

## ● Features

- 8A switching capability
- Creepage distance: 6mm (coil & contacts)
- 1 Form A and 1 Form C configurations
- High sensitivity 200mW
- 5KV dielectric between coil to contacts
- UL insulation system: Class F available
- Environmental friendly product (RoHS compliant)
- Dimensions: 20.0 x 10.0 x 10.6 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	1A	6A 250VAC / 30VDC, 8A 250VAC / 30VDC 10A 120VAC
	1C	NO: 6A 250VAC / 30VDC, 8A 250VAC / 30VDC, 10A 120VAC NC: 5A 250VAC / 30VDC
Max. Switching Power		1250VA / 180W
Max. Switching Voltage		277VAC / 30VDC
Max. Switching Current		8A
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	45	2.25	0.30	0.20
5	6.5	125	3.75	0.50	
6	7.8	180	4.50	0.60	
9	11.7	405	6.75	0.90	
12	15.6	720	9.00	1.20	
24	31.2	2880	18.0	2.40	
48	62.4	11520	36.0	4.80	

● Operation Condition

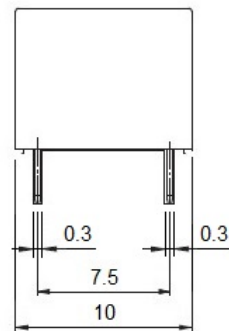
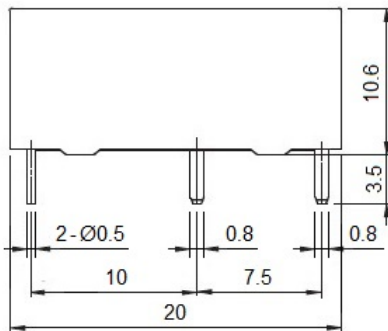
Insulation Resistance		1000M $\Omega$ min (at 500VDC)
Dielectric Strength	Between Contacts	1000V
	Between Contact and Coil	5000V
Surge voltage (Between Coil & Contacts)		10KV 1.2/50 $\mu$ s
Shock resistance	Functional	98m/s <sup>2</sup>
	Endurance	980m/s <sup>2</sup>
Vibration Resistance		10~55Hz double amplitude 1.5mm
Ambient Temperature		-40 ~ +85°C
Operate Time		$\leq 8$ ms
Release Time		$\leq 5$ ms
Relative Humidity		5%~85%
Weight		Approx.4.6g

## ● Ordering Information

	GEL	-12D	-A	F	(XXX)
<b>Model</b>					
<b>Coil Voltage</b>	3, 5, 6, 9, 12, 24, 48 VDC				
<b>Contact Arrangement</b>	A: 1 Form A C: 1 Form C				
<b>Contact Material</b>	Nil: AgSnO2 F: AgNi				
<b>Special Code</b>	Nil: Standard XXX: Customer special requirement				

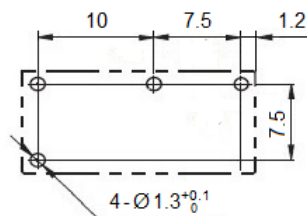
## ● Dimensions (UNIT: mm)

### Outline Dimensions

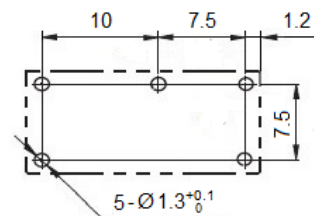


### Mounting (Bottom views)

#### 1 Form A

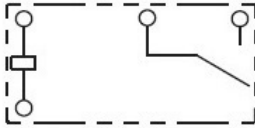


#### 1 Form C

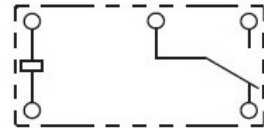


- Dimensions (UNIT: mm)  
Wiring Diagram (Bottom views)

1 Form A



1 Form C



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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