

# HFKP

# AUTOMOTIVE RELAY



### Typical Applications

Turning lamp, dangerous signal & scram lamp control, Audio system, Air-conditioning, Magnetic valves control, Low temperature control, Seat adjustment, Window defoggers, Starter solenoid switches, Anti-theft lock

### Features

- Switching capacity up to 45 A
- SPST-NO & SPDT contact arrangement
- PC board terminals
- Two pinning out choices
- Open and sealed IP67 available types

### CONTACT DATA

Contact Arrangement	1A, 1C
Max. switching current	60A(Inrush Current:100A)
Max. switching voltage	75VDC
Contact Rating	1A: 45A 14VDC 1C: 45A(NO) / 30A (NC) 14VDC
Max. switching power	630W
Contact Material	AgNi, AgSnO <sub>2</sub>
Initial Contact Resistance	100mΩ
Mechanical life	1 x 10 <sup>7</sup> OPS
Electrical life	1x 10 <sup>6</sup> OPS

**Note (1)** : Inrush current for lamp load

### CHARACTERISTICS

Initial Insulation Resistance	500MΩ, 500VDC
Dielectric Strength	500VAC
Operate time (at nomi. Volt.)	Max. 5ms
Release time (at nomi. Volt.)	Max. 3ms
Power Consumption	1.6W / 1.2W
Destructive	1.27mm, 10 to 40Hz; 40 to 70Hz, 50m/s <sup>2</sup> 0.5mm, 70 to 100Hz; 100 to 500Hz, 100m/s <sup>2</sup>
Shock Resistance	200 m/s <sup>2</sup>
Storage Temperature	-40°C to +155°C
Temperature	-40°C to +125°C
Unit weight	20g
Termination	PCB
Construction	Sealed IP67 & Open

### COIL

Coil power	1.2W to 1.6W
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### COIL DATA

#### Standard Type

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max.Allowable Overdrive VDC		Coil Resistance Ω
			23°C	85°C	
6	3.3	0.6	9.0	6.5	19
12	6.8	1.2	19.6	14.3	90
24	13.9	2.4	39.3	28.6	362

#### Sensitive Type

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max.Allowable Overdrive VDC		Coil Resistance Ω
			23°C	85°C	
6	4.5	0.6	11	8.0	30
12	9.0	1.2	22.1	16.2	120
24	19.2	2.4	44.3	32	480



HONGFA RELAY  
ISO9001、ISO/TS16949、ISO14001 CERTIFIED

VERSION: EN02-20040601

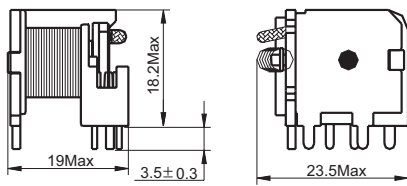
## ORDERING INFORMATION

Type	HFKP /		012	1H	1	T	S	XXX
Coil voltage	6, 12, 24VDC							
Contact arrangement	1H:1 Form A 1Z:1 Form C							
Version	1: U.S.A. Open Model 2: U.S.A. Sealed Model 3: European Open Model 4: European Sealed Model 5: U.S.A. Sealed Model, 3 yoke terminals 6: European Sealed Model, 3 yoke terminals							
Contact Material	T: AgSnO <sub>2</sub> Nil: AgNi							
Coil Power	S: Sensitivity (1.2W) Nil: standard (1.6W)							
Customer special request code:								

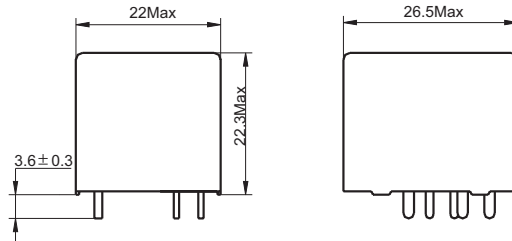
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

