

Features:

- Switching Capability:10A.
- Small size,15.7mm high,10.1mm wide
- Creepage distance between coil and contacts $\geq$ 8.0mm,IP/OP 5kV.

Typical Applications:

- Home appliances.
- Heating control.
- Timers.
- Interface technology.
- Temperature control.

Approvals

UL, c-UL (File No.): E190598
TUV (File No.): R50662384
VDE (File No.): 40046848
CQC (File No.): CQC17002172132

Contact Data

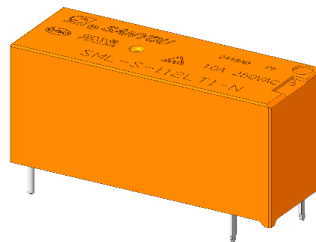
Contact arrangement	1form C(CO)or1form A(NO)
Rated voltage	250VAC
Max.switching voltage	250VAC
Rated current	10A
Min.recommended contact load	1A,6VDC
Breaking capacity max	2500VA
Contact material	AgSnO ₂
Frequency of operation	360 ops./h
Operate/Release time max	10ms/8ms
Electrical endurance	See electrical endurance graph

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
SML	A/C(NO)	10A,250VAC,cos $\phi=1.85^{\circ}\text{C}$	1X10 ⁵
UL 60947-4-1			
SML	A/C(NO)	10A,250VAC,cos $\phi=1.85^{\circ}\text{C}$	1X10 ⁵
GB/T 21711.1-2023 ⁴			
SML	A/C(NO)	10A,250VAC,85 $^{\circ}\text{C}$	2X10 ⁴
EN 61810-1			
SML	A/C(NO)	10A,250VAC,cos $\phi=1.85^{\circ}\text{C}$	6X10 ⁴
Mechanical endurance			$\geq 1 \times 10^7$

Coil Data

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



Coil Data(continued)

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	≥ 0.5	113	220
12	≤ 9	≥ 1.2	620	230
24	≤ 18	≥ 2.4	2350	250

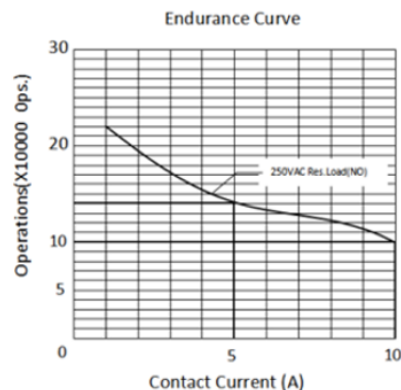
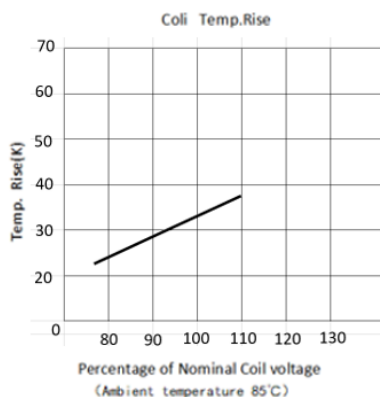
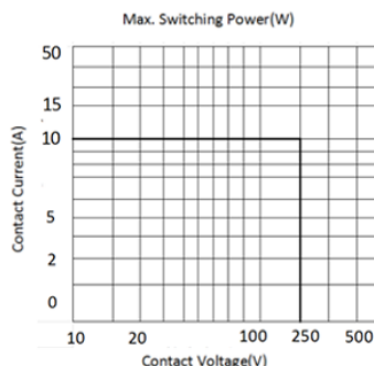
All figures are given for coil without pre-energization, at ambient temperature 20 $^{\circ}\text{C}$

Insulation Data

Initial dielectric strength	
between open contacts	1000VAC
between contact and coil	5000VAC
Clearance/Creepage	
between contact and coil (Clearance)	$\geq 8.0\text{mm}(\text{actual})$
between contact and coil (Creepage)	$\geq 8.0\text{mm}(\text{actual})$
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 175V/PTI250

