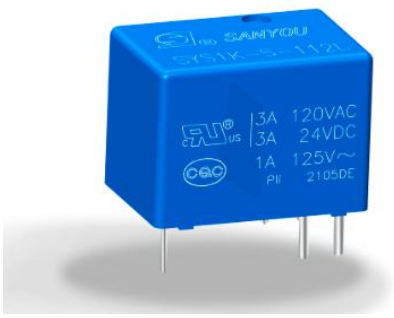
三友继电器
SANYOU RELAYS

Miniature Signal Relay SYS1K



Features

- Micro-miniature relay,High sensitive:200mW.
- High reliability gilt contact.
- Sealed type construction.

Safety certificate

UL，C-UL File No：E179745

CQC File No：CQC02001002118、CQC16002159530

Contact Data

Type	SYS1K
Rated load (Resistive load)	3A 120VAC
Max. switching current	3A
Max. switching voltage	125VAC
Max. switching power	360VA
Min. switching load	6V 1A

Characteristic Data

Contact material	Silver alloy	
Initial contact resistance	100mΩ Max.(at 1A 6VDC)	
Operate time(at rated coil voltage)	SYS1K-D：8 ms Max.(no diode)	SYS1K-L：10 ms Max.(no diode)
Release time	4 ms Max. (No diode)	
Initial insulation resistance	Min. 1,000MΩ (at 500VDC)	
Initial dielectric strength	Between open contacts： 500VAC, 50/60Hz for 1min.	
	Between coil and contact: 750VAC, 50/60Hz for 1min.	
Vibration resistance	Function	10∽55Hz at double amplitude of 1.5 mm
	Destructive	10∽55Hz at double amplitude of 1.5 mm
Shock resistance	Function	10G Min.
	Destructive	100G Min.
Endurance	Mechanical (at 10,800ops./h)	10,000,000 cycles(at room temperature)
	Electrical (at 1,800ops./h)	100,000 cycles(at room temperature)
Ambient temperature	-40℃～+70℃ (no condensation)	
Unit weight	Approx. 3.7g	

Coil Data (at 20℃)

Nominal voltage (VDC)	Nominal operating current ± 10%(mA)	coil resistance ±10%(Ω)	Max. allowable voltage	Operate voltage (Max.)	Release voltage (Min.)	Nominal operating power
3	120	25	130% of nominal voltage	75% of nominal voltage	5% of nominal voltage	Approx. 0.36W
5	72	69				
6	60	100				
9	40	225				
12	30	400				
24	15	1,600				
3	66.67	45				Approx. 0.20W
5	40	125				
6	33.33	180				
9	22.22	405				
12	16.67	720				
24	8.33	2,880				
3	150	20				Approx. 0.45W
5	90	56				
6	75	80				
9	50	180				
12	37.5	320				
24	18.75	1,280				

The data shown above are initial values. Do not apply maximum allowable voltage on coil for more than 10 minutes to avoid overheating of the coil.

Safety Certificate Ratings (More details of approved ratings, please refer to the safety certificates)

Certificates	CQC	UL/CUL
File No.	CQC02001002118 CQC16002159530	E179745
Approved Ratings	1A 125VAC	3A 120VAC 3A 24VDC 1A 120VAC

(1) All values unspecified are acquired at room temperature
(2) Only typical ratings are listed above and the endurance differ in each load. Other specific load information are available upon request.
(3) For sealed type testing, please open the ventilation hole in the case before test.

