

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, CQC16002159530

Contact Data

| | |
|-------------------------------|--------------------------------|
| Contact arrangement | 1form C(CO) |
| 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 | | | ≥1x10 ⁷ |

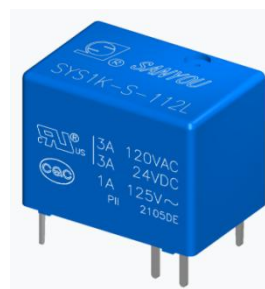
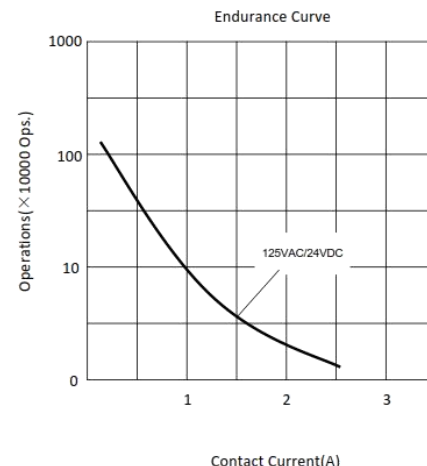
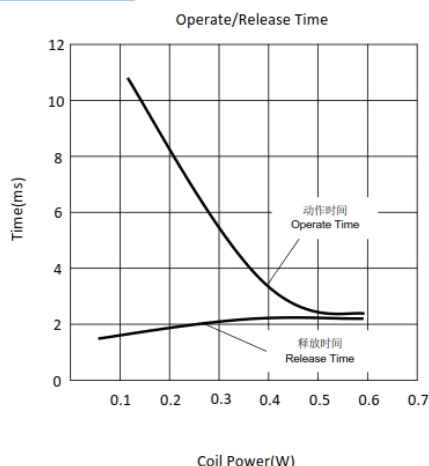
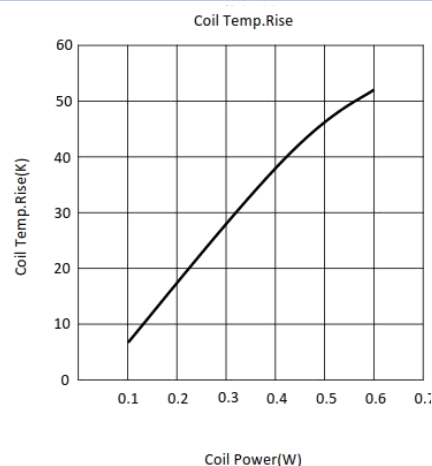
Coil Data

| | |
|-------------------------------------|------------|
| Coil voltage range: | 3 to 24VDC |
| Operative range, IEC 61810 | 2 |
| Coil insulation system according UL | Class B/F |

Coil versions, DC coil

| Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω ($\pm 10\%$) | 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 |

Characteristic Curves



Coil Data(continued)

| | | | | |
|----|-------|------|------|-----|
| 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℃

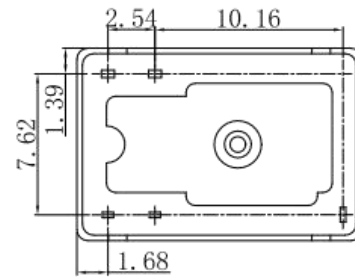
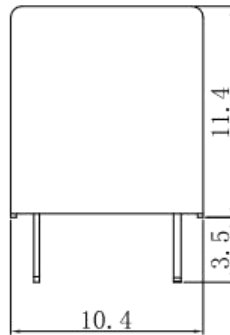
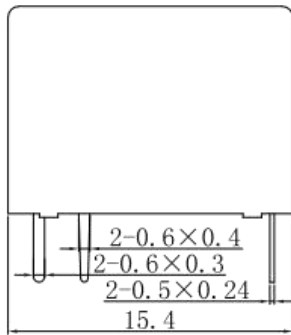
Insulation Data

| | |
|--|----------|
| 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℃/5s |
| Packaging/unit | tube |

Dimensions



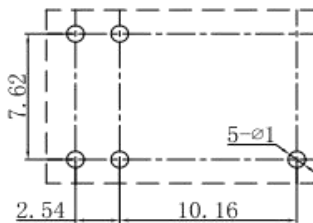
In case of no tolerance shown on outline dimension

If dimension < 1 mm, tolerance: $\pm 0.2\text{mm}$

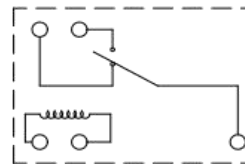
If dimension 1~5mm, tolerance: $\pm 0.3\text{mm}$

If dimension > 5mm, tolerance: $\pm 0.4\text{mm}$

Wiring Diagrams (bottom view)



PCB Layouts (bottom view)



Notes:

1.The dimension of pin is the size before tinning

2.Tolerance of PCB layout: $\pm 0.1\text{ mm}$.

Product Code Structure

SYS1K -S -1 12 D -F -XX

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

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

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

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.

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

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.