

特点 FEATURES

- 简洁轻形材质结构
Compact lightweight structure.
- 高容量 (20安培接点负载)
High current contact capacity (20A Carrying Current).



用途举例 USE EXAMPLES

汽车控制盒(警报器系统、
自动门锁系统)、雨刮

接点参数 CONTACT RATING

接点形式 Contact Form	1C SPDT
额定负载(阻性) Rating Load(Resistive)	20A/14VDC
最大切换功率 Max. Switching Power	280W
最大切换电压 Max. Switching Voltage	14VDC
最大切换电流 Max. Switching Current	25A
最小切换电流/电压 Min. Switching Current/Voltage	100mA 5VDC
接点负载电流 Contact Rating Current	20A
接点材质 Contact Material	银合金 Ag Alloy

性能参数 CHARACTERISTICS

电气寿命 Electrical Life	1×10 ⁵	
机械寿命 Mechanical Life	1×10 ⁷	
绝缘阻抗 Insulation Resistance	Min. 100MΩ 500VDC	
接触电阻 Contact Resistance(Initial)	≤100mΩ (6VDC 1A)	
动作时间 Operate Time	≤10ms	
开放时间 Release Time	≤5ms	
耐压 Initial Dielectric Strength	开放接点间 between open contacts : 50/60Hz 500VAC 1min. 线圈接点间 between contacts and coil : 50/60Hz 1000VAC 1min.	
耐振动 Vibration Resistance	误动作: Functional:	10~55Hz 振幅 Amplitude 1.5mm
	耐久: Destructive:	10~55Hz 振幅 Amplitude 1.5mm
耐冲击 Shock Resistance	误动作: Functional:	10G
	耐久: Destructive:	100G
环境温度 Ambient Temperature	-40°C~+85°C (无结冰 No freezing)	
相对湿度 Relative Humidity	85% at 40°C	
单位重量 Unit Weight	约Approx.6g	

型号代码说明 ORDERING INFORMATION

964 A - 1C - 12 D S

1. **型号** Model Number
2. **接点间隙** Contact Gap
普通接点间隙型 Nil = General Contact Gap Type
宽接点间隙型 A = Wide Contact Gap Type
3. **接点形式** Contact Arrangement
1组转换 1C = 1 Form C
4. **线圈电压** Coil Voltage
5、6、9、12、24VDC
5. **线圈形式** Coil Type
直流 D=DC
6. **密封形式** Enclosure
密封型 S = Sealed Type

线圈额定值 (在20°C) COIL RATINGS (AT 20°C)

线圈形式 Coil Type	线圈额定电压 (V) Coil Nominal Voltage	线圈阻抗 ($\Omega \pm 10\%$) Coil Resistance	动作电压(V) (Max) Pick-Up Voltage	开放电压(V) (Min) Drop-Out Voltage	额定电流 (mA) Nominal Current
标准线圈 (abt. 0.6W) Standard Coils 接点间隙 Contact Gap 0.3mm	5	42	3.4	0.5	119
	6	60	4.0	0.6	100
	9	135	6.0	0.9	66.7
	12	240	8.0	1.2	50
	24	960	16.1	2.4	25
A型线圈 (abt. 0.8W) A Type Coils 接点间隙 Contact Gap 0.6mm	5	31	3.4	0.5	161
	6	45	4.0	0.6	133.4
	9	100	6.0	0.9	90
	12	180	8.0	1.2	66.7
	24	720	16.1	2.4	33.3

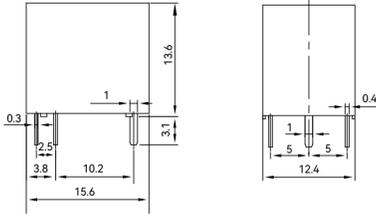
* 最大使用电压在20°C:线圈额定电压的110%
Max Continuous Voltage at 20°C:110% of Coil Normal Voltage

外部尺寸 OUTLINE DIMENSIONS

单位: 毫米 UNIT: mm

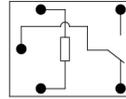
普通型 General Type

尺寸 Dimensions



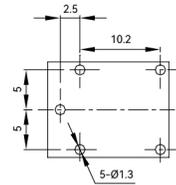
接线图 Internal Connections

(底视图 Bottom View)



孔位图 PCB Layout

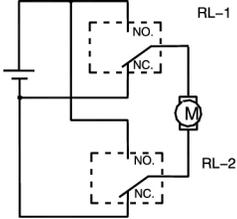
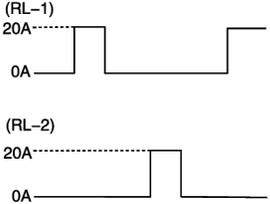
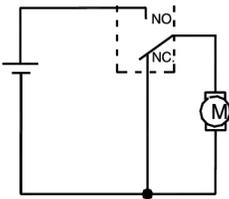
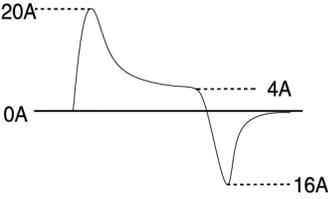
(底视图 Bottom View)



备注: 尺寸公差 $\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, 印刷电路板孔 $+0.2\text{mm}$

REMARK: Dimensions $\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.2\text{mm}$

寿命测试 (范例) LIFE TEST (EXAMPLE)

测试项目 Test Item	测试回路 Test Circuit	电流波形 Current Wave form
<p>14VDC-20A</p> <p>电机锁定</p> <p>最少 200,000次动作</p> <p>14VDC-20A motor lock</p> <p>200,000 operation Minimum</p>		
<p>14VDC-20A</p> <p>电机开放</p> <p>最少 400,000次动作</p> <p>14VDC-20A motor free</p> <p>400,000 operation Minimum</p>		

参考资料 964 REFERENCE DATA

