

高压分压电阻(High Voltage Divider Resistors)RI80-RTF 3W-50W

高精度、低温度系数、精密型高端高压分压电阻；
High Precision, Low Temperature Coefficient, Precision High Voltage Divider.
封装在变压器油或者环氧树脂中使用效果最佳
Submerged in dielectric oil or epoxy resin for best use results.



■ 结构 (Structure)

- 1.采用丝网印刷方式，印刷层几十微米厚的电阻膜，经高温烧结而成。基体为95%三氧化二铝陶瓷，导热系数好，机械强度高，电阻膜层采用贵金属钌系浆料，电性能稳定。
Screen printing, resistor film printed layer with thickness of tens of microns, sintered at high temperature. The matrix is 95% aluminum oxide ceramic, with good thermal conductivity and high mechanical strength. The resistor film with precious metal ruthenium slurry, with stable electrical properties.
- 2.工艺流程一般是电极印制→电极烧结→电阻印制→电阻烧结→介质印制→介质烧结，然后再经调阻、焊接、封装等工序制作而成。
Technological Process: electrode printing → electrode sintering → resistor printing → resistor sintering → medium printing → medium sintering, then resistance adjustment, welding, encapsulation and other processes.

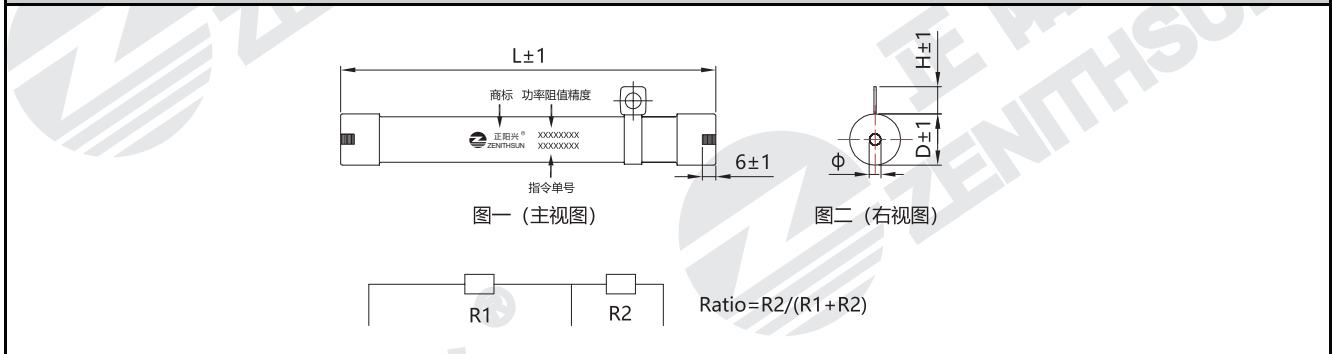
■ 特点(Features)

- 1.能在连续的高电压环境下工作的电阻器。
Work under continuous high voltage environment.
- 2.功率范围:3W-50W
Power Range:3W-50W
- 3.具有无感、耐高压、小体积大功率、寿命长、耐潮性好、电性能稳定的特点。
Non-Inductive, Resistance-high voltage, small size, high power, long life, Moisture Resistance, High Stability.
- 4.引出端采用内螺纹或外螺纹引出。
Leading Terminals : bolt /screw end caps

■ 适用范围 (Application)

深圳市正阳兴电子的系列高压电阻生产周期为2-3周，高压电阻的应用场合相当广泛,例如高压电力设备、医疗CT及X光机、高压测试设备、高压电源、真空设备、高压变频器、电压分压器、高压电路、电容器的泄放电路、高压缓冲电路、环保设备、静电除尘设备、电力系统、高压仪器仪表、脉冲调制器、显像设备、冲击电压发生器等，凡是用高电压或者脉冲的领域，高压电阻都适合。
Production Time : 2-3 weeks. Widely used in high voltage power equipment, medical CT and X-ray machines, high voltage testing equipment, high voltage power supply, vacuum equipment, high voltage frequency converter, voltage divider, high voltage circuit, capacitor discharge circuit, high voltage buffer circuit, environmental protection equipment, electrostatic dust removal equipment, power system, high voltage instruments and meters, pulse modulator, imaging equipment, impulse voltage generator, etc

■ 产品尺寸图表RI80-RTF (Dimension Chart)



型号 Type	功率 Power	阻值范围 Resistance Range	精度 Tolerance	尺寸 Dimensions(mm)				极限电压(KV) Max Voltage (KV)	分压比例 Dividing Ratio	净重(g) N.W	温度系数 T.C.R
				D±1	L±1	Φ±0.5	H±2				
RTF	3W	10KΩ-500MΩ	绝对精度 Absolute Precision: ±0.5% ~ ±5%	8	86.5	M4	7	10	1:1000	20	±50PPM
RTF	10W	10KΩ-500MΩ		14.5	156	M4	10	40	1:2000	60	
RTF	50W	10KΩ-500MΩ	相对精度 Relative Accuracy: ±0.1% ~ ±0.5%	33	310	M6	10	80	1:4000 1:5000	500	±260PPM

备注：如有特殊要求或者参数超出以上标准可协商供货
Note: other on requests are available

■ 定货示例 (How to order)

RTF	50W	20M	F
↓	↓	↓	↓
型号 Type	功率 Power	标称阻值 Nominal value	精度 (F:±1%,D:±0.5%,B:±0.1%) Tolerance(F:±1%,D:±0.5%,B:±0.1%)

■ 高压电阻RI80性能实验参数 (Performance Characteristics)		
项目 (Test)	试验条件 (Conditions of Test)	性能要求 (Testing Results)
电阻值容许误差 Resistance Tolerance	测试电压≤3V,环境温度25°C Testing Voltage ≤3V, Ambient Temperature 25°C	B--C--D---F---G---J---K
温度系数 T.C.R	$\frac{R1-R0}{R0(T1-T0)} \times 10^6$ (PPM/°C) R0:常温(T0)下阻值 R0:Room Temperature(T0)Resistance R1:常温T0+100°C(T1)下阻值 R1:Room Temperature T0+100°C(T1)Resistance	±50PPM~ ±1000PPM
短时间过负荷 Short Time Overload	5倍额定功率, 但不超过最大连续工作电压的1.5倍5秒钟 5 times rated power for 5 seconds, but not over 1.5 times continuous Umax	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$
绝缘电阻值 Insulation Resistance	1000Vdc	≥10GΩ1Min
室温耐久性 Load Life	额定电压, 通电90分钟, 停30分钟, 共1000小时 At rated voltage, 90 min "On", 30 min "Off", total 1000hours	$\Delta R \leq \pm(0.5\%R + 0.1\Omega)$
耐湿性 Humidity Resistance	温度: 40±2°C 湿度: 90%-95%.240小时 Temp:40±2°C Humidity:90%-95%.240hours	$\Delta R \leq \pm(0.4\%R + 0.1\Omega)$
耐高低温试验 High/Low Temp.	产品在-55°C~155°C环境条件下储存2H, 5次循环 Store at -55°C~155°C for 2H, cycle for 5 times	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$
工作环境温度 Operating Temperature	-55°C~225°C	/

■ 高压电阻RI80降功耗曲线图 (Derating Curve)

