



### Features

- Microminiature relay.
- High sensitive: 200mW.
- High reliability gilt contact.
- Sealed type construction.

### Safety Approval

UL, C-UL File No.: E179745

CQC File No.: CQC02001002118

### Contact Capacity

Model	SYS1K
Nominal switching capacity (res. load)	3A 120VAC
Max. switching current	3A
Max. switching voltage	125VAC
Max. switching power	360VA

### Charateristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	100mΩ Max.	
Operate time (at nominal volt.)	SYS1K-D: 8msec. Max.	SYS1K-L: 10msec. Max.
Release time (at nominal volt.)	4msec. Max.	
Initial insulation resistance	100MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts: AC500V, 50/60Hz 1Min.	
	Between coil and contact: AC750V, 50/60Hz 1Min.	
Vibration resistance	Functional	10 ~ 55Hz at double amplitude of 1.5 mm
	Destructive	10 ~ 55Hz at double amplitude of 1.5 mm
Shock resistance	Functional	10G Min.
	Destructive	100G Min.
Endurance (operations)	Mechanical (at 10,800 ops./h)	10,000,000
	Electrical (at 1,800 ops./h)	100,000
Ambient temperature	-30°C ~ +70°C (no condensation)	
Unit weight	Approx. 3.7 g	

### Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current ± 10% (mA)	Coil resistance ± 10% (Ω)	Max. allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
3	120.00	25	130 % of nominal voltage	75 % of nominal voltage	5 % of nominal voltage	0.36W
5	72.00	70				
6	60.00	100				
9	40.00	225				
12	30.00	400				
24	15.00	1,600				

## Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current $\pm 10\%$ (mA)	Coil resistance $\pm 10\%$ ( $\Omega$ )	Max. allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
3	66.67	45	130 % of nominal voltage	75 % of nominal voltage	5 % of nominal voltage	0.20W
5	40.00	125				
6	33.33	180				
9	22.22	405				
12	16.67	720				
24	8.33	2,880				
3	150.00	20				0.45W
5	90.00	55				
6	75.00	80				
9	50.00	180				
12	37.50	320				
24	18.75	1,280				

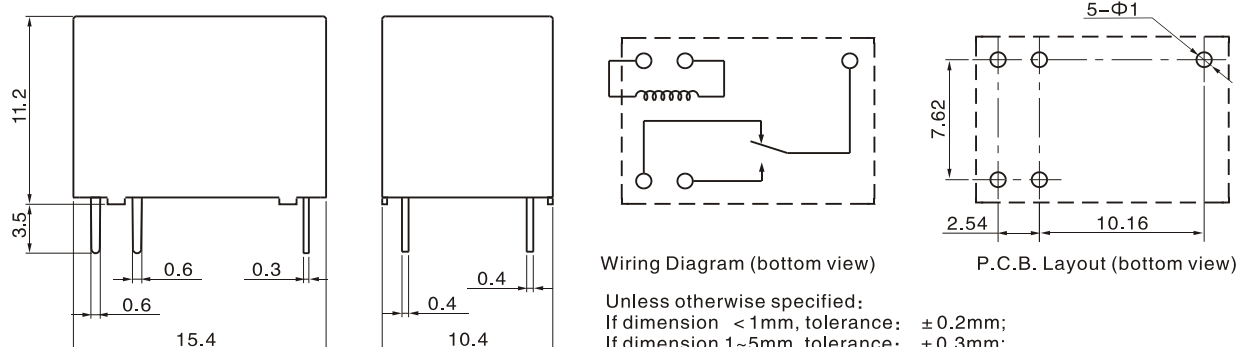
## Safety Approval Ratings

Approval	CQC	UL/CUL
File No.	CQC02001002118	E179745
Approved ratings	1 A 125VAC	3A 120VAC 3A 24VDC 1A 120VAC

## Ordering Information

Nomenclature							
SYS1K	-S	-1	12	D	M	-F	-XX
Special Parameter: Nil-Standard type, Letter or number-Special requirement							
Insulation System: Nil-Standard, B-Class B, F-Class F							
Contact Form: Nil-Form C, M-Form A							
Coil Power: D-0.36W, L-0.20W, Nil-0.45W							
Coil Voltage (VDC): 03, 05, 06, 09, 12, 24							
Number of Poles: 1-1 Pole							
Protective Construction: S-Flux proofed, SH-Sealed type washable							
Type Designation: SYS1K							

## Outline Dimensions, Wiring Diagram, P.C. Board Layout (unit: mm)



Wiring Diagram (bottom view)

P.C.B. Layout (bottom view)

Unless otherwise specified:  
 If dimension < 1mm, tolerance:  $\pm 0.2\text{mm}$ ;  
 If dimension 1~5mm, tolerance:  $\pm 0.3\text{mm}$ ;  
 If dimension > 5mm, tolerance:  $\pm 0.4\text{mm}$ .

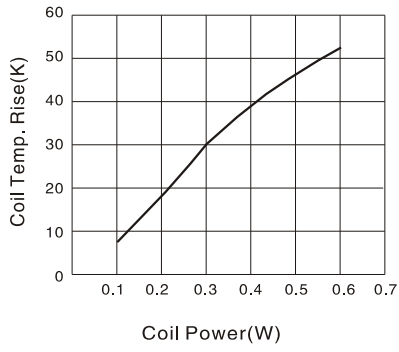
Note: 1. Extended terminal dimension is dimension before soldering.  
 2. Tolerance of P.C.B. layout:  $\pm 0.1\text{mm}$ .

## Typical Applications

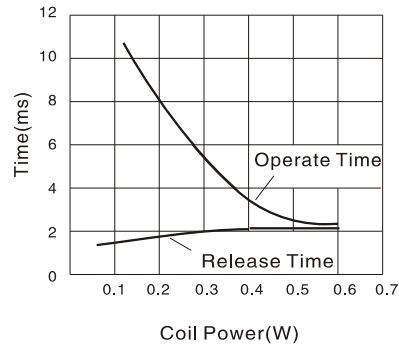
- Telecommunication equipment
- Office equipment
- Home appliances
- Audio equipment, etc.

## Characteristic Curves

Coil Temp. Rise



Operate/Release Time



Endurance Curve

