

## Features

- 16A high switching capacity
- Small size and 15.7mm high
- 10mm spacing, 5KV dielectric between coil and contact
- Withstand surge voltage of 10KV
- Compliance with IEC60335-1 GWIF850°C/GWIT775°C CTI>=250V
- Ambient temperature up to: -40°C~+105°C

## Safety Approval

UL, C-UL File No.: E190598

VDE File No.: 40031353

## Contact Capacity

Model	SM - P
Nominal switching capacity (res. load)	16A 250VAC
Max. switching current	20A
Max. switching voltage	277VAC
Max. switching power	5,440VA

## Characteristic Data

Contact material	Silver alloy	
Initial contact resistance	100mΩ Max.	
Operate time (at nominal volt.)	15msec. Max.	
Release time (at nominal volt.)	10msec. Max.	
Initial insulation resistance	100MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts: AC1,000V, 50/60Hz 1Min.	
	Between coil and contact: AC5,000V, 50/60Hz 1Min.	
	Between contact sets: AC2,500V, 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 (at10,800 ops./h)	10,000,000
	Electrical (at 360 ps./h)	100,000
Ambient temperature	-40°C~+105°C(no condensation)	
Unit weight	Approx. 13.5 g	

## Coil Data(at 20°C)

Normal Voltage (VDC)	Normal operating current ±10%(mA)	Coil resistance ±10%(Ω)	Max. allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
5	81.00	63	150 % of nominal voltage	70 % of nominal voltage	10 % of nominal voltage	Approx. 0.4W
6	67.00	90				
9	45.00	203				
12	33.00	360				
15	26.00	562				
18	22.00	810				
24	17.00	1440				
48	8.00	5760				
60	6.70	8570				
110	3.60	28800				

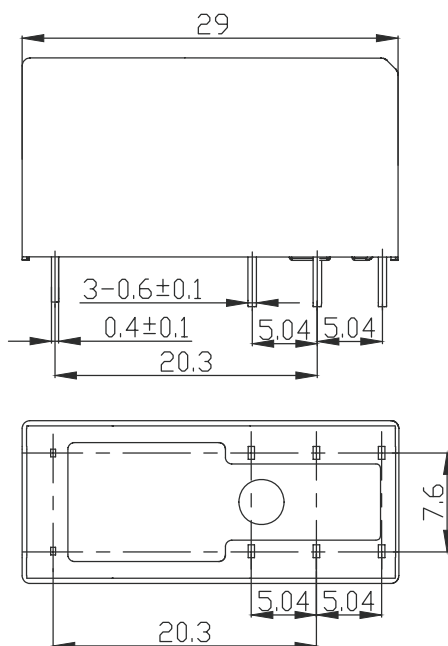
### Safety Approval Ratings

Approval	VDE	UL
File No.	40031353	E190598
Approved ratings	16A 250VAC 10A 250VAC	16A 250VAC, Resistive & G.P. 20A 277VAC, Resistive & G.P. 1HP, 480/240VAC 1/2HP, 120VAC 10 FLA/60 LRA, 240VAC Pilot Duty: A300 360VA, 120 VAC

