Features

- 16A switching capability
- Low height: 15.7 mm
- 5kV dielectric strength (between coil and contacts)
- Contact gap Min. 0.75mm, with optional specifications
- Plastic sealed and flux proofed types available
- UL insulation system: Class F available
- Environmental friendly product (RoHS compliant)
- Dimensions: 29.0 x 12.7 x 15.7 mm

Certificate

- UL E197803, TUV 50626912, CQC 11002061906

Application

- Household Electrical Appliance / Intelligent Home Solution / Automation System / Meter / Photovoltaic Inverter / UPS application, etc.

Contact Data

Contact Arrangement	1A, 1B, 1C	2A, 2B, 2C
Contact Material	Ag Alloy	
Contact Rating	12A,16A 250VAC (resistive) 1/2HP 250VAC / 125VAC	8A 250VAC (resistive)
Max. Switching Power	12A:3000VA 16A:4000VA	2000VA
Max. Switching Voltage	440VAC	
Max. Switching Current	12A / 16A	8A
Contact Resistance	≦100mΩ (1A 6VDC)	
Electrical Endurance	1 Form A, 16A type: 1 x 10^5 OPS (16A 250VAC, Resistive load, Room temp., 1s on 9s off) 2 Form A, 8A type: 5 x 10^4 OPS (8A 250VAC, Resistive load, Room temp., 1s on 9s off)	
Mechanical Endurance	1x10^7	

Coil Parameter (at 23℃)

Coil voltage (VDC)		Coil Resistance (Ω±10%)	Pickup Voltage(max) (VDC)	Release Voltage(min) (VDC)	Coil Power Consumption (W)
Rated	Max.				
5	7.5	62	3.75	0.5	Approx. 0.40
9	13.5	202	6.75	0.9	
12	18.0	360	9.00	1.2	
18	27.0	810	13.5	1.8	
24	36.0	1440	18.0	2.4	
48	72.0	5760(1±15%)	36.0	4.8	
60	90.0	7500(1±15%)	45.0	6.0	
110	165.0	25200(1±15%)	82.5	11.0	

Notes: 1) The data shown above are initial values.
2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period ot time.
3) For products with rated voltage ≧48V, measures should be taken to prevent coil overvoltage in order to protect coil in test and application (eg. Connect diodes in parallel).

Operation Condition

Insulation Resistance		1000MΩ min (at 500VDC)
Dielectric Strength	Between Open Contacts	1000VAC 1min
	Between Coil and Contact	5000VAC 1min
	Between Contact Sets	2500VAC 1min
Surge Voltage	Between Coil and Contact	10kV (1.2 / 50μs)
Shock Resistance	Functional	98m/s^2
	Endurance	980m/s^2
Vibration Resistance		10Hz to 150Hz 10g/5g
Ambient Temperature		-40 ~ +85℃
Operate Time		≦15ms
Release Time		≦8ms
Relative Humidity		5%~85%
Weight		Approx. 13.5g

