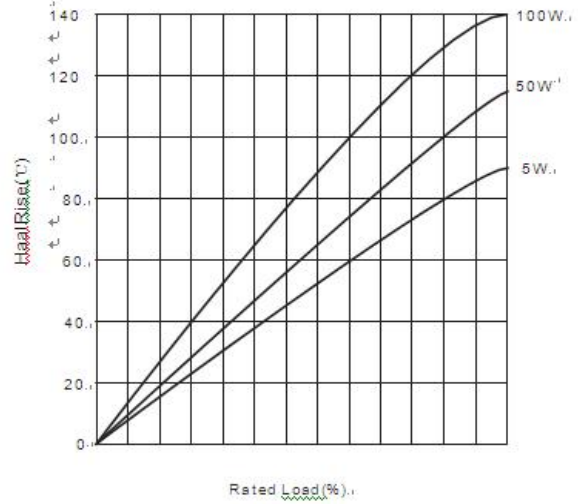
## CGOLD ALUMINUM CASE WIREWOUND RESISTORS 黄金铝外壳绕线电阻器

### DERATING CURVE 降功率曲线

温度上升曲线 Temperature rise



热上升曲线 Heat rise chart

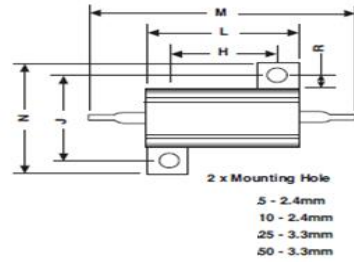
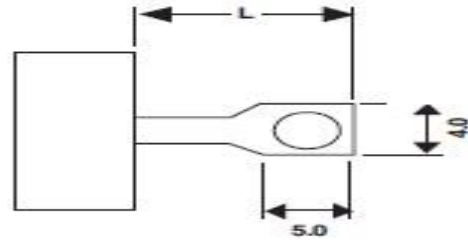


# CEMEN

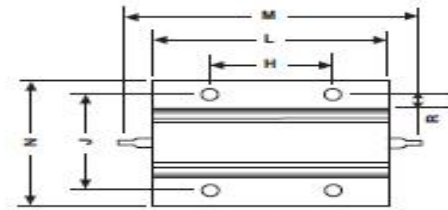
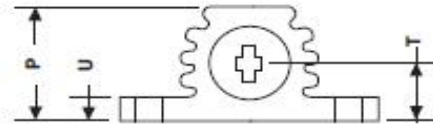
## CGOLD ALUMINUM CASE WIREWOUND RESISTORS 黄金铝外壳绕线电阻器

### HRA

TYPE 品名	DIMENSIONS (MM) 尺寸
5W	7
10W	7
15W	7
25W	10
50W	10
100W	8
150W	8



TYPE 品名	DIMENSIONS (MM) 尺寸									
	H±0.3	J±0.3	K±0.2	L Max	M Max	N MAX	P MAX	R Min	T±0.5	U Max
5W	11.3	12.4	2.4	17	30	17	9	1.9	4.3	2.5
10W	14.3	15.9	2.4	21	36.5	21	11	1.9	5.2	3.2
15W	14.3	15.9	2.4	21	36.5	21	11	1.9	5.2	3.2
25W	18.3	19.8	3.3	29	51	28	15	2.8	7.2	3.2
50W	39.7	21.4	3.3	51	72.5	30	17	2.8	8.2	3.2



4 x Mounting Hole  
HRB75 - 4.4mm  
HRB100 - 4.4mm  
HRB150 - 4.4mm

### HRB

TYPE 品名	DIMENSIONS (MM) 尺寸									
	H±0.3	J±0.3	K±0.2	L Max	M Max	N MAX	P MAX	R Min	T±0.5	U Max
75W	29	37	4.4	49	71	47.5	26	5	11.5	3.5
100W	35	37	4.4	65.5	87.5	47.5	26	5	11.5	3.5
150W	58	37	4.4	98	122	47.5	26	5	11.5	3.5
200W	35	57.2	5.3	90	143	73	42	5.6	20.25	5.3
250W	44.5	57.2	5.3	109	163	73	42	5.6	20.25	5.3
300W	52	59	6.5	128	180	73	42	5.6	20.25	5.3

