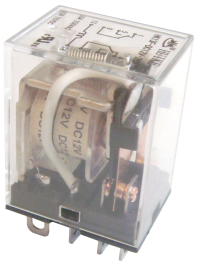
HK 13F

MINIATURE INTERMEDIATE POWER RELAY



Features

- 15A switching capability
- 1.5kV dielectric strength (between coil and contacts)
- Various terminals available
- 1 & 2 pole configurations
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (28.0 x 21.5 x 35.0)mm

■ CONTACT DATA

Contact Form	1C	2C
Contact Material		Silver Alloy
Contact Ratings	15A 250VAC/28VDC	10A 250VAC/28VDC
Max Switching Voltage		250VAC /28VDC
Max Switching Current	15A	10A
Max Switching Power	3750VAC/450W	2500VAC/280W
Contact Resistance		100MΩ(at 1A 6VDC)
Electrical Life		$1X10^5$Ops(30Ops/min)
Mechanical Life		$1X10^7$Ops(300Ops/min)

■ GENERAL DATA

Insulation Resistance		100MΩ 500VDC
Dielectric Strength	Between coil & contacts	1500VAC 1min
	Between open contacts	1000VAC 1min
Operate Time		Max. 25ms
Release Time		Max. 25ms
Temperature Range		- 40℃ to +70℃
Shcok Resistance	Functional	$98m/s^2$ (10g)
	Destructive	$980m/s^2$ (100g)
Vibration Resistance		10 to 55Hz 1.5mm
Humidity		40% to 85% RH
Weight		Approx. 35g
Safety Standard		CUL On Pending

■ COIL DATA

Nominal Voltage (VDC)	Coil Resistance at 20℃ ± 10%(Ω)	Max Operate Voltage (VDC)	Min Release Voltage (VDC)	Max Applicate Voltage (VDC)
	0.9W			
5	27.5	4.00	0.50	5.50
6	40	4.80	0.60	6.60
9	90	7.20	0.90	9.90
12	160	9.60	1.20	13.20
24	640	19.20	2.40	26.40
48	2600	38.40	4.80	52.80
110	13500	88.00	11.00	121.00
Nominal Voltage (VAC)	Coil Resistance at 20℃ ± 10%(Ω)	Max Operate Voltage (VAC)	Min Release Voltage (VAC)	Max Applicate Voltage (VAC)
	1.3VA			
6	27.7	4.80	1.80	6.60
12	111	9.60	3.60	13.20
24	443	19.20	7.20	26.40
48	1772	38.40	14.40	52.80
120	11077	96.00	36.00	132.00
220/240	44307	176.00	66.00	264.00

ORDERING INFORMATION

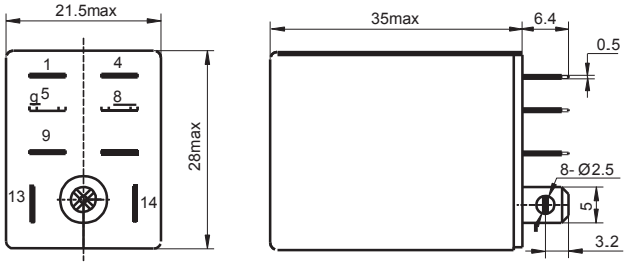
HK13F	-	DC	6V	-	F	D	1C	X	X	X		
											Special request code	G:RoHS
											Special request code	NIL: Standard L: with LED selection
											Mounting termination	NIL: PCB P: PLUG-IN F: Flange-mounting
											Contact Form	1C 2C NIL:1C
											Coil Power	NIL: DC:0.9W AC:1.3VA
											Type of Sealing	F: Dust Cover Type
											Coil Voltage	DC:5V 6V 9V 12V 24V 48V 110V AC:6V 12V 24V 120V 220/240V
											Coil Type	DC AC
											Type	HK13F

OUTLINE DIMENSIONS, WIRINGDIAGRAM AND PC BOARD LAYOUT

Unit: mm

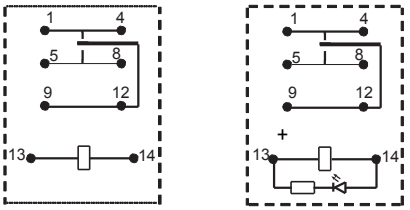
1C PLUG-IN

Outline Dimensions



Wiring Diagram

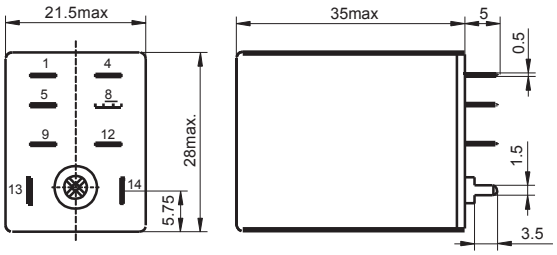
(Bottom view)



Remark: For AC parts with diode, the positive and negative pole markings on wiring diagram are not applicable.

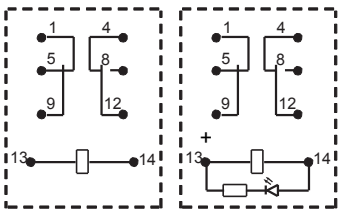
2C PCB

Outline Dimensions



Wiring Diagram

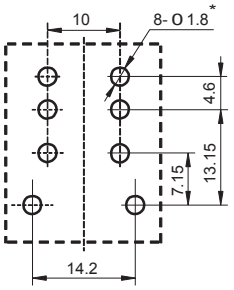
(Bottom view)



Remark: For AC parts with diode, the positive and negative pole markings on wiring diagram are not applicable.

PCB Layout

(Bottom view)



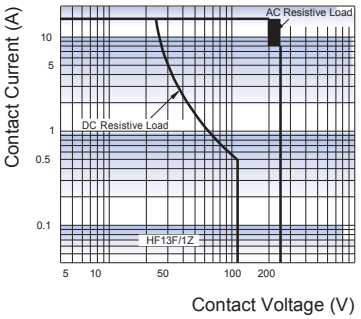
*: Please adjust the site of this diameter according to the actual applition.

Remark: 1) 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.

2) The tolerance without indicatingfor PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

MAXIMUM SWITCHING POWER(1C)



MAXIMUM SWITCHING POWER(2C)