

## ● Features

- 5A switching capability
- 10kV impulse withstand voltage (between coil and contacts)
- Highly efficient magnetic circuit for high sensitivity: 200mW
- Extremely small footprint utilizing PCB area
- UL insulation system: Class F available
- Environmental friendly product (RoHS compliant)
- Dimensions: 20.5 x 7.2 x 15.3 mm



## ● Application

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

## ● Contact Data

Contact Arrangement	1A
Contact Material	Ag Alloy
Contact Rating	5A 250VAC / 30VDC TV-3 120VAC
Max. Switching Power	1250VA / 150W
Max. Switching Voltage	250VAC
Max. Switching Current	5A
Contact Resistance	$\leq 100\text{m}\Omega$
Electrical Endurance	$1 \times 10^5$
Mechanical Endurance	$2 \times 10^7$

## ● 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	0.3	0.2
5	6.5	125	3.75	0.5	
6	7.8	180	4.50	0.6	
9	11.7	405	6.75	0.9	
12	15.6	720	9.00	1.2	
18	23.4	1620	13.5	1.8	
24	31.2	2880	18.0	2.4	

## ● Operation Condition

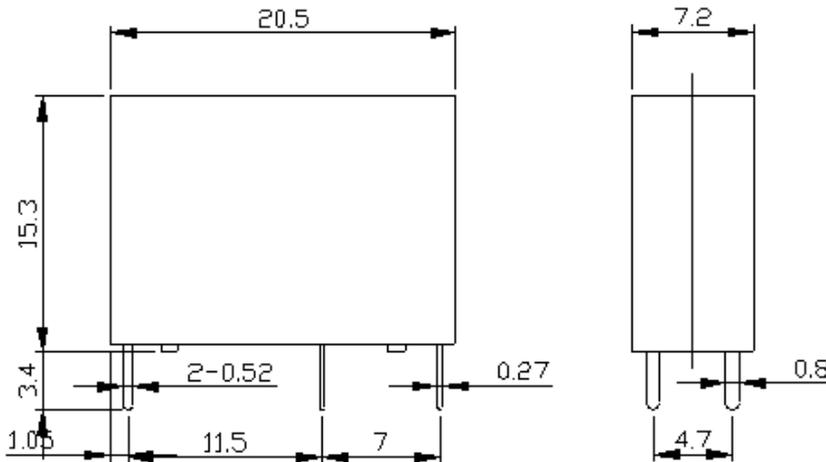
Insulation Resistance		1000M $\Omega$ min (at 500VDC)
Dielectric Strength	Between Contacts	750V
	Between Contact and Coil	4000V, surge voltage:7kV
Shock Resistance	Functional	98m/s <sup>2</sup>
	Endurance	980m/s <sup>2</sup>
Vibration Resistance		10~55Hz double amplitude 1.5mm
Ambient Temperature		-40 ~ +85°C
Operate Time		$\leq 10$ ms
Release Time		$\leq 10$ ms
Relative Humidity		5%~85%
Weight		Approx. 4g

## Ordering Information

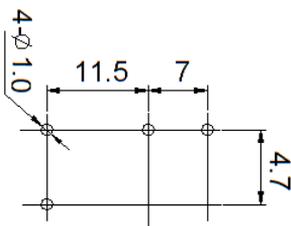
	<b>GB</b>	<b>-12VDC</b>	<b>-A</b>	<b>20</b>	<b>-S</b>	<b>5</b>	<b>(XXX)</b>
<b>Model</b>							
<b>Coil Voltage</b>	3, 6, 9, 12, 18, 24 VDC						
<b>Contact Arrangement</b>	A: 1 Form A						
<b>Coil Power</b>	20: 200mW						
<b>Construction</b>	Nil: Flux tight S: Sealed						
<b>Contact Current</b>	5: 5A						
<b>Special Code</b>	Nil: Standard XXX: Customer special requirement						

## Dimensions (UNIT: mm)

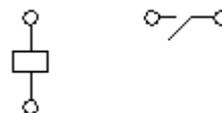
### Outline Dimensions



### 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.

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