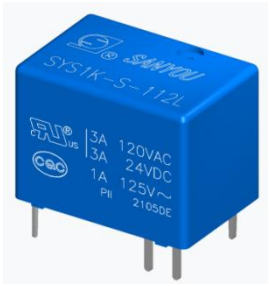
Features:

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

Typical applications:

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



Approvals

UL, c-UL (File No.)：E179745
CQC (File No.)：CQC02001002118

Contact Data

Contact arrangement	1form C(CO)
Contact resistance	100mΩ Max.(at 1A 6VDC)
Rated voltage	120VAC
Max.switching voltage	125VAC
Rated current	3A
Min. recommended contact load	1A, 6VDC
Breaking capacity max.	360VA
Contact material	AgNi
Frequency of operation	1800 ops./h
Operate/release time max.	10ms/4ms
Electrical endurance	See electrical endurance graph

Contact ratings

Type	Contact	Load	Cycles
UL 508			
SYS1K	NO	3A,120VAC	$6X10^3$
GB/T 21711.1-2023			
SYS1K	NO	3A,125VAC,70℃	$2X10^4$
Mechanical endurance			$\geq 1x10^7$

Coil Data

Coil voltage range:	5 to 24 VDC
Operative range, IEC 61810	2
Coil insulation system according UL	Class F

Coil versions, DC coil

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω（1±10%）	Rated coil powers mW
5	≤3.75	≥0.6	125	200
6	≤4.5	≥0.9	180	200
9	≤6.75	≥1.2	405	200
12	≤9	≥1.5	720	200
24	≤18	≥1.8	2880	200

Coil Data(continued)

Coil versions, DC coil

Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω（1±10%）	Rated coil powers mW
5	≤3.75	≥0.6	69	360
6	≤4.5	≥0.9	100	360
9	≤6.75	≥1.2	225	360
12	≤9	≥1.5	400	360
24	≤18	≥1.8	1600	360
5	≤3.75	≥0.6	56	450
6	≤4.5	≥0.9	80	450
9	≤6.75	≥1.2	180	450
12	≤9	≥1.5	320	450
24	≤18	≥1.8	1280	450

All figures are given for coil without pre-energization, at ambient temperature 20°C

Insulation Data

Initial dielectric strength	
between open contacts	500VAC
between contact and coil	750VAC
Clearance/Creepage	
between contact and coil（Clearance）	/
between contact and coil（Creepage）	/
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 175V

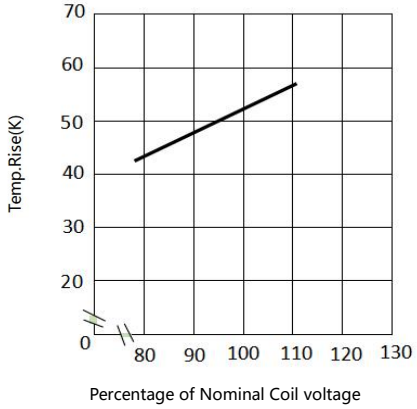
Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH

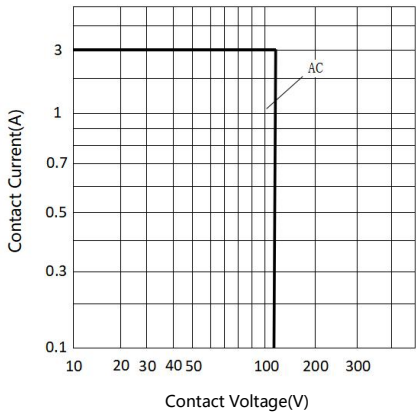
Ambient temperature	-40℃ to +70℃
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx. 3.7g
Resistance to soldering heat THT (IEC 60068-2-20)	260°C/5s
Packaging/unit	tube

Characteristic Curves

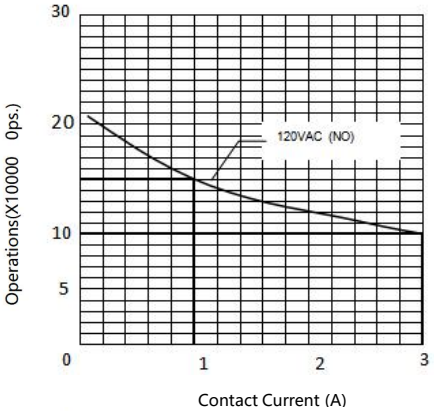
Coil Temp.Rise



Max. Switching Power(W)



Endurance Curve

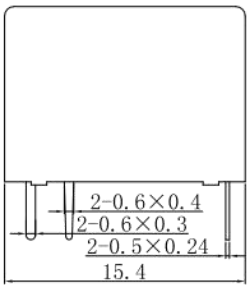


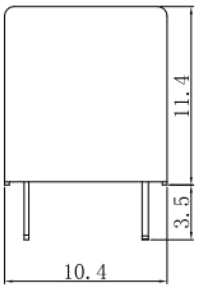
Note:

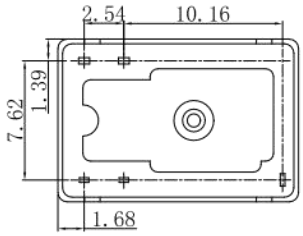
(1) Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.

(2) The above curves are for reference only, and the final result is subject to the experiment.

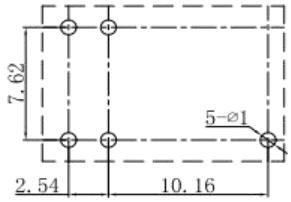
Dimensions







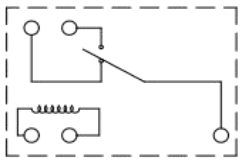
Wiring Diagrams（bottom view）



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

Notes:
1.The dimension of pin is the size before tinning
2.Tolerance of PCB layout: ±0.1 mm.

PCB Layouts（bottom view）



Product Code Structure

SYS1K	-S	-1	12	D	-F	-XX

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

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

D: Coil Power: Nil-0.45W D-0.36W L-0.20W

12: Coil Voltage (VDC): 03, 05, 06, 09, 12, 24

-1: Number of Poles: 1-1 Pole

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

SYS1K: 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.

Examples of Ordering Codes

SYS1K-S-112L relay SYS1K, Flux-proof, rated DC voltage 12V, coil power 0.2W, 1CO, and contact material AgNi.

Disclaimer