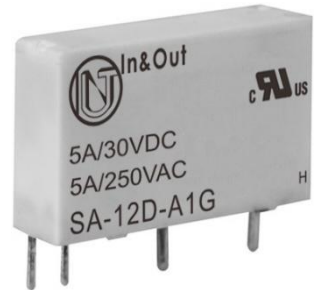


● Features

- 5A switching capability
- 3kV dielectric strength (between coil and contacts)
- Slim size (width 5mm, height 12.5mm)
- High sensitive: Min. 120Mw
- Sockets available
- UL insulation system: Class F available
- Environmental friendly product (RoHS compliant)
- Dimensions: 20.0 x 5.0 x 12.5 mm



● Application

- Smart Home Application / Home Appliance / Temperature Control / Security System / Anti-Theft System / Automation & Industrial Control / Meter, etc.

● Contact Data

Contact Arrangement	1A
Contact Material	Ag Alloy
Contact Rating	5A 250VAC, 5A 30VDC
Max. Switching Power	1250VA / 150W
Max. Switching Voltage	250VAC / 30VDC
Max. Switching Current	5A
Contact Resistance	≤ 100mΩ (6VDC 1A)
Electrical Endurance	1x10 ⁵
Mechanical Endurance	2x10 ⁷

- Coil Parameter (at 23°C)

Coil Voltage (VDC)		Coil Resistance ($\Omega \pm 10\%$)	Pickup Voltage(max) (VDC)	Release Voltage(min) (VDC)	Coil Power Consumption (W)
Rated	Max.				
5	6.0	208	3.50	0.25	0.12
6	7.2	300	4.20	0.30	
9	10.8	675	6.30	0.45	
12	14.4	1200	8.40	0.60	
18	21.6	2700(1 \pm 15%)	12.6	0.90	
24	28.8	3200(1 \pm 15%)	16.8	1.20	0.18

- Operation Condition

Insulation Resistance		1000M Ω min (at 500VDC)
Dielectric Strength	Between Contacts	1000VAC 1min
	Between Contact and Coil	3000VAC 1min
Shock Resistance	Functional	98m/s ²
	Endurance	980m/s ²
Vibration Resistance		10~55Hz double amplitude 1.5mm
Ambient Temperature		-40 ~ +85°C
Operate Time		\leq 10ms
Release Time		\leq 5ms
Relative Humidity		5%~85%
Weight		Approx. 3g

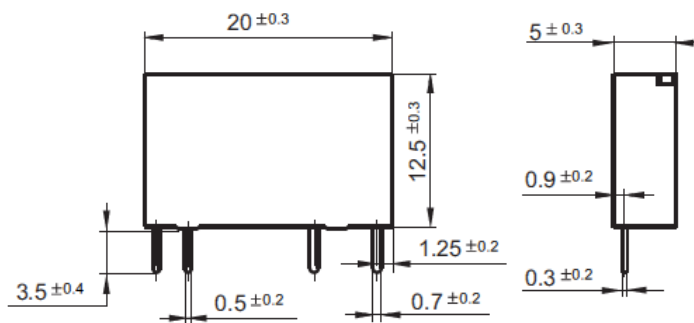
● Ordering Information

	SA	-12D	-A	1	F	1	(XXX)
Model	SA: Standard 5.08mm SAS: 7.62mm						
Coil Voltage	5, 6, 9, 12, 18, 24 VDC						
Contact Arrangement	A: 1 Form A						
Contact Version	1: Single contact 2: Bifurcated contact						
Contact Material	Nil: AgSnO ₂ (Only for single contact) F: AgNi						
Contact Plating	1: Gold plated Nil: No gold plated(only for single contact)						
Special Code	Nil: Standard XXX: Customer special requirement						

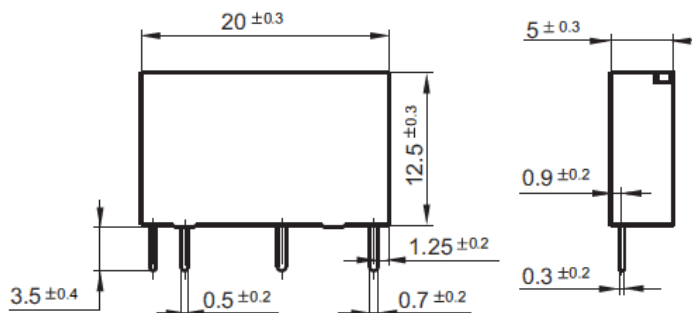
● Dimensions (UNIT: mm)

Outline Dimensions

SA type



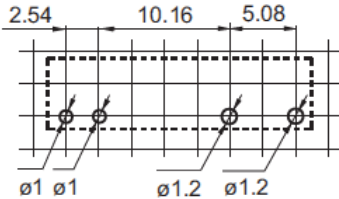
SAS type



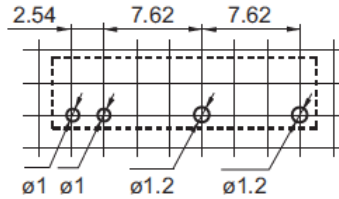
● Dimensions (UNIT: mm)

Mounting (Bottom views)

SA type



SAS type



Wiring Diagram (Bottom views)

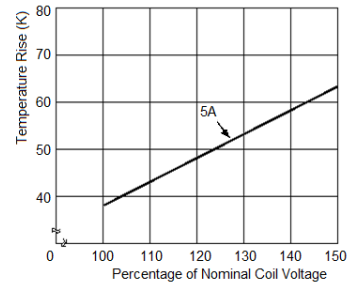
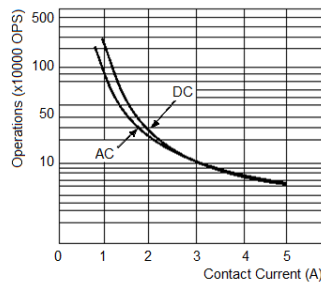
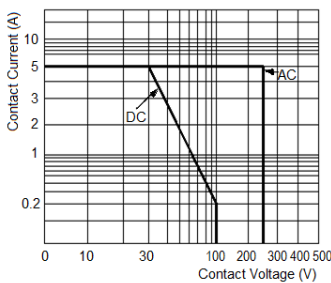


● Engineering Data

Maximum Switching Power

Endurance Curve

Coil Temperature Rise



Test conditions:
Single contact type: AgNi,
Resistive load, 250VAC /
30VDC, Room temp., 1s on 9s
off

Test conditions:
5A 85°C
(Typical curve of 24VDC
standard type)

Remark: 1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $>1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $>5\text{mm}$, tolerance should be $\pm 0.5\text{mm}$.

2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications subject to



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

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