Features

- 10A switching capability
- Creepage / clearance distance > 8mm
- 5kV dielectric strength (between coil and contacts)
- Subminiature, standard PCB layout
- Plastic sealed and flux proofed types available
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Dimensions: 17.6 x 10.1 x 12.7 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	10A 250VAC
Max. Switching Power	2500VA
Max. Switching Voltage	250VAC
Max. Switching Current	10A
Contact Resistance	≦100mΩ (6VDC 1A)
Electrical Endurance	$1.5x10^4$ (10A 250VAC, Resistive load, at 85℃, 1s on 9s off)
Mechanical Endurance	$1x10^6$

Coil Parameter (at 23℃)

Standard Type

Coil Voltage (VDC)		Coil Resistance (Ω±10%)	Pickup Voltage(max) (VDC)	Release Voltage(min) (VDC)	Coil Power Consumption (W)
Rated	Max.				
3	3.9	20	2.25	0.15	0.45
5	6.5	55	3.75	0.25	
6	7.8	80	4.50	0.30	
9	11.7	180	6.75	0.45	
12	15.6	320	9.00	0.60	
18	23.4	720	13.5	0.90	
24	31.2	1280	18.0	1.20	

Sensitive Type (Only for 1 Form A)

Coil Voltage (VDC)		Coil Resistance (Ω±10%)	Pickup Voltage(max) (VDC)	Release Voltage(min) (VDC)	Coil Power Consumption (W)
Rated	Max.				
3	4.5	38	2.25	0.15	0.23
5	7.5	108	3.75	0.25	
6	9.0	155	4.50	0.30	
9	13.5	350	6.75	0.45	
12	18.0	620	9.00	0.60	
18	27.0	1390	13.5	0.90	
24	36.0	2480	18.0	1.20	

Operation Condition

Insulation Resistance		1000MΩ min (at 500VDC)
Dielectric Strength	Between Contacts	1000VAC 1min
	Between Contact and Coil	5000VAC 1min

Operation Condition

Shock Resistance	Functional	98m/s^2
	Endurance	980m/s^2
Vibration Resistance		10~55Hz double amplitude 1.5mm
Ambient Temperature		-40 ~ +85℃
Operate Time		≦8ms
Release Time		≦4ms
Relative Humidity		5%~85%
Weight		Approx. 4.6g

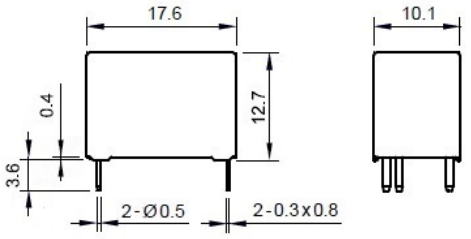
Ordering Information

	GCL	-12D	20	-A	10	- S	(XXX)
Model	GCL1, GCL2						
Coil Voltage	3, 5, 6, 9, 12, 18, 24 VDC						
Coil Power	**Nil**: 450mW **20**: 230mW						
Contact Arrangement	**A**: 1 Form A						
Contact Curren	**10**: 10A						
Construction	**Nil**: Flux tight **S**: Sealed						
Special Code	**Nil**: Standard **XXX**: Customer special requirement						

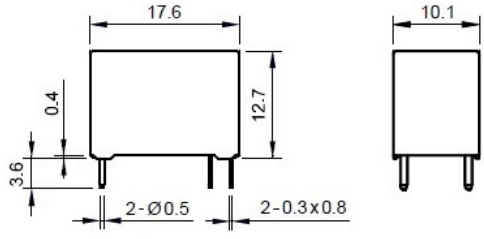
Dimensions (UNIT: mm)

Outline Dimensions

GCL1 type



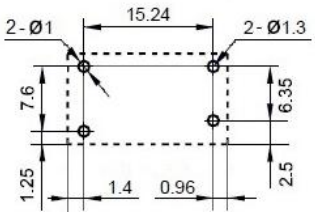
GCL2 type



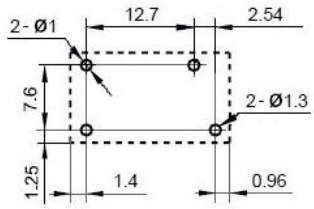
Dimensions (UNIT: mm)

Mounting (Bottom views)

GCL1 type



GCL2 type



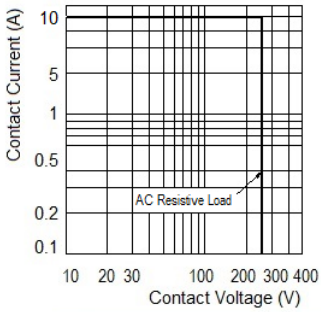
Wiring Diagram (Bottom views)

GCL1 type

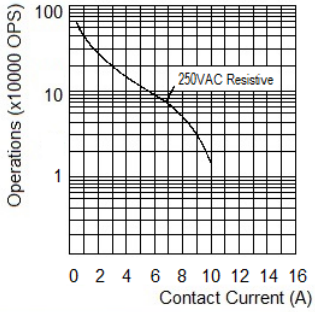
GCL2 type

Engineering Data

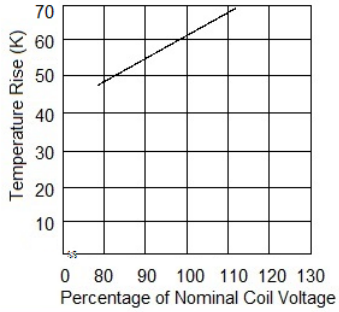
Max. Switching Power



Endurance Curve



Temperature Rise



Test conditions: Flux proofed,
at 85℃, 5s on 5s off.

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.

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.