

Features

- 5A switching capability
- The thickness of the product is 5mm, suitable for high density installation
- highly efficient magnetic circuit for high sensitivity: 120mW
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (20.0×5.0×12.5) mm
- Main application: signal control



CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		100mΩ(6VDC 1A)
	Contact material		AgNi、AgSnO ₂
Rated value	Rated load(Resistance load)		5A 250VAC/30VDC
	Max.switching voltage		250VAC/30VDC
	Max.switching current		5A
	Max.switching capacity		1250VA/150W
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1000VAC,1min
		Between coil&contacts	3000VAC,1min
	Operate time		≤10ms
	Release time		≤5ms
Mechanical performance	Shock resistance	Functional	98m/s ² (10g)
		Destructive	980m/s ² (100g)
Vibration resistance		10Hz~55Hz 1.5mm DA	
Endurance	Mechanical		1×10 ⁷ ops
	Electrical		5A 250VAC/30VDC 1×10 ⁵ ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx.3g
Construction			Plastic sealed、Flux proofed

■ COIL DATA(23°C)

■ Standard Type

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	40mA	75Ω	120mW	130%Nominal Voltage
DC 5V	≤3.75	≥0.25	24mA	208.3Ω		
DC 6V	≤4.50	≥0.30	20mA	300Ω		
DC 9V	≤6.75	≥0.45	13.3mA	675Ω		
DC 12V	≤9.00	≥0.60	10mA	1200Ω		
DC 15V	≤11.25	≥0.75	8mA	1875Ω		
DC 18V	≤13.50	≥0.90	6.7mA	2700Ω		
DC 24V	≤18.00	≥1.20	5mA	4800Ω		

■ High power consumption type

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	60mA	50Ω	180mW	130%Nominal Voltage
DC 5V	≤3.75	≥0.25	36mA	139Ω		
DC 6V	≤4.50	≥0.30	30mA	200Ω		
DC 9V	≤6.75	≥0.45	20mA	450Ω		
DC 12V	≤9.00	≥0.60	15mA	800Ω		
DC 15V	≤11.25	≥0.75	12mA	1250Ω		
DC 18V	≤13.50	≥0.90	10mA	1800Ω		
DC 24V	≤18.00	≥1.20	7.5mA	3200Ω		

■ ORDERING INFORMATION

FH19/FH19F -1A 1 S T H -XXX DC12V

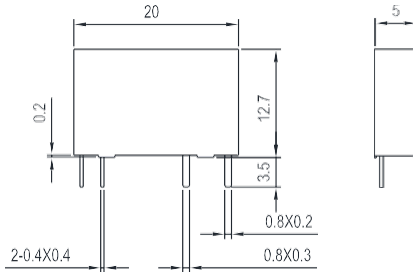
- FH19=Vertical mounting type、
FH19F=Horizontal mounting type
- ② Contact arrangement: 1A=1open contacts
- ③ PCB mounting: 1=type 1、2=type 2
- ④ Construction: Nil=Flux proofed, S=Plastic sealed
- ⑤ Contact material(1): Nil=AgNi、T=AgSnO₂
- ⑥ Coil power: Nil=120mW、H=180mW
- ⑦ Customer special code: numbers or letters denote customer's requirements
- ⑧ Coil specification: DC5/6/9/12/24V

Notes: (1)Due to the high surge current of relay connection,we propose to use AgSnO₂ contacts.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

Vertical mounting type

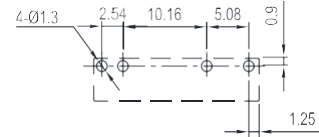
1A1 Outline Dimensions



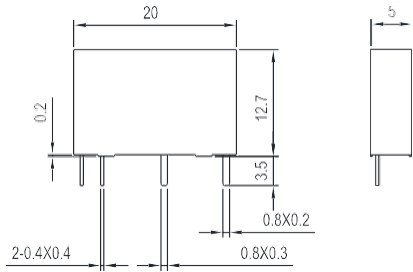
Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



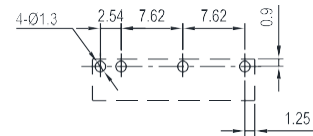
1A2 Outline Dimensions



Wiring Diagram
(Bottom view)

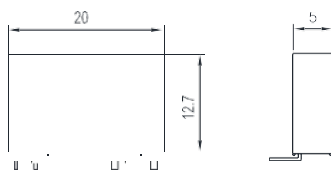
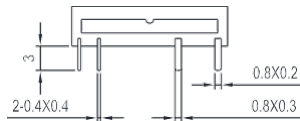