Other Data

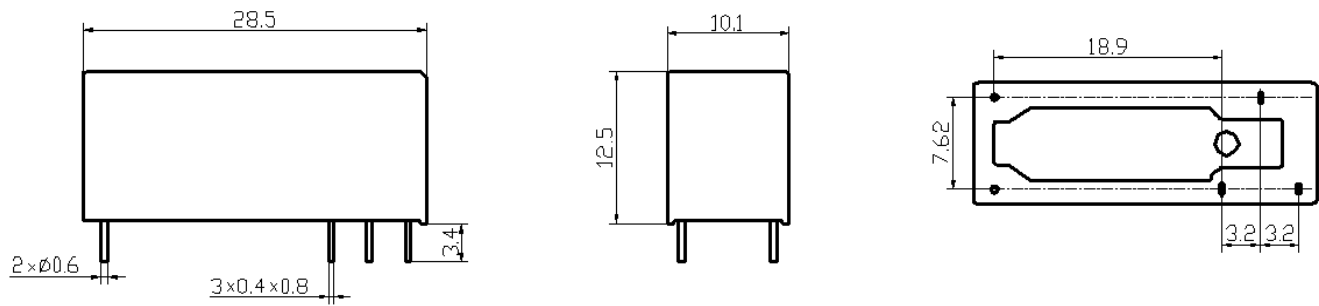
Material compliance: EU RoHS/ELV, China RoHS, REACH	
Ambient temperature	-40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$,
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - Sealed type washable
Weight	Approx.8.0g
Resistance to soldering heat THT (IEC 60068-2-20)	260 $^{\circ}\text{C}/5\text{s}$
Packaging/unit	tray



Note:

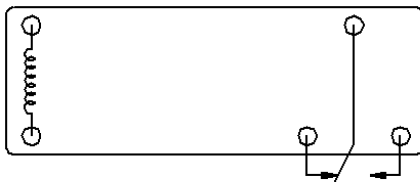
- (1)Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.
- (2)The above curves are for reference only, and the final result is subject to the experiment.

Dimensions

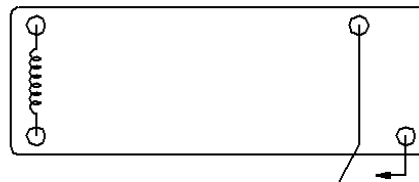


(bottom view)

Wiring Diagrams (bottom view)

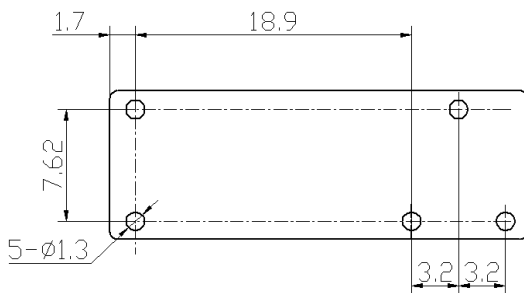


1C

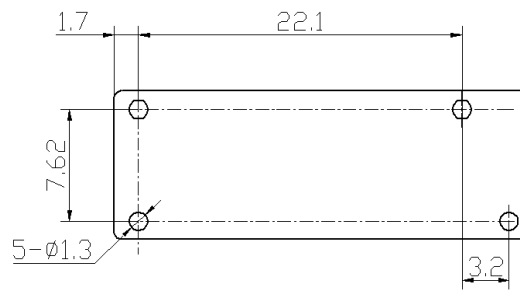


1A

PCB Layouts (bottom view)



1C



1A

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: $\pm 0.4\text{mm}$

Notes:

- 1.The dimension of pin is the size before tinning
- 2.Tolerance of PCB layout: $\pm 0.1\text{ mm}$.

Product Code Structure

SML	-S	-1	12	L	M	T	1	-F	-XX	
										Special Parameter :
										N-New type
										Nil-Standard type
										Letter or number-Special requirement
										Insulation System:
										Nil-Standard
										F - Class F
										Contact Material:
										1-AgSnO ₂
										Version:
										T-Single pinning
										Contact Arrangement:
										Nil-Form C
										M-Form A
										Coil Power:
										L-0.22 ~ 0.25W
										Rated Coil Voltage(VDC):
										05, 12, 24
										Number of Poles:
										1-1Pole
										Protective Construction
										S - Flux-proof SH- Sealed type washable
										Type: SML

- (1) Flux-proof relays can not be used in the environment with pollutants like H₂S, SO₂,NO₂, 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

SML-S-112LMT1 relay SML , Flux-proof , rated DC voltage 12V ,coil power 0.23W,1NO,and contact material AgSnO₂.

SML-S-112LT1 relay SML, Flux-proof , rated DC voltage 12V ,coil power 0.23W,1CO,and contact material AgSnO₂.

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.