Ordering Information

Nomenclature

SYS1K	-S	-1	12	D	M	-F	-XX	

Special Parameter： Nil-Standard type，
Letters or Numbers，Special requirements

Insulation System： Nil - Standard，B - Class B，F - Class F

Contact Arrangement：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

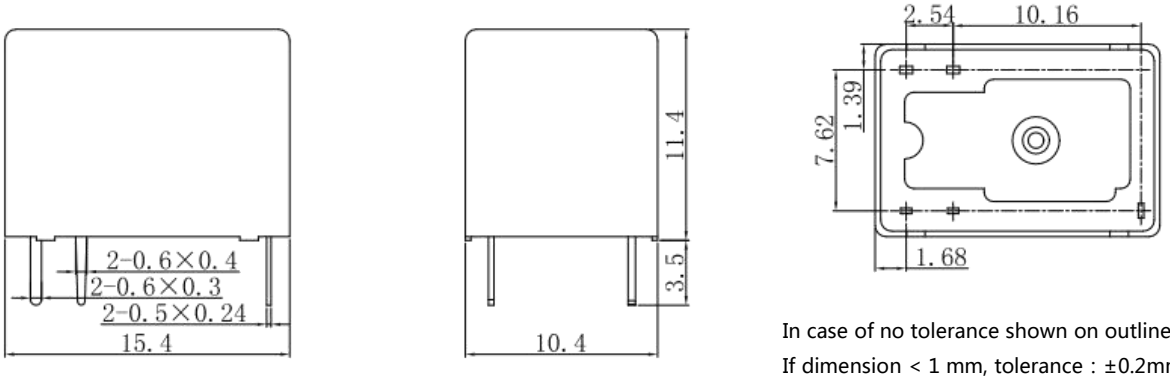
Number of Poles：1-1 Pole

Protective construction：S-Flux-proof
SH-Sealed type washable

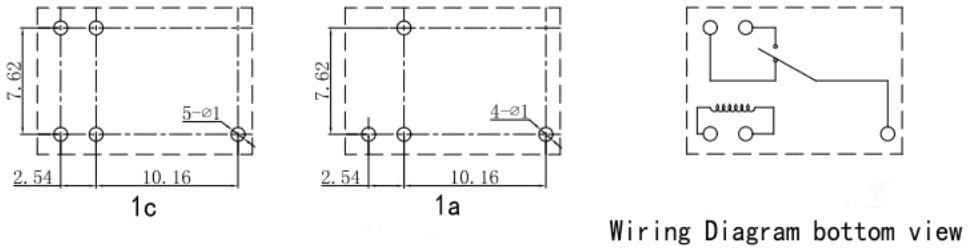
Type：SYS1K

(1) Flux-proof relays can not be used in the environment with pollutants like H_2S, SO_2,NO_2, dust, etc.
(2) Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.
(3) Customized special suffix is available after being evaluated by Sanyou.

Outline dimension, wiring diagram, PCB layout (Unit: mm)



In case of no tolerance shown on outline dimension
If dimension < 1 mm, tolerance：±0.2mm
If dimension 1~5mm, tolerance：±0.3mm
If dimension > 5mm, tolerance：±0.4mm
Note：
1.The dimension of pin is the size before tinning
2. Tolerance of PCB layout：±0.1 mm



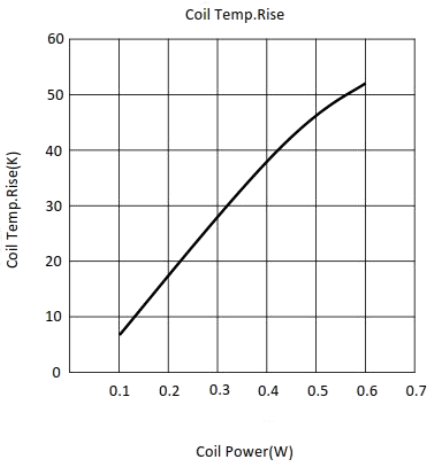
P.C.B.Layout(bottow view)

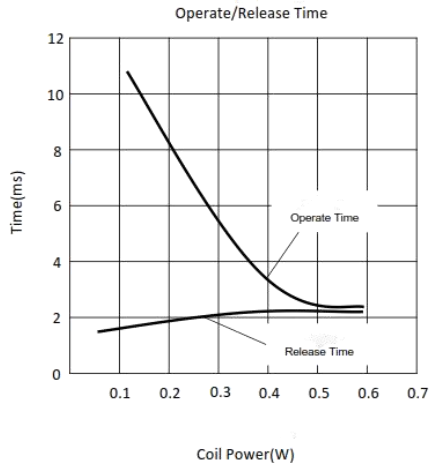
Wiring Diagram bottom view

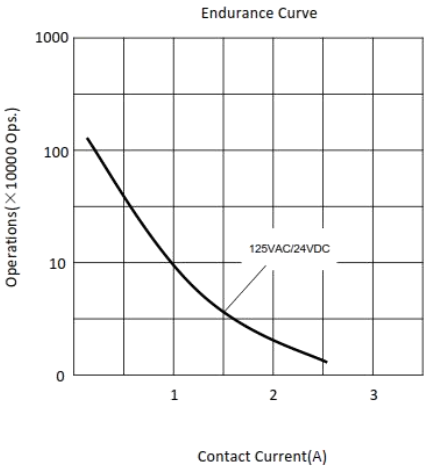
Typical Applications

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

Characteristic Curves







Disclaimer：The specification is for reference only. Specifications are subject to change without prior notice.

We could not evaluate all the performance and all the parameters for every possible applications. Thus the users should in a right position to choose suitable product for their own application. For sealed relays, after installation and cleaning, please open the ventilation hole in the case before use. If there is any query, please contact Sanyou for technical services. However it is the user's responsibility to determine which product should be used.