

# HKV3

# AUTOMOTIVE RELAY



### Features

- 40A switching capability
- PCB terminals
- Two pin layout choices
- 1 Form A & 1 Form C contact arrangement
- Unenclosed and plastic sealed types available
- RoHS compliant
- Outline Dimensions:(26.0X21.0X20.5)mm

### CONTACT DATA

Contact Form	1A 1C
Contact Material	Silver Alloy
Contact Ratings	1A: 40A 14VDC 1C: 30A/40A 14VDC
Max Switching Voltage	30VDC
Max Switching Current	40A
Max Switching Power	560W
Contact Resistance	100MΩ(at 1A 6VDC)
Electrical Life	1X10 <sup>5</sup> Ops(30Ops/min)
Mechanical Life	1X10 <sup>7</sup> Ops(300Ops/min)

### GENERAL DATA

Insulation Resistance	100MΩ 500VDC	
Dielectric Strength	Between coil & contacts	750VAC 1min
	Between open contacts	500VAC 1min
Operate Time	Max. 10ms	
Release Time	Max. 10ms	
Temperature Range	- 40°C to +85°C	
Shock Resistance	Functional	98m/s <sup>2</sup> (10g)
	Destructive	980m/s <sup>2</sup> (100g)
Vibration Resistance	10 to 55Hz 1.5mm	
Humidity	40% to 85% RH	
Weight	Approx. 21g	
Safety Standard		

### COIL DATA

Nominal Voltage (VDC)	Coil Resistance at 20°C ± 10%(Ω)		Max Operate Voltage (VDC)	Min Release Voltage (VDC)	Max Applicate Voltage (VDC)
	1.6W	1.9W			
3	5.7	4.8	1.95	0.30	3.90
5	15.7	13.2	3.25	0.50	6.50
6	22.5	19	3.90	0.60	7.80
9	50.7	42.7	5.85	0.90	11.70
12	90	75.8	7.80	1.20	15.60
24	360	303.2	15.60	2.40	31.20

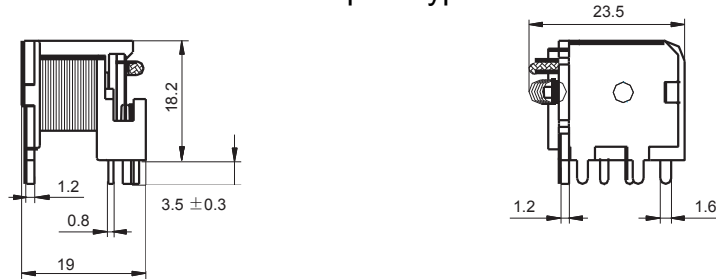
## ORDERING INFORMATION

HK V3	-	DC	6V	-	S	D	A	X	X		
										Special request code	G:RoHS
										Mounting termination	NIL: U.S.A. Type E: Europe Type
										Contact Form	C A B NIL:C
										Coil Power	H:1.6W D:1.9W
										Type of Sealing	K:Open Type S:Plastic Sealed Type
										Coil Voltage	DC:6V 9V 12V 24V
										Coil Type	DC
										Type	HK V3

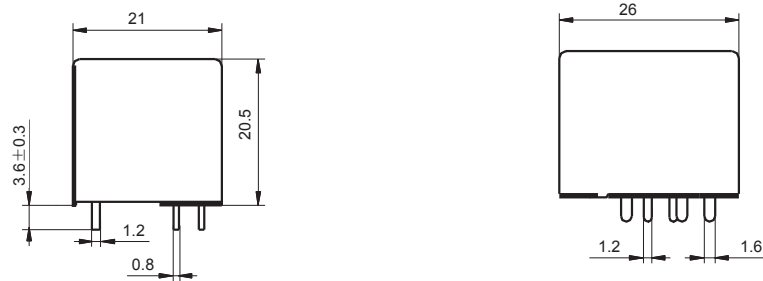
Notes: 1) If water cleaning is required after the relay is assembled on PCB, please contact us for suggestion about suitable parts.  
 2) For unenclosed type, because there is no cover protection, the products may be contaminated by particles during transportation, assembly or usage which may cause relay failure. So the products should be effectively protected at customer side. Ever-way suggest to use sealed type if no other special requirements.

