

## ● Features

- 15A switching capability
- 1 Form A and 1 Form C configurations
- Subminiature, standard PCB layout
- Plastic sealed and flux proofed types available
- Environmental friendly product (RoHS compliant)
- Dimensions: 19.0 x 15.2 x 15.5 mm



## ● Application

- Smart Home Solution / Home Appliance / Temperature Control / Industrial Control / Security System / Anti-Theft System, etc.

## ● Contact Data

Contact Arrangement	1A, 1C
Contact Material	Ag Alloy
Contact Rating	10A 250VAC / 30VDC TV-5 15A125VAC
Max. Switching Power	2500VA / 300W
Max. Switching Voltage	250VAC / 30VDC
Max. Switching Current	15A
Contact Resistance	$\leq 100\text{m}\Omega$
Electrical Endurance	$1 \times 10^5$
Mechanical Endurance	$1 \times 10^7$

## ● 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.				
3	3.9	25	2.25	0.30	0.36
5	6.5	70	3.75	0.50	

● Coil Parameter (at 23°C)

Coil voltage (VDC)		Coil Resistance (Ω±10%)	Pickup Voltage(max) (VDC)	Release Voltage(min) (VDC)	Coil Power Consumption (W)
Rated	Max.				
6	7.8	100	4.50	0.60	0.36
9	11.7	225	6.75	0.90	
12	15.6	400	9.00	1.20	
24	31.2	1600	18.0	2.40	
48	62.4	6400	36.0	4.80	

● Operation Condition

Insulation Resistance		100MΩ min (at 500VDC)
Dielectric Strength	Between Contacts	750V
	Between Contact and Coil	1500V
Vibration Resistance		10~55Hz double amplitude 1.5mm
Shock Resistance	Functional	98m/s <sup>2</sup>
	Endurance	980m/s <sup>2</sup>
Ambient Temperature		-40~85°C
Operate Time		≤ 10ms
Release Time		≤ 5ms
Relative Humidity		5%~85%
Weight		Approx. 9.5g

● Ordering Information

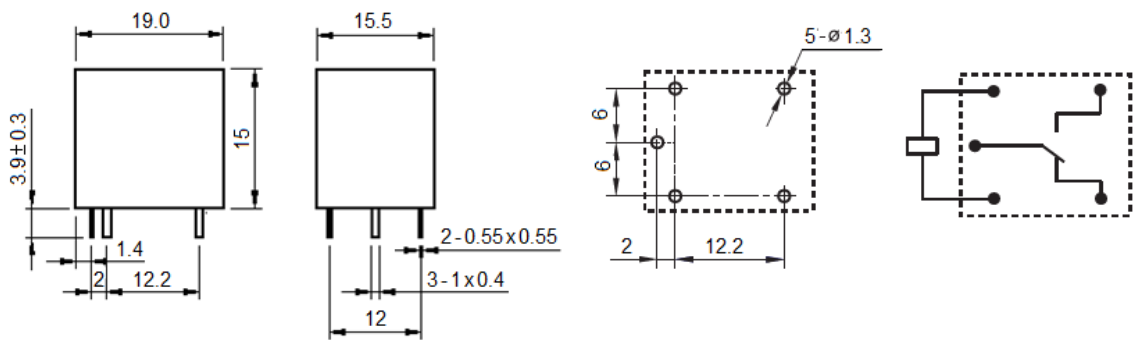
	GF	-12D	-C	-S	(XXX)
Model					
Coil Voltage	3, 5, 6, 9, 12, 24, 48 VDC				
Contact Arrangement	A: 1 Form A   C: 1 Form C				
Construction	Nil: Flux tight   S: Sealed				
Special Code	Nil: Standard   XXX: Customer special requirement				

● Dimensions (UNIT: mm)

Outline Dimensions

Mounting  
(Bottom views)

Wiring Diagram  
(Bottom views)



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.