



GSE. MININATURE POWER RELAY

FEATURES

- ▶ 18.4 X 10.2 X 15.4(H) MM.
- ▶ WIDELY USED 32F SLIM RELAY, SUITS COMPLEX LOAD.
- ▶ 20A MAX SWITCHING CAPACITY, FITS NARROW SPACE.
- ▶ ALSO AVAILABLE IN SENSITIVE COIL, GW COMPLAINT.
- ▶ UL CLASS F INSULATION AVAILABLE, UL TV-8.



 File Number: E516488
 File Number: R50519108

CONTACT RATINGS

Contact Form	1A, 1C		
Contact Resistance	≤100mΩ (1A 6VDC)		
Contact Material	Ag Alloy (AgSnO ₂ , AgSnO ₂ In ₂ O ₃ , AgNi)		
Rated Load (Resistive)	1A	1C	
		NO	NC
	20A 277VAC 10A 277VAC 5A 277VAC	10A 277VAC 5A 277VAC	5A 277VAC
Max. Switching Current	20A	10A	5A
Max. Switching Power	5,540VA	2,770VA	1,385VA
Max. Switching Voltage	277VAC		
Min. Permissible Load	100mA at 5VDC		

CHARACTERISTICS

Operate Time	≤ 10ms		
Release Time	≤ 5ms		
Insulation Resistance	1,000MΩ (500VDC)		
Dielectric Strength	I / O	O / O	
	4,000VAC 1min		1,000VAC 1 min
Shock Resistance	Non-energized	Destruction	Malfunction
	100 m/s ² (10G)	1,000 m/s ² (100G)	100 m/s ² (10G)
Vibration Resistance	Destruction		Malfunction
	10 to 55 Hz, (1.5mm double amplitude)		10 to 55 Hz, (1.5mm double amplitude)
Ambient Temperature	Operating: -40°C to 105°C with no icing or condensation		
Ambient Humidity	Operating: 5% to 85%		
Pin Type	PCB Pins		
Weight	Approx. 7g		

NOTE: The data shown above are initial values.

COIL DATA

Standard	Approx. 450mW				
Rated Voltage (VDC)	Operate Voltage (VDC)	Release Voltage (VDC)	Max. Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%
3	≤2.25	≥0.15	3.9	150	20
5	≤3.75	≥0.25	6.5	90	55.5
6	≤4.5	≥0.3	7.8	75	80
9	≤6.75	≥0.45	11.7	50	180
12	≤9	≥0.6	15.6	37.5	320
24	≤18	≥1.2	31.2	18.8	1,280
Sensitive	Approx. 200mW				
Rated Voltage (VDC)	Operate Voltage (VDC)	Release Voltage (VDC)	Max. Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%
3	≤2.4	≥0.15	3.9	66.7	45
5	≤4	≥0.25	6.5	40	125
6	≤4.8	≥0.3	7.8	33.3	180
9	≤7.2	≥0.45	11.7	22.2	405
12	≤9.6	≥0.6	15.6	16.7	720
24	≤19.2	≥1.2	31.2	8.3	2,880

LIFE EXPECTANCY DATA

Mechanical Life Expectancy	10,000,000 Operations	
Electrical Life Expectancy	1 FROM A	1 FORM C
	100,000 Operations (H Type) (16A 277VAC Resistive Load, 1s ON / 9s OFF)	50,000 Operations (NO: 10A / NC: 5A 277VAC Resistive Load, 1s ON / 9s OFF)
	100,000 Operations (10A 277VAC Resistive Load, 1s ON / 9s OFF)	100,000 Operations (NO: 5A / NC: 3A 277VAC Resistive Load, 1s ON / 9s OFF)
	100,000 Operations (5A 277VAC Resistive Load, 1s ON / 9s OFF)	

NOTE: The electrical life data items shown are possible at 23°C.