PCB Layout
(Bottom view)

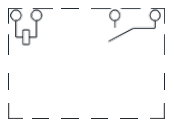


Horizontal mounting type

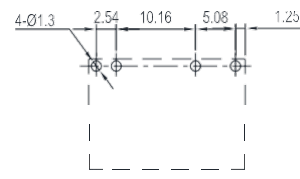
1A1 Outline Dimensions



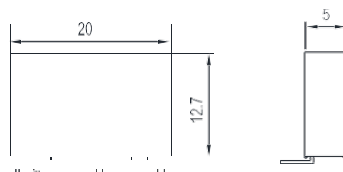
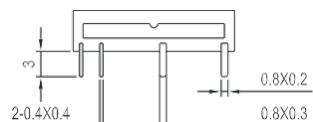
Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



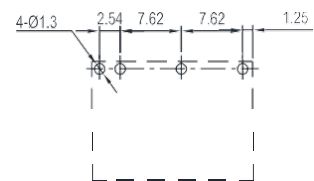
1A2 Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

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 $< 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $\geq 5\text{mm}$, tolerance should be $\pm 0.5\text{mm}$.

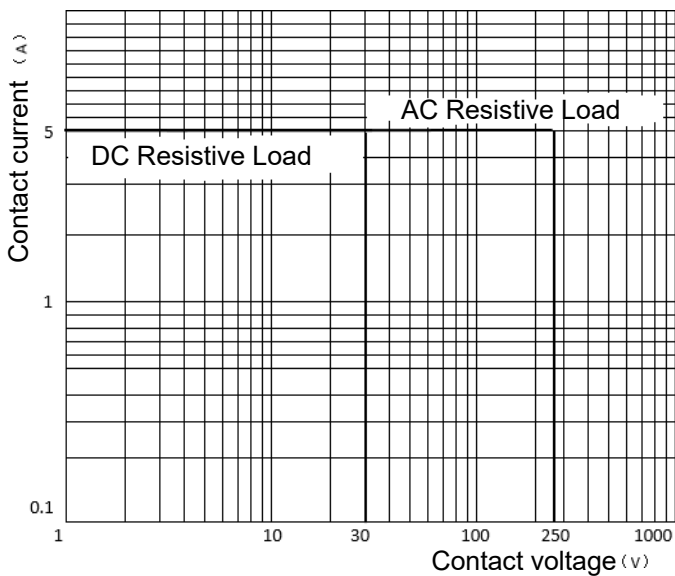
(2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

■ SAFETY APPROVAL RATINGS

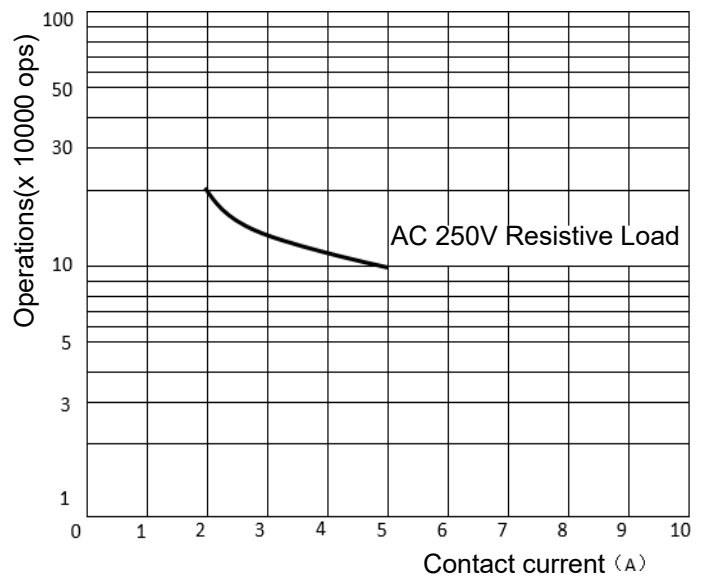
Approval	File No.	Contact arrangement	Contact material	Approved ratings
UL/C-UL	/	/	/	/
TUV	R 50346402	1A(NO)	AgNi 、 AgSnO ₂	5A/3A 250VAC/30VDC 85°C
CQC	CQC16002144390	1A(NO)	AgNi 、 AgSnO ₂	5A/3A 250VAC/30VDC 85°C

■ PERFORMANCE CURVES

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



■ NOTICE

- ① If the relay needs to be cleaned or used in bad environment (e.g.: dust or organic gas), we recommend plastic sealed type.
- ② The specification is for reference only, specifications subject to change without notice.