FH56L

Latching Relay

Features

- 150A switching capability
- Optional contact gap >2.0mm
- Only pulse excitation voltage is required, energy saving and environmental protection
- Environment-friendly product(RoHS compliant)
- Outline Dimensions:(39.4×22×27.5)mm
- Main application:Electronic control systems for telecommunication,
- construction machinery, trams, automobiles, trains, ships, etc

CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤1mΩ(6VDC 20A)
	Contact material		$AgSnO_2$
Rated value	Rated load(Resistance load)		Main contact: Making 50A,Carrying 125A,Breaking 50A,80VDC Making 50A,Carrying 150A,Breaking 50A,60VDC Making 50A,Carrying 125A,Breaking 50A,305VAC Making 50A,Carrying 150A,Breaking 50A,277VAC Auxiliary contact: 1A 6VDC
	Max.switching voltage		Main contact:305VAC/80VDC Auxiliary contact:6VDC
	Max.switching current		Main contact:50A Auxiliary contact:1A
	Max.switching capacity		Main contact:15250VA/4000W Auxiliary contact:6W
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open Main contacts	2000VAC,1min
		Between coil&Main contacts	4000VAC,1min
	Set time		≤20ms
	Reset time		≤20ms
Mechanical performance	Shock resistance	Functional	$98m/s^2$(10G)
		Destructive	$980m/s^2$(100G)
	Vibration resistance		$1×10^5$ops10Hz~55Hz 1.5mm DA
Endurance	Mechanical		$1×10^5$ops
	Electrical(Room temperature)		Main contact: $6×10^3$ 次(ON/OFF=1s/9s,Resistive) Making 50A,Carrying 125A,Breaking 50A,80VDC Making 50A,Carrying 150A,Breaking 50A,60VDC Making 50A,Carrying 125A,Breaking 50A,305VAC Making 50A,Carrying 150A,Breaking 50A,277VAC

Operate condition	Ambient temperature	-40℃~85℃
	Humidity	5% to 85%
Termination		PCB
Unit weight		Approx.60g
Construction		Plastic sealed, Flux proofed

COIL DATA(23℃)

■Single coil latching

Nominal Voltage	Set Voltage VDC	Reset Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Pulse Duration
DC 12V	≤9.0	≤9.0	641.7mA	18.7Ω	7.7W	200ms
DC 24V	≤18.0	≤18.0	320.8mA	74.8Ω		200ms
DC 48V	≤36.0	≤36.0	160.4mA	299.2Ω		200ms
DC 60V	≤45	≤45.0	128.3mA	701.3Ω		200ms

■Double coils latching

Nominal Voltage	Set Voltage VDC	Reset Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Pulse Duration
DC 12V	≤8.4	≤8.4	1283/1283mA	9.4/9.4Ω	15.4W	200ms
DC 24V	≤16.8	≤16.8	641.6/641.6mA	37.4/37.4Ω		200ms
DC 48V	≤33.6	≤33.6	320.8/320.8mA	149.6/149.6Ω		200ms
DC 60V	≤42	≤42	256.7/256.7mA	233.7/233.7Ω		200ms

ORDERING INFORMATION

	FH56L	-BG	-1A	T	F	A	-L1	R	-AC	DC12V

① Type

② Contact gap:Nil=1.5mm contact gap
BG=2.0mm contact gap

③ Contact arrangement:1A=1open contacts

④Contact material:T=$AgSnO_2$

⑤ Insulation system:F=Class F

⑥Eliminate electric arc：A=with Eliminate electric arc
B=no Eliminate electric arc

