

● Features

- AC voltage coil type
- 16A switching capability
- 1 & 2 pole configurations
- Low height: 15.7 mm
- Creepage distance: 10mm
- 5kV dielectric strength (between coil and contacts)
- 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



● Application

- Household Electrical Appliance / Automation System / Electrical Equipment / Instrument / Meter / Telecommunication Facilities / Remote Control Facilities etc.

● Contact Data

Contact Arrangement	1A, 1B, 1C	2A, 2B, 2C
Contact Material	Ag Alloy	
Contact Rating	12A, 16A 250VAC (resistive)	8A 250VAC (resistive)
Max. Switching Power	12A:3000VA 16A:4000VA	2000VA
Max. Switching Voltage	440VAC	
Max. Switching Current	12A / 16A	8A
Contact Resistance	$\leq 100\text{m}\Omega$ (at 1A 6VDC)	
Electrical Endurance	5×10^4 (1 Form A type, 16A 250VAC, Resistive load, Room temp., 1s on 9s off) $(2 \text{ Form A type, } 8\text{A } 250\text{VAC, Resistive load, Room temp., 1s on 9s off})$	
Mechanical Endurance	1×10^5	

- **Coil Parameter (at 23°C)**

Standard Type

Coil Voltage (VAC)	Coil Current (mA)	Coil Resistance ($\Omega \pm 10\%$)	Pickup Voltage(max) (VAC)	Release Voltage(min) (VAC)	Coil Power Consumption (VA)
24	31.6	350	18.0	3.6	0.75
115	6.6	8100(1±15%)	86.3	17.3	
230	3.2	32500(1±15%)	172.5	34.5	

- **Operation Condition**

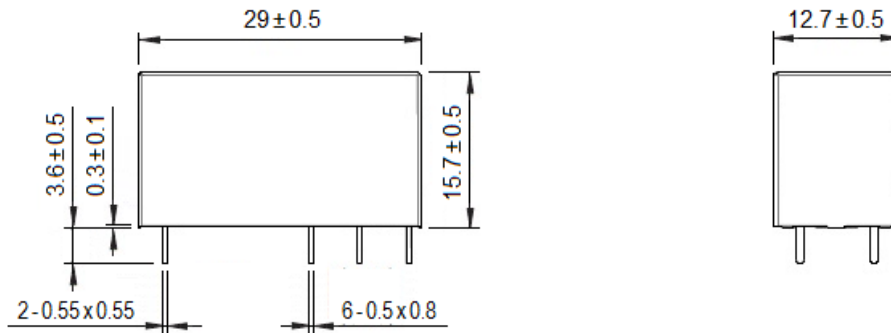
Insulation Resistance		1000M Ω min (at 500VDC)
Dielectric Strength	Between Coil and Contacts	5000VAC 1min
	Between Open Contacts	1000VAC 1min
	Between Contact Sets	2500VAC 1min
Shock Resistance	Functional	98m/s ²
	Endurance	980m/s ²
Temperature Rise (at nomi. volt.)		$\leq 85K$
Vibration Resistance		10Hz to 150Hz 10g / 5g
Ambient Temperature		-40 ~ +70°C
Relative Humidity		5%~85%
Weight		Approx. 13.5g

- Ordering Information

	GNA	S	-115A	-A	16	-S	(XXX)
Model							
Version (See Wiring Diagram Below)	Nil: 5.0mm S: 3.5mm						
Coil Voltage	24, 115, 230VAC						
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				
	8: 8A (8A only for 2 pole 5mm)						
Contact Current	12: 12A (only for 1 pole 3.5mm or 1 pole 5mm)						
	16: 16A (only for 1 pole 5mm, double pinning)						
Construction	Nil: Flux tight S: Sealed						
Special Code	Nil: Standard		XXX: Customer special requirement				

- Dimensions (UNIT: mm)

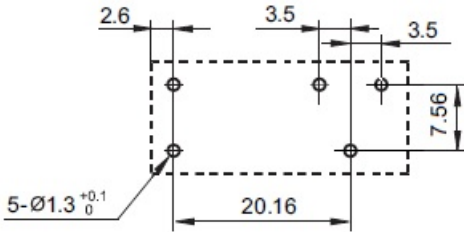
Outline Dimensions



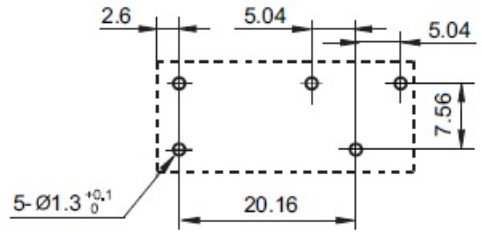
● **Dimensions (UNIT: mm)**

Mounting (Bottom views)