Outline Dimensions

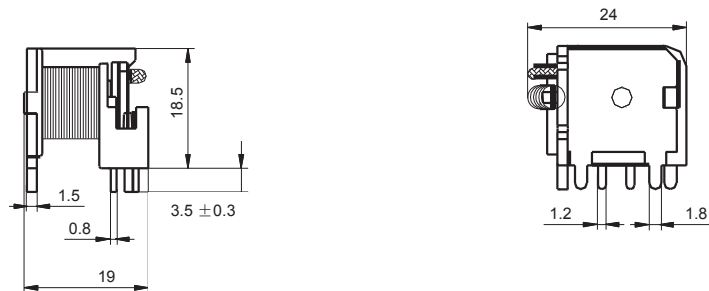
U.S.A. Open Type



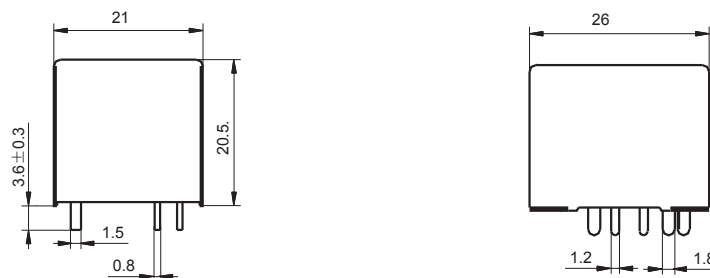
U.S.A. Plastic Sealed Type



European Open Type

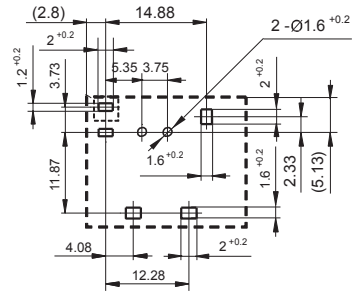


European Plastic Sealed Type

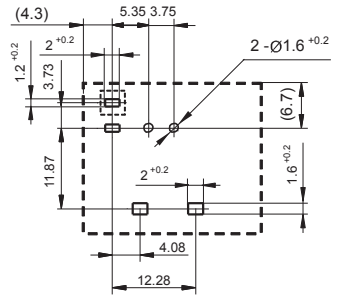


PCB Layout (Bottom view)

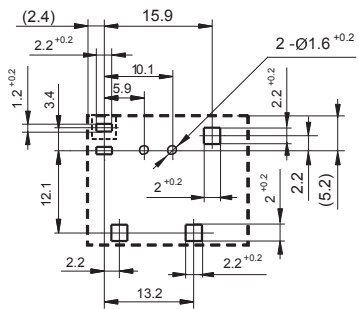
U.S.A. Open Type



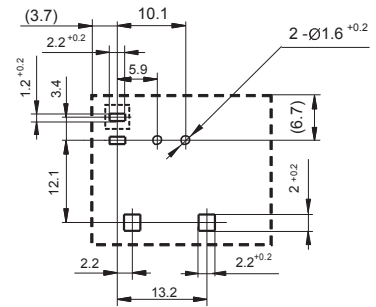
U.S.A. Plastic Sealed Type



European Open Type



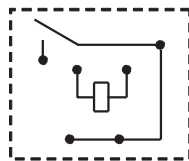
European Plastic Sealed Type



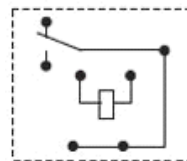
Remark: 1) The additional tin top is max. 1mm.  
2) The tolerance without indicating is always ±0.1mm.

Wiring Diagram (Bottom view)

1A

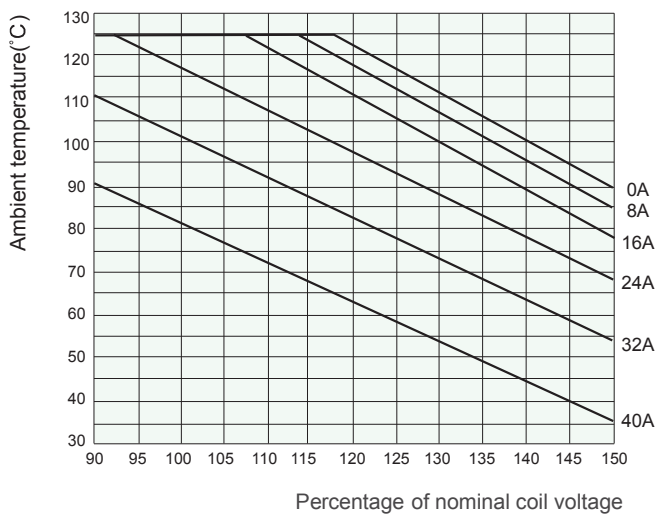


1C



CHARACTERISTIC CURVES

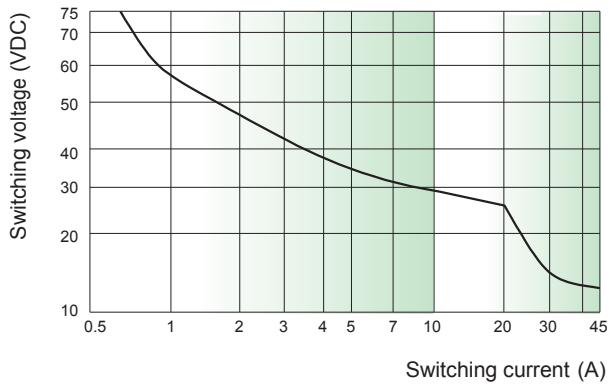
1. Coil operating voltage range



- 1) This chart takes sensitive unenclosed version as example.
- 2) The maximum allowable coil temperature is 180°C. For the coil temperature rise which is measured by resistance is average value, we recommend the coil temperature should be below 170°C under the different application ambient, different coil voltage and different load etc.
- 3) If the actual operating coil voltage is out of the specified range, please contact Ever-way for further details.

## CHARACTERISTIC CURVES

### 2. Load limit curve (at 23°C)



- 1) This chart takes NO contact, Resistive load as example.
- 2) The load and electrical endurance tests are made according to "CONTACT DATA" parameters' table. If actual load voltage, current operate frequency, or ambient temperature is different from "CONTACT DATA" table, please arrange corresponding tests for confirmation.

#### 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 tight position to choose the suitable product for their own application. If there is any query, please contact Ever-way for the technical service. However, it is the user's responsibility to determine which product should be used only.