



### Typical Applications

Indicator lamp control, Powerdoor & windows, Wiper control

### Features

- 20A switching capability
- Ambient temp.: -40°C to +85°C
- 1 Form A & 1 Form C contact arrangement
- Sealed and dust cover types available
- RoHS & ELV compliant (555)

## CHARACTERISTICS

Contact arrangement	1A, 1C	Release time	Typ.: 5 ms Max.: 10 ms <sup>3)</sup>
Voltage drop (initial) <sup>1)</sup>	Typ.: 100mV (at 10A) Max.: 250mV (at 10A)	Ambient temperature	-40°C to +85°C
Max. switching current	20A	Vibration resistance	10Hz to 500Hz 98m/s <sup>2</sup> (10g)
Max. switching voltage	14VDC/250VAC	Shock resistance	196 m/s <sup>2</sup> (20g)
Inrush current	60A (at 14VDC)	Termination	PCB <sup>4)</sup>
Min. contact load	0.1A 6VDC	Construction	Sealed IP67 & Flux proof
Electrical life	1×10 <sup>5</sup> OPS	Unit weight	Approx. 15g
Mechanical life	1 x 10 <sup>7</sup> OPS 300OPS/min	Mechanical data	cover retention (pull & push): 50N terminal retention (pull & push): 5N
Initial insulation resistance	100MΩ (at 500VDC)		
Dielectric strength	750VAC (1min, leakage current less than 1mA)		
Operate time	Typ.:5 ms Max.: 10 ms <sup>2)</sup>		

- 1) Equivalent to the max. initial contact resistance is 100mΩ (at 1A 6VDC).
- 2) At nominal voltage and no transient suppression circuit.
- 3) The value is measured when voltage drops suddenly from nominal voltage to 0 VDC and coil is not paralleled with suppression circuit.
- 4) Since it is an environmental friendly product, please select lead-free solder when welding. The recommended soldering temperature is 240°C to 260°C.

## CONTACT DATA<sup>1)</sup>

Load voltage	Load type	Load current (A)			On/Off ratio		Electrical life (OPS)	Contact material	
		1C		1A	On (s)	Off (s)			
		NO	NC	NO					
12VDC	Resistive	Make	15	12	20	1.5	1.5	1×10 <sup>5</sup>	AgNi0.15
		Break	15	12	20	1.5	1.5		

1) When the load requirement is different from content of the table above, please contact Hongfa for relay application support.

## COIL DATA

at 20°C

Nominal voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (Ω±10%)	Power consumption (W)	Max. allowable overdrive voltage <sup>1)</sup> (VDC)	
					20°C	85°C
12	7.2	1.2	225	0.8	20	14
24	14.4	2.4	360	0.8	40	28

1) Max. allowable overdrive voltage is stated with no load applied and minimum coil resistance.



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2005 Rev. 1.10

## ORDERING INFORMATION

Type	HFKE <sup>1)</sup> /	012	1H	S	XXX
Coil voltage	012: 12VDC 024: 24VDC				
Contact arrangement	H: 1 Form A Z: 1 Form C				
Structure	S: Sealed IP67 Nil: Flux proof				
Customer special code	e.g. 555 stands for RoHS & ELV compliant				

1) HFKE is an environmental friendly product, please mark special code (555) when order.

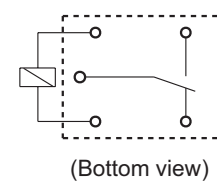
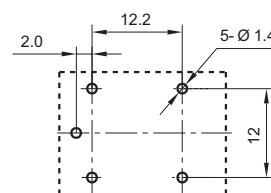
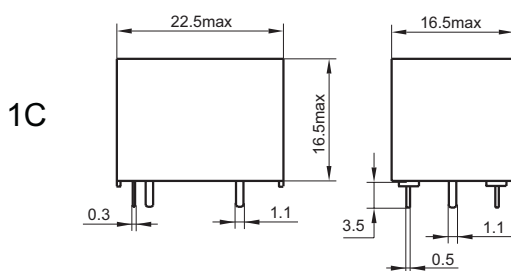
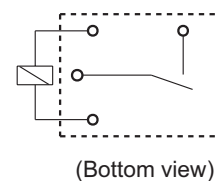
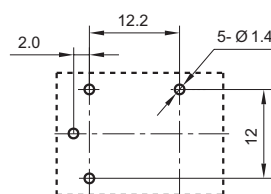
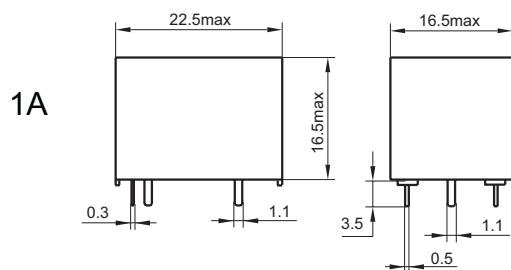
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

PCB Layout

Wiring Diagram



### 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.

© 2005 Xiamen Hongfa Electroacoustic Co., Ltd. All rights of Hongfa are reserved.