

HFE39

MINIATURE HIGH POWER LATCHING RELAY



Features

- 16A switching capability
- Latching relay
- Max.inrush current capability 350A/2ms
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (20.0 x 30.0 x 10.2)mm

CONTACT DATA

Contact arrangement	2A,2B
Contact resistance	20mΩ max. (at 1A 24VDC)
Contact material	AgSnO ₂
Contact rating	Resistance load:16A 250VAC
Max. switching voltage	277VAC
Max. switching current	20A
Max. switching power	4000VA
Mechanical endurance	1 x 10 ⁶ OPS
Electrical endurance	1 x 10 ⁵ OPS

CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
Creepage distance	8mm min.	
Operate time (at nomi. volt.)	15ms max.	
Reset time (at nomi. volt.)	15msmax.	
Shock resistance	Functional	98m/s ²
	Destructive	980m/s ²
Vibration resistance	10Hz to 55Hz 1.5mm DA	
Humidity	5% to 85% RH	
Ambient temperature	-40°C to 85°C	
Termination	PCB	
Unit weight	Approx.12g	
Construction	Plastic sealed, Flux proofed	

Notes: The data shown above are initial values.

COIL

Coil power	Single coil latching: Approx 1W
	Double coils latching: Approx 2W

COIL DATA

at 23°C

Nominal Voltage VDC	Set / Reset Voltage VDC max.	Pulse Duration ms min.	Coil Resistance x (1±10%) Ω
3	2.1	50	
5	3.5	50	
6	4.2	50	
9	6.3	50	
12	8.4	50	
24	16.8	50	
48	33.6	50	2304
3	2.1	50	Double coils latching
5	3.5	50	
6	4.2	50	
9	6.3	50	
12	8.4	50	
24	16.8	50	
48	33.6	50	



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001、IECQ QC 080000 CERTIFIED

2013 Rev. 1.00

ORDERING INFORMATION

Type	HFE39		-1	/12	-2D	S	T	-L1	-R	(XXX)
Version	1: with manual switch Nil: No manual switch									
Coil voltage	3, 5, 6, 9, 12, 24, 48 VDC									
Contact form ¹⁾	2D: 2 Form B 2H: 2 Form A									
Construction ²⁾	S: Plastic sealed Nil: Flux proofed									
Contact material T:	AgSnO ₂									
Sort	L1: Single coil latching		L2: Double coils latching							
Polarity	R: Reverse polarity		Nil: Positive polarity							
Customer special code										

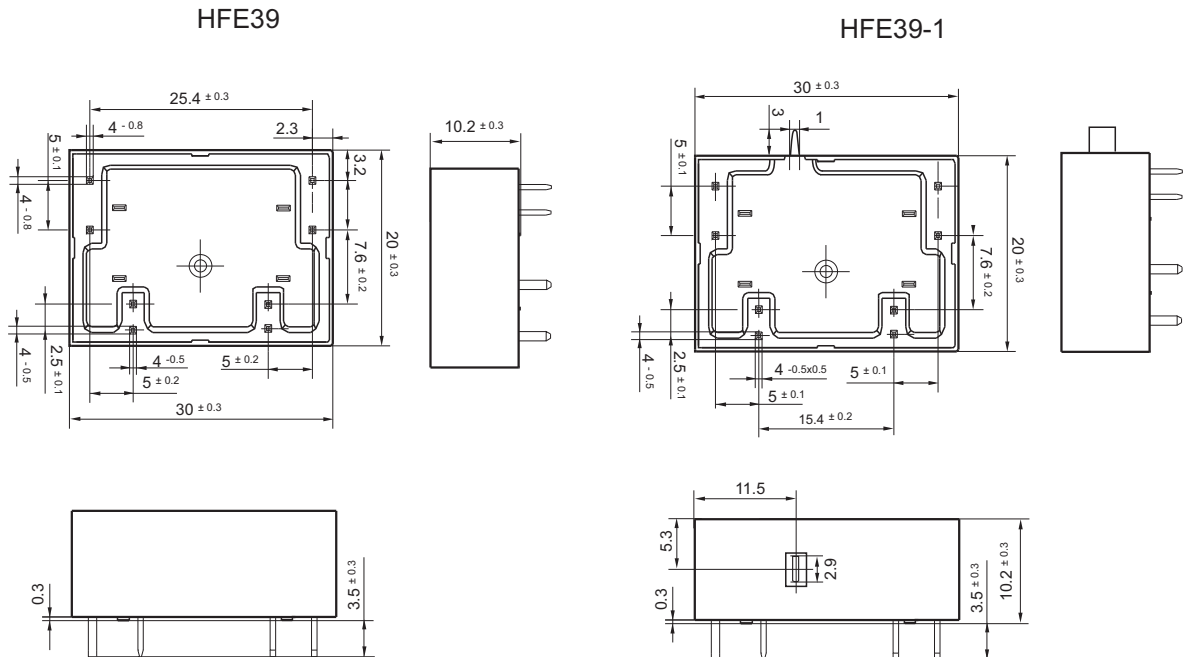
Notes: 1) 2H means that relay is on the "reset" status when delivery; 2D means that relay is on the "set" status when delivery. If no special required by customer, we will keep the relay on the "set" status when delivery.