⑦Coil type:L1=Single coil latching、L2=Double coils latching

⑧Operation polarity:Nil=standard polarity R=reversed polarity

⑨Auxiliary contact :AC= with auxiliary contact

⑩Coil specification:DC12/24/48/60V

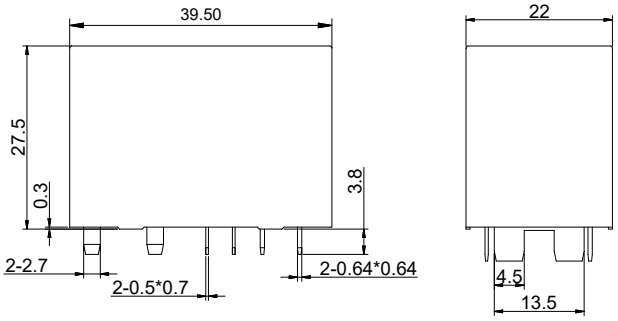
(1) When used in clean environment(excluding H_2S,SO_2,NO_2,dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H_2S,SO_2,NO_2,dust and other pollutants), it is recommended to choose the Plastic sealed.

(2) The auxiliary contacts and main contacts have the same form;

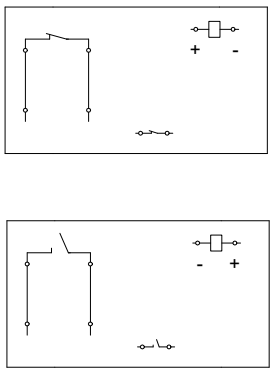
OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

1A Single coil latching

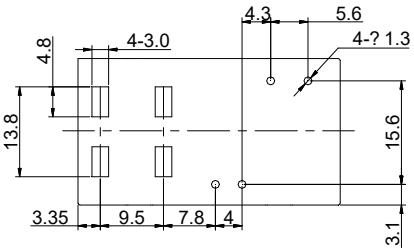
Outline Dimensions



Wiring Diagram
(Bottom view)

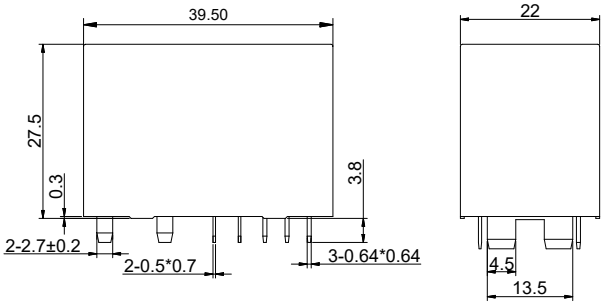


PCB Layout
(Bottom view)

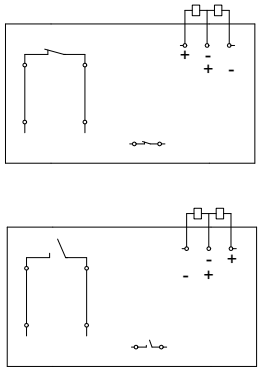


1A Double coil latching

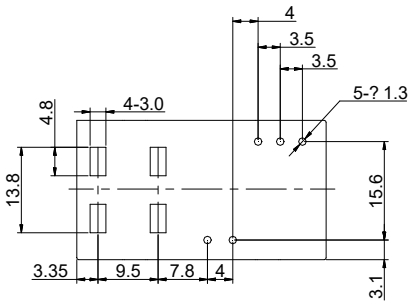
Outline Dimensions



Wiring Diagram (Bottom view)



PCB Layout (Bottom view)



Remark:⑴In 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.

⑵ The tolerance without indicating for PCB layout is always ±0.1mm.

NOTICE

① For the state of latching relay as delivered,If the customer has no special requirements, we default to the closed state before delivery,but due to transportation or relay installation by shock and other factors may change the state,so please reset it to the closed or open state as needed when using;

② In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;

③ In order to maintain "opening" or "closing" status,energized voltage applied across the coil should reach the rated voltage,it is recommended that the actual driving voltage be 1~1.1 times the rated voltage, Pulse width 200±50ms,,and do not energize to "opening" coil and "closing" coil simultaneously,long energized time(＞1 min) should also be avoided;

④ Avoid magnetic fields greater than 200mt around the product, strong magnetic fields will affect the normal operation of the product;

⑤ The specification is for reference only.Specifications subject to change without notice.