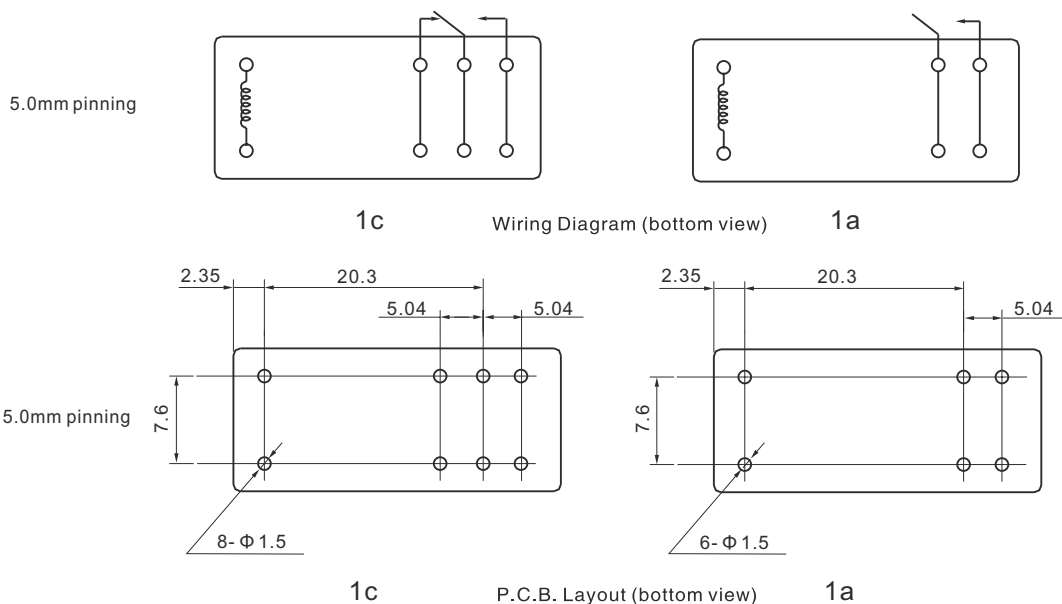
### Ordering Information

Nomenclature	
SM - S - 1 12 D M P 1 - F - XX	Special Parameter: Nil-Standard type, Letter or number-Special requirement
	Insulation System: Nil-Standard, B-Class B, F-Class F
	Contact Material : Nil-AgNi, 1-AgSnO2
	P-SM1P, 16A 105°C at 5.0mm pinning
	Contact Form: Nil-Form C, M-Form A, Form B
	Coil Power: D-0.4W
	Coil Voltage(VDC): 05,06,09,12,15,18,24,48,60,110
	Number of Poles: 1-1 Pole,
	Protective Construction: S-Flux proofed SH-Sealed type washable
	Type Designation: SM

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



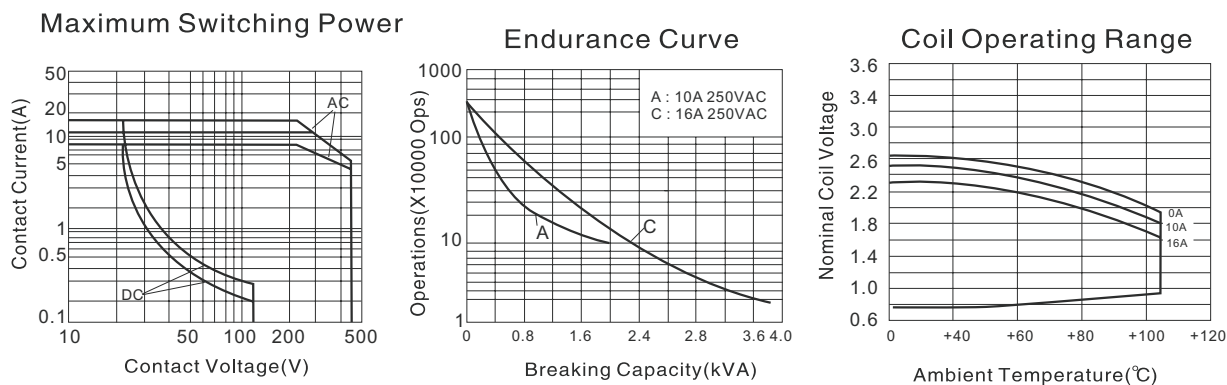
Unless otherwise specified:  
 If dimension < 1mm, tolerance: ± 0.2mm;  
 If dimension 1~5mm, tolerance: ± 0.3mm;  
 If dimension > 5mm, tolerance: ± 0.4mm.  
 Note: 1. Extended terminal dimension is dimension before soldering.  
 2. Tolerance of P.C.B. layout: ± 0.1mm.



## Typical Applications

- Home appliances, washing machine, air conditioner, microwave oven, audio equipment, monitor, industrial control equipment, instrument, etc.

## Characteristic Curves



### Disclaimer:

This datasheet is the customers' reference. All the specification are subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should in a right position to choose the suitable product for their own application. If there is any query, please contact Sanyou for the technical service. However it is the user's responsibility to determine which product should be used only.