

HFE19-80(391) MINIATURE HIGH POWER LATCHING RELAY



Features

- 80A switching capability
- Latching relay
- The relay can stand 2200A peak current for 10ms
- Intergrated one-piece installation solution, facilitate your installation requirement.
- 4kV dielectric strength (between coil and contact)
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (38.0 x 30.9 x 16.5) mm

CONTACT DATA	
Contact arrangement	1A, 1B
Contact resistance	1mΩ max.(at 1A 24VDC)
Contact material	AgSnO2
Contact rating (Res. load)	80A 250VAC
Max. switching voltage	250VAC
Max. switching current	80A
Max. switching power	20000VA
Mechanical endurance	1 x 10 ⁵ OPS
Electrical endurance	5000OPS

CHARACTERISTICS		
Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1500VAC 1min
Creepage distance		8mm
Operate time (at nomi. volt.)		20ms max.
Release time (at nomi. volt.)		20ms max.
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 70°C
Temperature rise		55K max.
Termination		PCB
Unit weight		Approx. 50g
Construction		Dust protected

Notes: The data shown above are initial values.

COIL	
Coil power	1 coil latching: Approx. 1.0W
	2 coils latching: Approx. 2.0W

COIL DATA				at 23°C
1 coil latching				
Nominal Voltage VDC	Set / Reset Voltage VDC max.	Pulse Duration ms min.	Coil Resistance x (1±10%) Ω	
5	4	100	25	
6	4.8	100	36	
9	7.2	100	80	
12	9.6	100	145	
24	19.2	100	575	
48	38.4	100	2270	

2 coils latching				
Nominal Voltage VDC	Set / Reset Voltage VDC max.	Pulse Duration ms min.	Coil Resistance x (1±10%) Ω	
5	4	100	12.5+12.5	
6	4.8	100	18+18	
9	7.2	100	40+40	
12	9.6	100	72+72	
24	19.2	100	285+285	
48	38.4	100	1152+1152	

Notes: When requiring other nominal voltage, special order allowed.

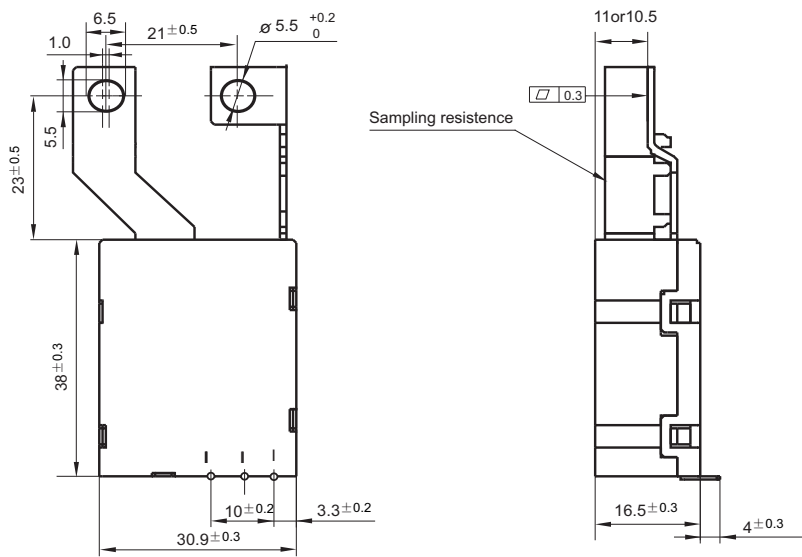
ORDERING INFORMATION							
	HFE19	-80/	9	-D	T	-1	-R (391)
Type							
Contact rating	80: 80A						
Coil voltage	5, 6, 9, 12, 24, 48VDC						
Contact form ¹⁾	H: 1 Form A D: 1 Form B						
Contact material	T: AgSnO ₂						
Sort	1: 1 coil latching			2: 2 coils latching			
Polarity	R: Negative polarity			Nil: Positive polarity			
Product special code							

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

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions



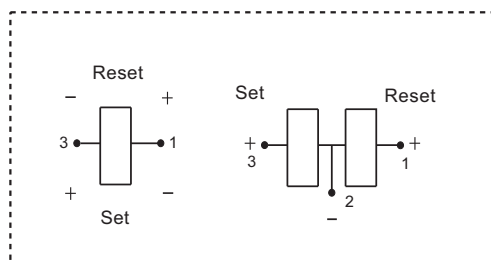
Remark: 1) During the installation, please pre-fix the screws onto the two install holes then fasten the screws to protect relays working reliablty from stress force during the installation.
2) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension > 1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension > 5mm, tolerance should be ±0.4mm.
3) The tolerance without indicating for PCB layout is always ±0.1mm.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

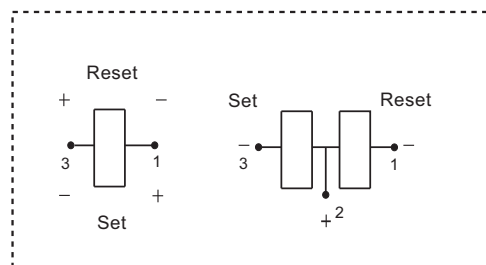
Unit: mm

Wiring Diagram

Positive polarity



Negative polarity



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 load's output terminals of the latching relay can not be tin-soldered nor be wrenched;
4. Please control the distance difference between the working areas of the meter connection terminals can not exceed 0.5mm;

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.

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