### Outline Dimensions

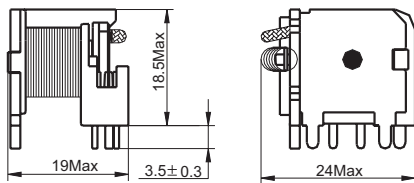
U.S.A. Open Model (-1)



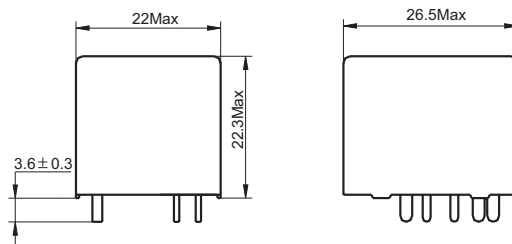
U.S.A. Sealed Model (-2)



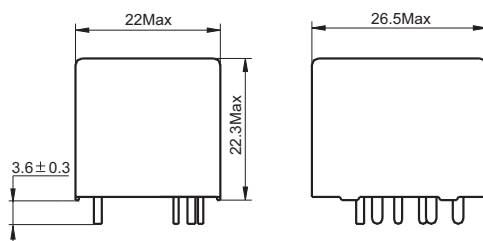
European Open Model (-3)



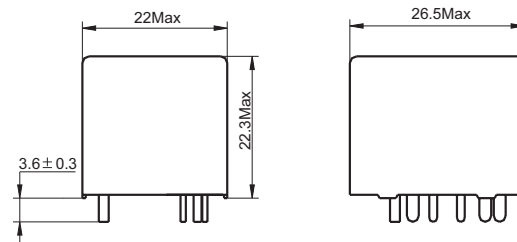
European Sealed Model (-4)



U.S.A. Sealed Model with the 3rd yoke terminal showed broken lines. (-5)



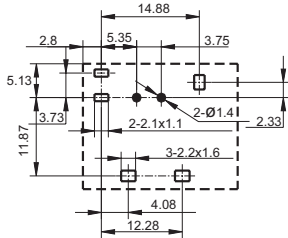
European Sealed Model with the 3rd yoke terminal showed broken lines. (-6)



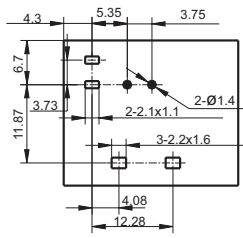
# OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

## PC Board Layout

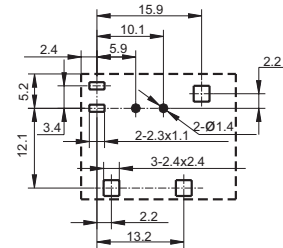
U.S.A. Open Model (-1)



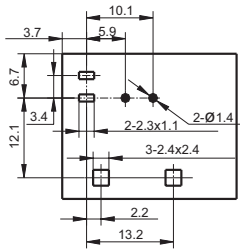
U.S.A. Sealed Model (-2)



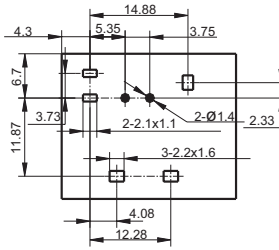
European Open Model (-3)



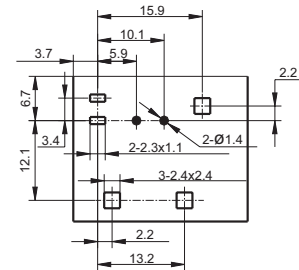
European Sealed Model (-4)



U.S.A. Sealed Model (-5)

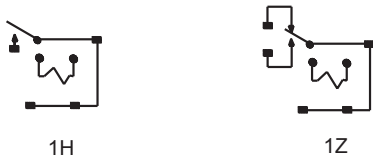


European Sealed Model (-6)



## Wiring Diagram

-1/3, -5/6



1H

1Z

1H (1 Form A)

1Z (1 Form C)

-2/4



1H

1Z

1H (1 Form A)

1Z (1 Form C)

## CHARACTERISTICS CURVE

