

ST4100 小型信号继电器 Miniature Signal Relay

特性 Features

- 5A触点切换能力 5A contact switching capability
- 高灵敏度可选 High sensitivity optional
- 小型、标准双列直插引出脚 small, standard double-in-line pin
- 外形尺寸 Outline dimension (15.7x11x12) mm



典型应用 Application

- 通适用于自动化设施、通讯设备、家用电器、无线无线电遥控控制、声控玩具应用等 Suitable for automation facilities, telecommunication equipment, household electrical appliance, wireless radio remote control, sound control toys application etc.

触点参数 Contact Data	
触点形式 Contact Arrangement	1C
触点额定 Contact Rating	3A 120VAC 3A 24VDC
最大切换电压 Max. Switching Voltage	240VAC/60VDC
最大切换电流 Max. Switching Current	5A
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max.100mΩ (1A 5VDC)
动作/释放时间 Operate Time/ Release Time	≤5ms/≤5ms
最小切换负载 Min. switching load	10mA 5VDC
电耐久性 Electrical Endurance	1*10 ⁵ ops.(最大转换频率：1800次/小时 Maximum conversion frequency: 1800 times/hour)
机械耐久性 Mechanical Endurance	1*10 ⁷ ops. .(最大转换频率：18000次/小时 Maximum conversion frequency: 18000 times/hour)
最大切换功率 Max. Switching Power	360VA/90W

线圈参数 Coil Data (标准型 Standard)

线圈电压范围 Coil Voltage Range	3~24 VDC
容许最大电压 Max. Continuous	额定电压的170% 170% of Rated Voltage
额定线圈功率 Coil Rating Power	0.45W

线圈参数 Coil Data (灵敏型 Sensitivity)

线圈电压范围 Coil Voltage Range	3~24 VDC
容许最大电压 Max. Continuous	额定电压的170% 170% of Rated Voltage
额定线圈功率 Coil Rating Power	0.36W

性能参数 Characteristics

绝缘电阻 Insulation Resistance		100MΩ Min (at 500VDC)
介质耐压 Dielectric Strength	断开触点间 Between Open Contacts	500Vrms 1min
	线圈与触点间 Between Coil and Contact	1000Vrms 1min
温度范围 Temperature Range		-40~+85℃
湿度 Ambient Operating Humidity		40%~85%RH
振动 Vibration Resistance		10Hz-55Hz, at double amplitude 1.5mm 频率 10Hz-55Hz, 双振幅 1.5mm
冲击 Shock	稳定性 Functional	10G
	强度 Destructive	50G
重量 Weight		Approx.3.5g

线圈规格 Coil Voltage Specifications (标准型 Standard)

额定电压 Nominal Coil VDC	动作电压 Must Operate VDC	释放电压 Release Coil VDC	线圈电阻 Coil Resistance Ω(±10%)
3	2.25	0.3	20
5	3.75	0.5	56
6	4.5	0.6	80
9	6.75	0.9	180
12	9.0	1.2	320
18	13.5	1.8	720
24	18.0	2.4	1280

线圈规格 Coil Voltage Specifications (灵敏型 Sensitivity)

额定电压 Nominal Coil VDC	动作电压 Must Operate VDC	释放电压 Release Coil VDC	线圈电阻 Coil Resistance Ω(±10%)
3	2.25	0.3	25
5	3.75	0.5	69
6	4.5	0.6	100
9	6.75	0.9	225
12	9.0	1.2	400
18	13.5	1.8	900
24	18.0	2.4	1600

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线圈参数 Coil Data (高灵敏型 High Sensitivity)	
线圈电压范围 Coil Voltage Range	3~24 VDC
容许最大电压 Max. Continuous	额定电压的170% 170% of Rated Voltage
额定线圈功率 Coil Rating Power	0.2W

- 注:
- a) 所有数值均为在环境温度+23℃下未预通电的线圈 All the performance data are for coils that are not pre energized at 23℃ ambient temperature.

线圈规格 Coil Voltage Specifications (高灵敏型 High Sensitivity)			
额定电压 Nominal Coil	动作电压 Must Operate	释放电压 Release Coil	线圈电阻 Coil Resistance
VDC	VDC	VDC	Ω(±10%)
3	2.25	0.3	45
5	3.75	0.5	125
6	4.5	0.6	180
9	6.75	0.9	405
12	9	1.2	720
18	13.5	1.8	1620
24	18	2.4	2880

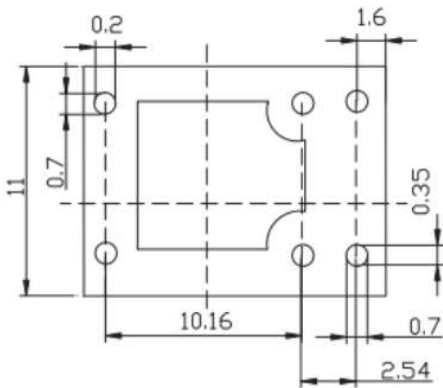
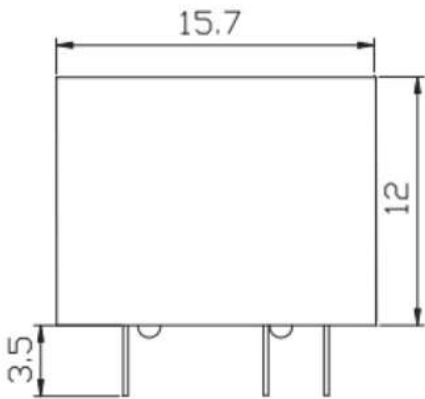
- 注:
- a) 以上值为初始值 All the performance data are initial values.
- b) 线圈电阻是在线圈温度23℃，公差为±10% Coil resistance is tested at 23℃ ambient temperature, ±10% tolerance.

■ 型号命名标准 Model Number Legend

	ST4100	-1C	-12	L	S	,XXX
基本型号 Basic Type:	ST4100					
触点结构 Contact Arrangement:	1C: 1组转换 1 Form C					
线圈电压 Coil voltage:	3, 5, 6, 9, 12, 18, 24VDC					
线圈功耗 Coil Power:	Blank: 0.45W; L: 0.36W; SL:0.2W					
防护构造 Protective Construction:	Blank: 耐助焊剂型 Flux Tight; S: 塑料密封型 Sealed					
特殊特性 Special Characteristic:	Blank:标准型Standard; XXX: 客户特殊特性号 Customer Special Feature Number					

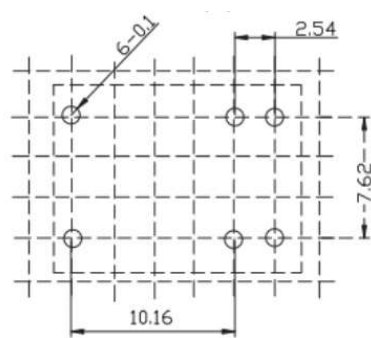
■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 外形尺寸 Outline Dimensions

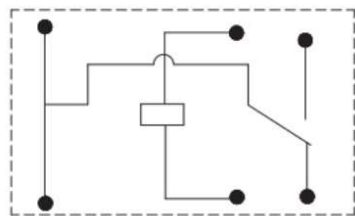


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◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View



◆ 接线图 Wiring Diagram Bottom View



注 Note:
未注尺寸公差 Unspecified tolerance : <1mm: ± 0.2 mm, 1~5 mm: ± 0.3 mm, >5mm: ± 0.5 mm ;
安装孔尺寸中未注尺寸公差为 ± 0.1 mm PC board layout dimensions hadn't specified tolerance is ± 0.1 mm.

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