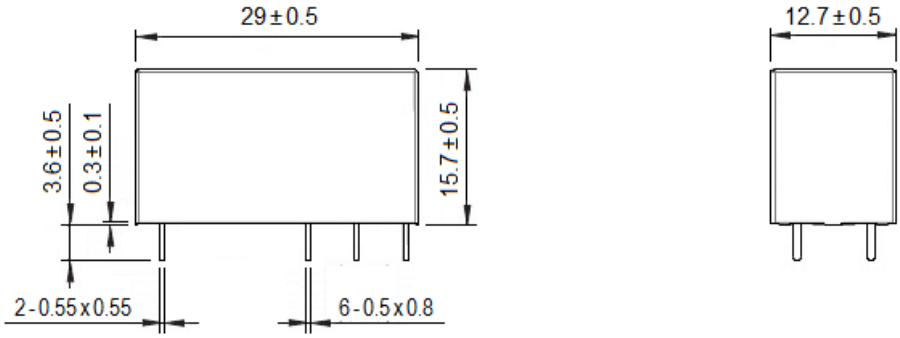
Ordering Information

	GN	**S**	**-12D**	**-A**	**16**	**-S**	**(XXX)**
Model							
Version(See Wiring Diagram Below)	**Nil**: 5.0mm **S**: 3.5mm						
Coil Voltage	5, 9, 12, 18, 24, 48, 60, 110VDC						
Contact Arrangement	**A**: 1 Form A **B**: 1 Form B **C**: 1 Form C **2A**: 2 Form A **2B**: 2 Form B **2C**: 2 Form C						
Contact Current	**8**: 8A (8A only for 2 pole 5mm) **12**: 12A (only for 1 pole 3.5mm or 1 pole 5mm, single pinning) **16**: 16A (only for 1 pole 5mm, double pinning)						
Construction	**Nil**: Flux tight **S**: Sealed						
Special Code	**Nil**: Standard **XXX**: Customer special requirement						

Notes: The customer special requirement express as special code after evaluating by In&Out e.g. (2KV) indicates that the contact gap of the product is ≧0.75mm, plastic sealed type (only for GN 2 form A).

Dimensions (UNIT: mm)

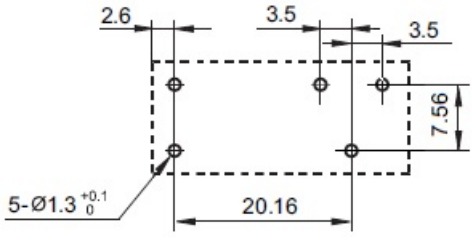
Outline Dimensions



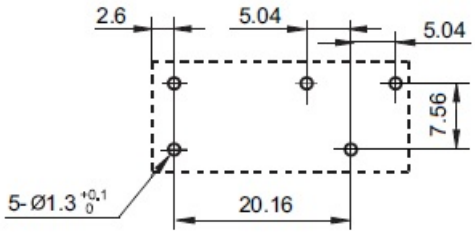
- Dimensions (UNIT: mm)

Mounting (Bottom views)

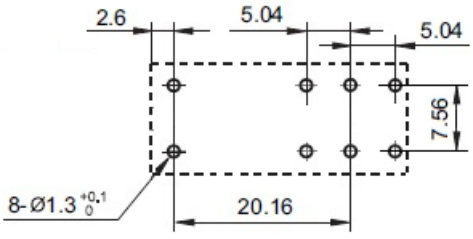
GNS 3.5mm 1Pole 12A



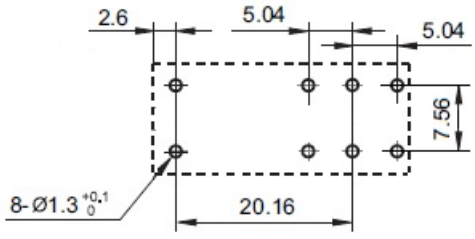
GN 5mm 1Pole 12A



GN 5mm 1Pole 16A



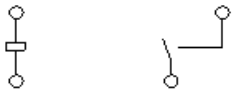
GN 5mm 2Pole 8A



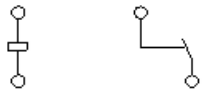
Wiring Diagram (Bottom views)

GNS 3.5mm / GN 5mm, 1Pole 12A

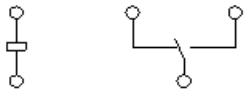
1 Form A



1 Form B

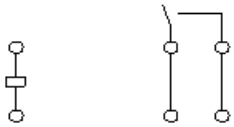


1 Form C

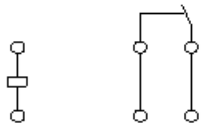


GN 5mm 1Pole 16A

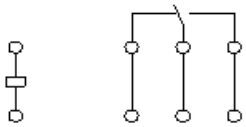
1 Form A



1 Form B



1 Form C

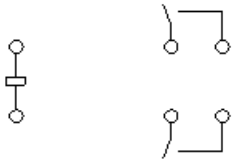


Dimensions (UNIT: mm)

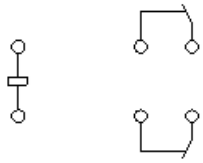
Wiring Diagram (Bottom views)

GN 5mm 2Pole 8A

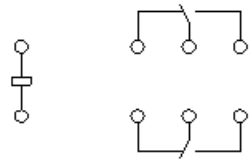
2 Form A



2 Form B



2 Form C



Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≦1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≦5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.5mm.

2) The tolerance without indicating for PCB layout is always ±0.1mm.