

Features

- Bifurcated welded double contact structure
- The thickness of the product is 5mm,suitable for high density installation
- High sensitive type,coil power is120mW
- UL insulation system:Class F
- Environment-friendly product(RoHS compliant)
- Outline Dimensions:(20.2×5.2×12.5)mm
- Main application:Industrial Control



CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤100mΩ(6VDC 1A)
	Contact material		AgNi
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(Room temperature)		5A 250VAC/30VDC 5×10 ⁴ 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	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	40mA	75Ω	120mW	DC 3.9V
DC 5V	≤3.75	≥0.25	24mA	208.3Ω		DC 6.5V
DC 6V	≤4.50	≥0.30	20mA	300Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	13.3mA	675Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	10mA	1200Ω		DC 15.6V
DC 15V	≤11.25	≥0.75	8mA	1875Ω		DC 19.5V
DC 18V	≤13.50	≥0.90	6.7mA	2700Ω		DC 23.4V
DC 24V	≤18.00	≥1.20	5mA	4800Ω		DC 31.2V

■ High power consumption type

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	60mA	50Ω	180mW	DC 3.9V
DC 5V	≤3.75	≥0.25	36mA	139Ω		DC 6.5V
DC 6V	≤4.50	≥0.30	30mA	200Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	20mA	450Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	15mA	800Ω		DC 15.6V
DC 15V	≤11.25	≥0.75	12mA	1250Ω		DC 19.5V
DC 18V	≤13.50	≥0.90	10mA	1800Ω		DC 23.4V
DC 24V	≤18.00	≥1.20	7.5mA	3200Ω		DC 31.2V

■ ORDERING INFORMATION

FH19 -1A 1 S H -XXX DC12V

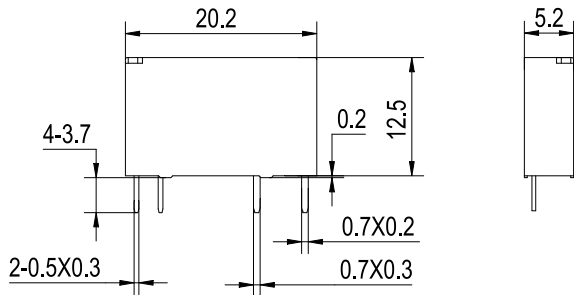
- ① Type
- ② Contact arrangement: 1A=1open contacts
- ③ PCB mounting: 1=type 1, 2=type 2
- ④ Construction(1): Nil=Flux proofed, S=Plastic sealed
- ⑤ Coil power: Nil=120mW, H=180mW
- ⑥ Customer special code: numbers or letters denote customer's requirements. For example: F product stands for horizontal mounting type
- ⑦ Coil specification: DC5/6/9/12/24V

- (1) When used in clean environment(excluding H₂S,SO₂,NO₂,dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H₂S,SO₂,NO₂,dust and other pollutants), it is recommended to choose the Plastic sealed.

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

1A1

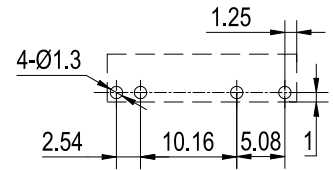
Outline Dimensions



Wiring Diagram
(Bottom view)

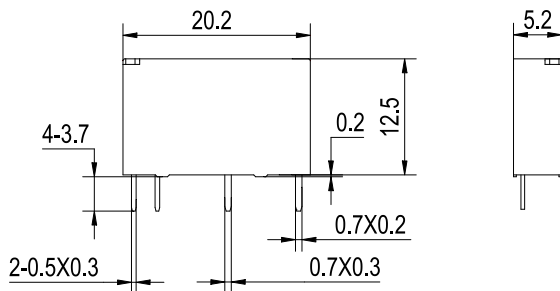


PCB Layout
(Bottom view)

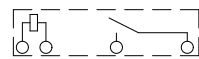


1A2

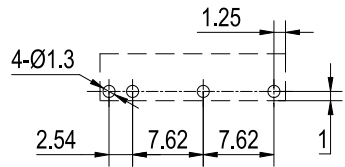
Outline Dimensions



Wiring Diagram
(Bottom view)

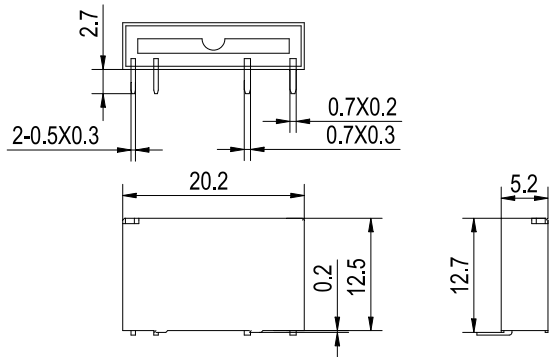


PCB Layout
(Bottom view)