2) If water cleaning is required after the relay is assembled on PCB, please contact us for suggestion about suitable parts.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

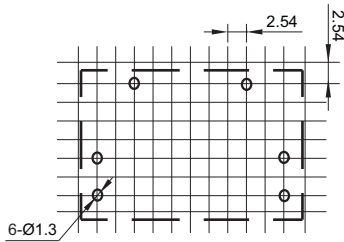
Unit: mm

Outline Dimensions

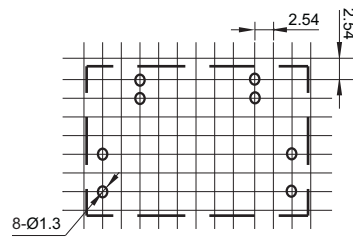


PCB Layout (Bottom view)

Single coil latching,
2 Form A, 2 Form B, 1A+1B

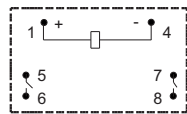


Double coils latching,
2 Form A, 2 Form B, 1A+1B

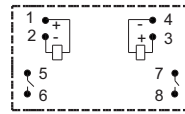


Wiring Diagram (Bottom view)

Single coil latching



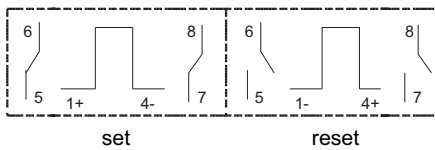
Double coils latching



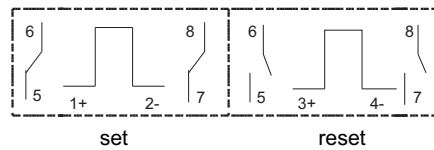
2 Form A

Positive polarity

Single coil latching

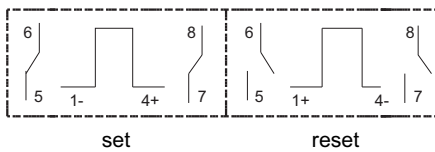


Double coils latching

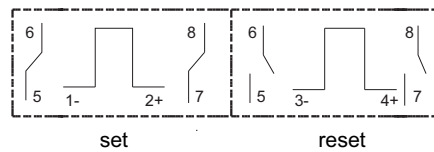


Reverse polarity

Single coil latching



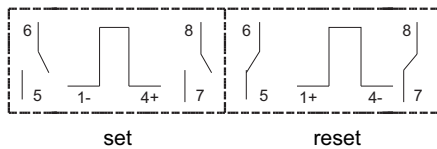
Double coils latching



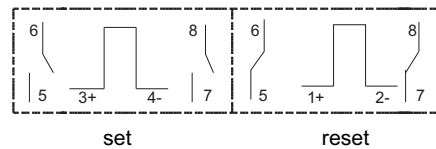
2 Form B

Positive polarity

Single coil latching

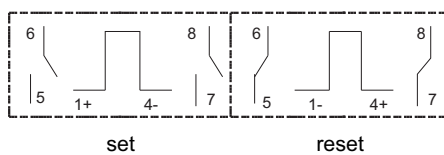


Double coils latching

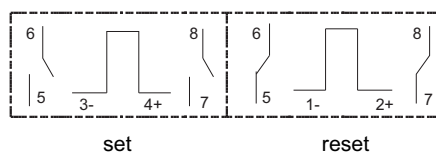


Reverse polarity

Single coil latching



Double coils latching



Notice

1. Relay is on the "reset" or "set" status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to "set" or "reset" status, therefore, when application (connecting the power supply), please reset the relay to "set" or "reset" status on request.
2. In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min) should be avoided.
3. The terminals of relay without twisted copper wire can not be tin-soldered, can not be moved willfully.
4. Relays used for metering measuring applications are usually made with dust proof structure, while most relays could be made specially per customer's specific requirements.No longer than 6 months' storage time is recommended for this kind of relay, and please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be closed when delivery if no special required by customer.

Disclaimer

This datasheet is for the customers' reference. All the specifications are 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 Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.