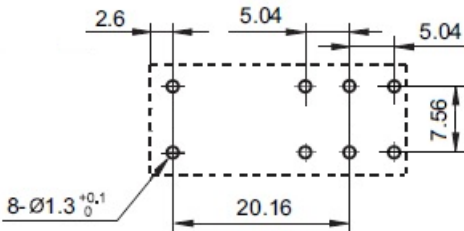
GNAS 3.5mm 1Pole 12A



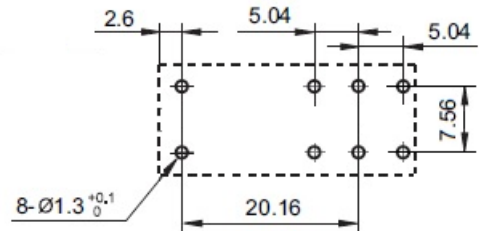
GNA 5mm 1Pole 12A



GNA 5mm 1Pole 16A



GNA 5mm 2Pole 8A



Wiring Diagram (Bottom views)

GNAS 3.5mm / GNA 5mm, 1Pole 12A

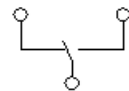
1 Form A



1 Form B

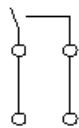
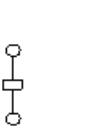


1 Form C

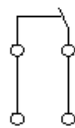
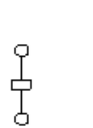


GNA 5mm 1Pole 16A

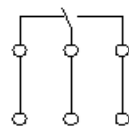
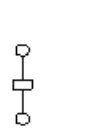
1 Form A



1 Form B



1 Form C

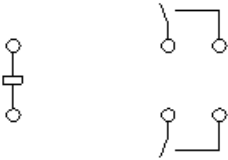


- **Dimensions (UNIT: mm)**

Wiring Diagram (Bottom views)

GNA 5mm 2Pole 8A

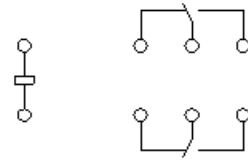
2 Form A



2 Form B

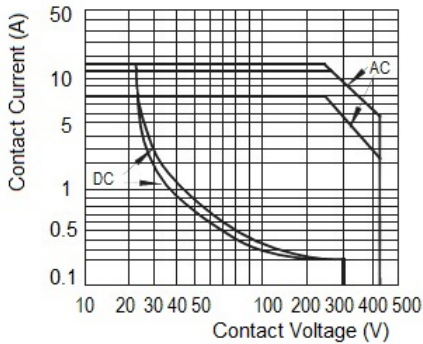


2 Form C

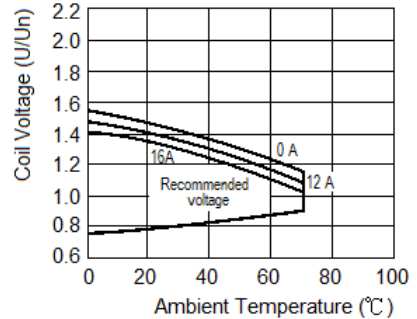


- **Engineering Data**

Maximum Switching Power



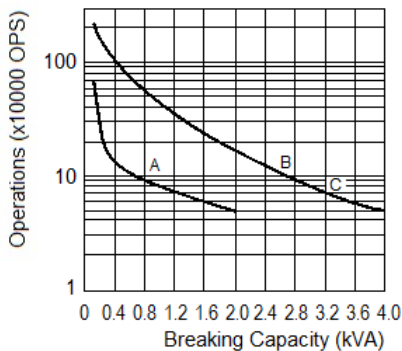
Coil Operating Range (AC) *



Notes:

*The use of a relay with an energizing voltage other than the rated coil voltage may lead to reduced electrical life. An energizing voltage over the above range may damage the insulation of relay

Endurance Curve



Notes:

- 1) Curve A: 2 Form A type (2Pole, 8A)
Curve B: 1 Form A type (1 pole, 12A)
Curve C: 1 Form A type (1 pole, 16A)
- 2) Test conditions:
NO, 250VAC, Resistive load, Flux proofed, Room temp., 1s on 9s off.

- 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.

In & Out Electronic Corporation. All rights of IOEC are reserved.