

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 ₂
Initial Contact Resistance	100mΩ
Mechanical life	1 x 10 ⁷ OPS
Electrical life	1x 10 ⁶ 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 ² 0.5mm, 70 to 100Hz; 100 to 500Hz, 100m/s ²
Shock Resistance	200 m/s ²
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
------------	--------------

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



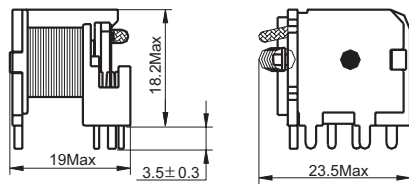
ORDERING INFORMATION

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 ₂ Nil: AgNi						
Coil Power	S: Sensitivity (1.2W) Nil: standard (1.6W)						
Customer special request code:							

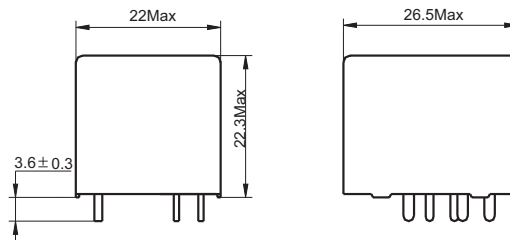
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Outline Dimensions

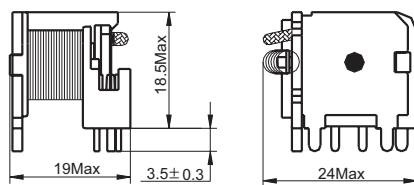
U.S.A. Open Model (-1)



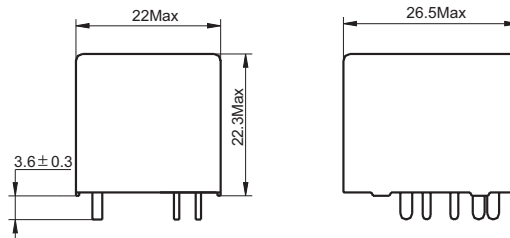
U.S.A. Sealed Model (-2)



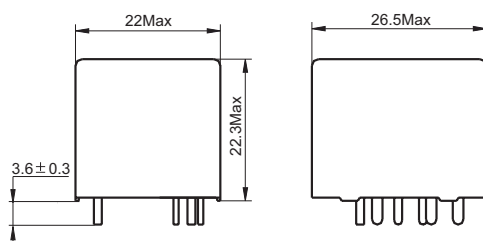
European Open Model (-3)



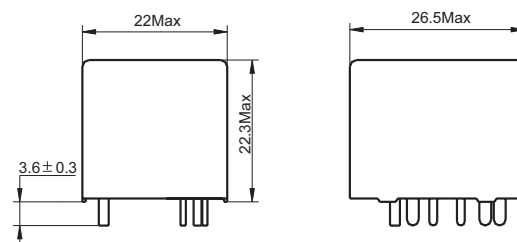
European Sealed Model (-4)



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



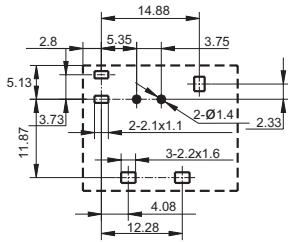
European Sealed Model with the 3rd yoke terminal showed broken lines. (-6)



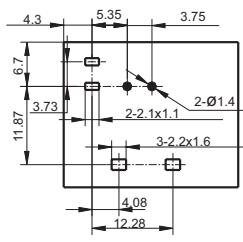
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

PC Board Layout

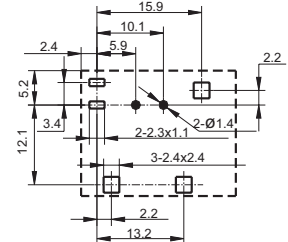
U.S.A. Open Model (-1)



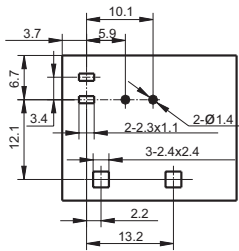
U.S.A. Sealed Model (-2)



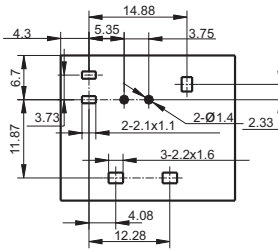
European Open Model (-3)



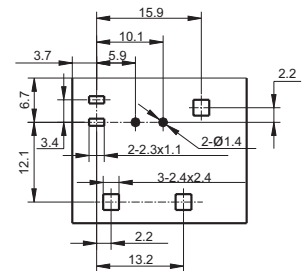
European Sealed Model (-4)



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



European Sealed Model (-6)



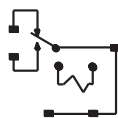
Wiring Diagram

-1/3, -5/6



1H

1H (1 Form A)



1Z

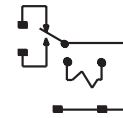
1Z (1 Form C)

-2/4



1H

1H (1 Form A)



1Z

1Z (1 Form C)

CHARACTERISTICS CURVE