SAFETY APPROVALS

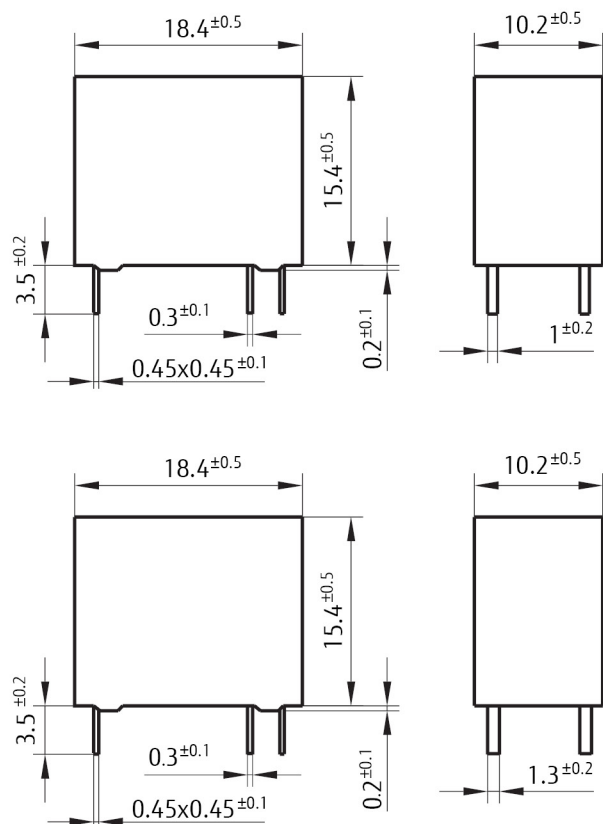
ULus / cUL TV-8	Coil Rating	Contact Rating
	3 to 48VDC	NO 16A 277VAC 85°C 50,000 cycles 10A 277VAC 105°C 100,000 cycles
TUV	Coil Rating	Contact Rating
	3 to 48VDC	NO 20A 277VAC 85°C 20,000 cycles 16A 277VAC 105°C 50,000 cycles 10A 277VAC 105°C 100,000 cycles

ORDERING INFORMATION

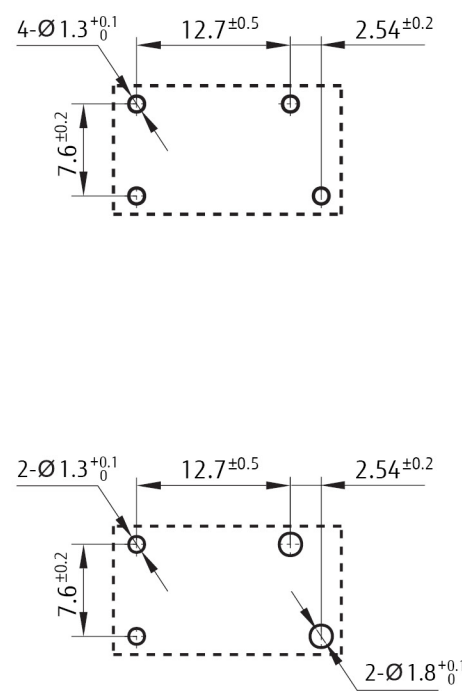
Type	Contact / Seal Key	Variation Key	Coil Key
GSE	S 1 A Q H	L F E1	24 VDC
Seal Type	Nil: Flux Proof (RTII); S: Fully Sealed (RTIII)		X / XX (3 ~ 48): Coil DC Voltage Value Coil Voltage
NO of Pole	1: Single Pole		Nil: Standard Configuration; E1: Customer Code Customer Code
Contact Form	A: Form A / Normally Open; C: Form C / Change Over		Nil: Standard Insulation; F: Class F Insulation Insulation Class
Contact Material	Nil: Silver Alloy (ROHS Compliant); Q: Silver Alloy: (Designed for Resistive Load)		Nil: Standard Coil: 0.45W; L: Sensitive Coil: 0.2W Power Consumption
Contact Capacity	Nil: Standard Switching Capacity (up to 10A); H: High Switching Capacity (up to 20A)		

DIMENSIONS (UNIT: MM)

Outline Dimensions



PCB Layout (Bottom View)



Wiring Diagram

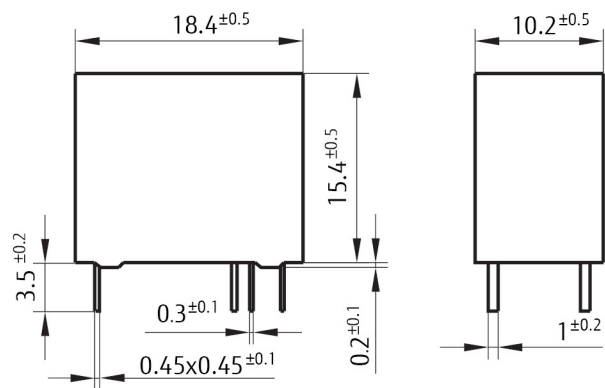


1 FORM A

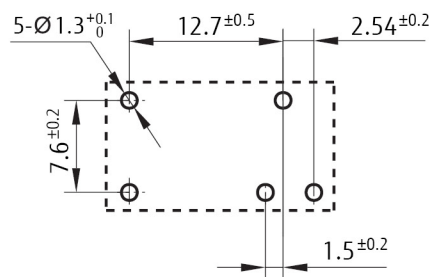
1 FORM A
H Type

DIMENSIONS (CONT.)