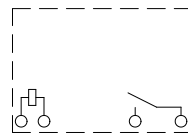


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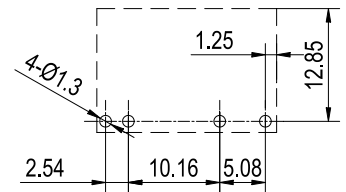
Outline Dimensions



Wiring Diagram
(Bottom view)

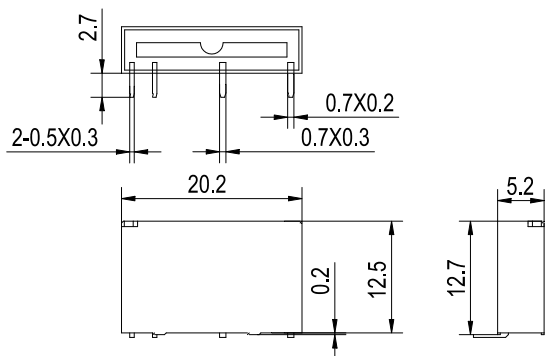


PCB Layout
(Bottom view)

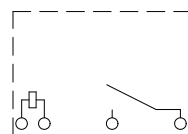


1A2-F

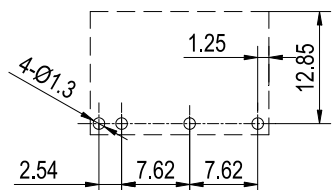
Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



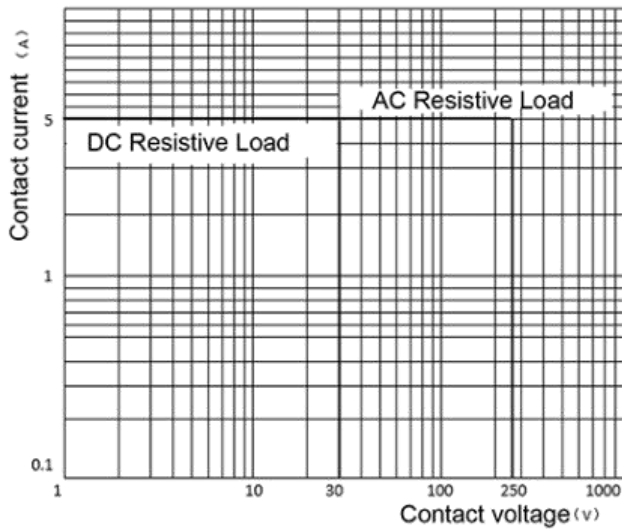
Remark: (1) In case of no tolerance shown in outline dimension:outline dimension \leq 1mm,tolerance should be \pm 0.2mm;outline dimension $>$ 1mm and $<$ 5mm,tolerance should be \pm 0.3mm;outline dimension \geq 5mm,tolerance should be \pm 0.5mm.

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

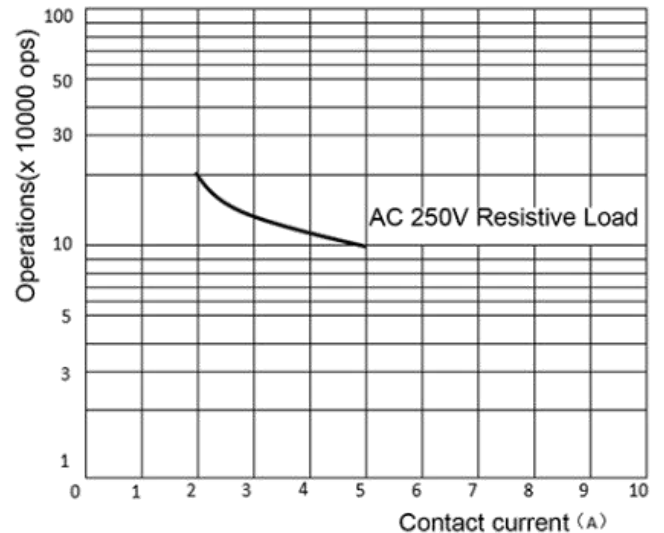
SAFETY APPROVAL RATINGS

Approval	File No.	Contact arrangement	Contact material	Approved ratings
UL/C-UL	E475405	1A	AgNi	5A 250VAC/30VDC 85/90°C
TUV	R 50565678	1A	AgNi	5A 250VAC/30VDC 85°C
CQC	CQC22002370207	1A	AgNi	5A 250VAC/30VDC 85°C

PERFORMANCE CURVES



MAXIMUM SWITCHING POWER



ENDURANCE CURVE

NOTICE

- ① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;
- ② The specification is for reference only.Specifications subject to change without notice.