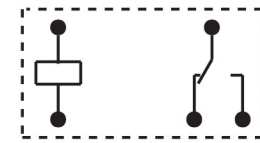
Outline Dimensions



PCB Layout (Bottom View)



Wiring Diagram

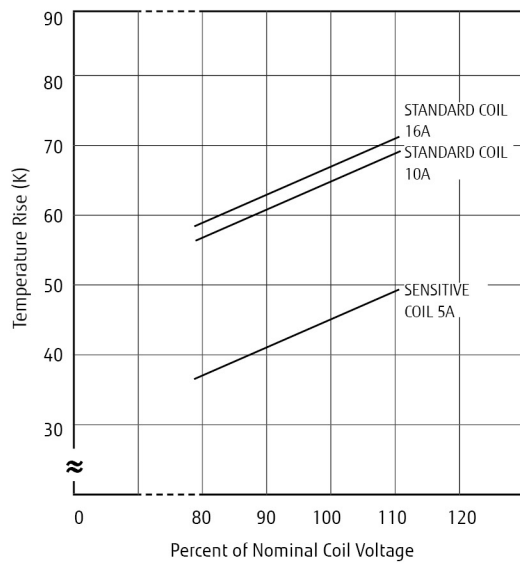


1 FORM C

ENGINEERING DATA

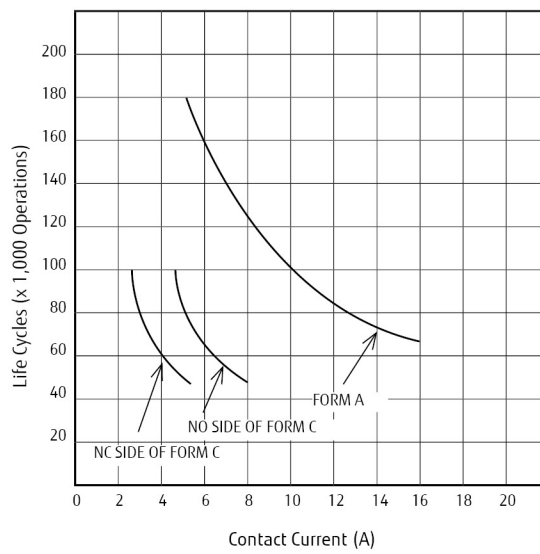
Coil Temperature Rise

70°C 10A; Distance: 10mm

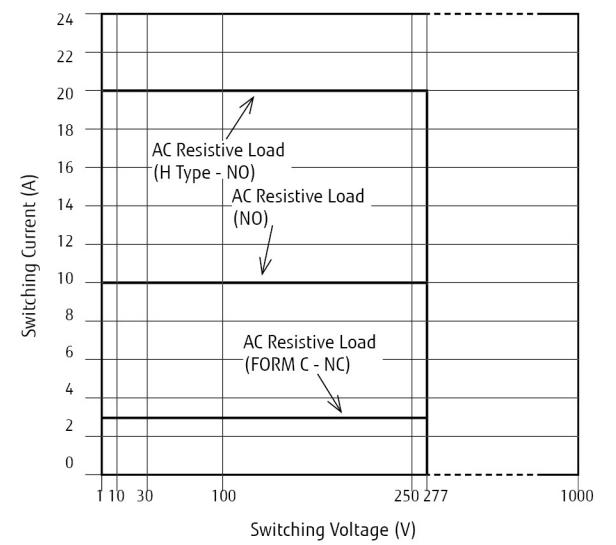


Electrical Cycles

NO: 277VAC NC: 277VAC Resistive 1s ON / 9s OFF



Maximum Switching Capacity

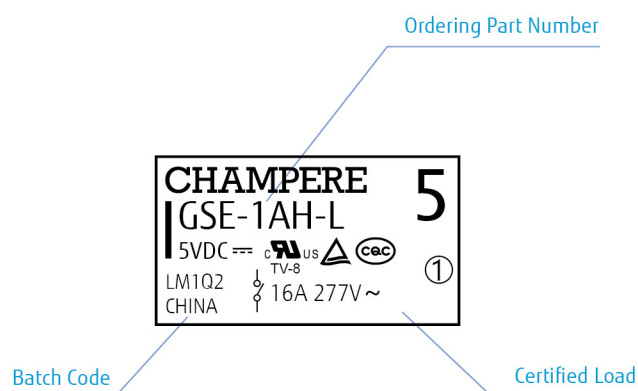


PRINT LAYOUT

Below layout is for reference only.

TOP / SIDE PRINTING

LASER PRINTED ON BLACK CASE



PACKAGE INFORMATION

PVC Tray	
Inner Package Type & Quantity	100Pcs Per PVC Tray
Outer Package Type & Quantity	1,000pcs per Carton with Logo and Sticker
Outer Package Dimension & Weight G.W. / N.W.	35 x 26 x 18 cm; 8Kgs / 7Kgs