

**K4N 系列开环型霍尔电流传感器**  
**K4N Series Open Loop Mode**  
**Hall Effect Current Sensor**

正角电子™



K4N 系列开环型霍尔电流传感器的初、次级之间是绝缘的，用于控制、测量直流、交流和脉冲电流。

K4N series hall effect current sensor is an open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.



**电参数 Electrical data (Ta=25°C ± 5°C, RL=2KΩ, CL=10000PF)**

Type	K4N-200A	K4N-400A	K4N-600A	K4N-800A	K4N-1000A	K4N-1500A	单位 Unit
额定输入电流(Ipn) Rated current(Ipn)	±200	±400	±600	±800	±1000	±1500	A
测量电流范围(Ip) Measure range(Ip)	±400	±800	±1200	±1600	±2000	±2000	A
额定输出电压 Rated output	@Ip=±Ipn ±4±1%						V
电源电压 Supply voltage	±12, ±15						V
功耗电流 Power Consumption	<25						mA
失调电压 Offset voltage	@Ip=0 ±25						mV
磁失调电压 Magnetic offset	@Ip=±Ipn-0 ±30						mV
失调电压温漂 Offset drift	@ -40~+85°C ≤±1						mV/°C
输出电压温漂 Output drift	@ -40~+85°C ≤±1						mV/°C
线性度 Linearity	@Ip=0-±Ipn ≤1						%FS
响应时间 Response time	@50A/μS, 10%-90% ≤5						μs
绝缘电压 Galvanic isolation	@ 50HZ,AC,1min 5						KV

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**应用 Applications**

- 变频调速系统

Variable speed drives

- 电焊机

Welding machine

- 通讯电源

Battery supplied applications

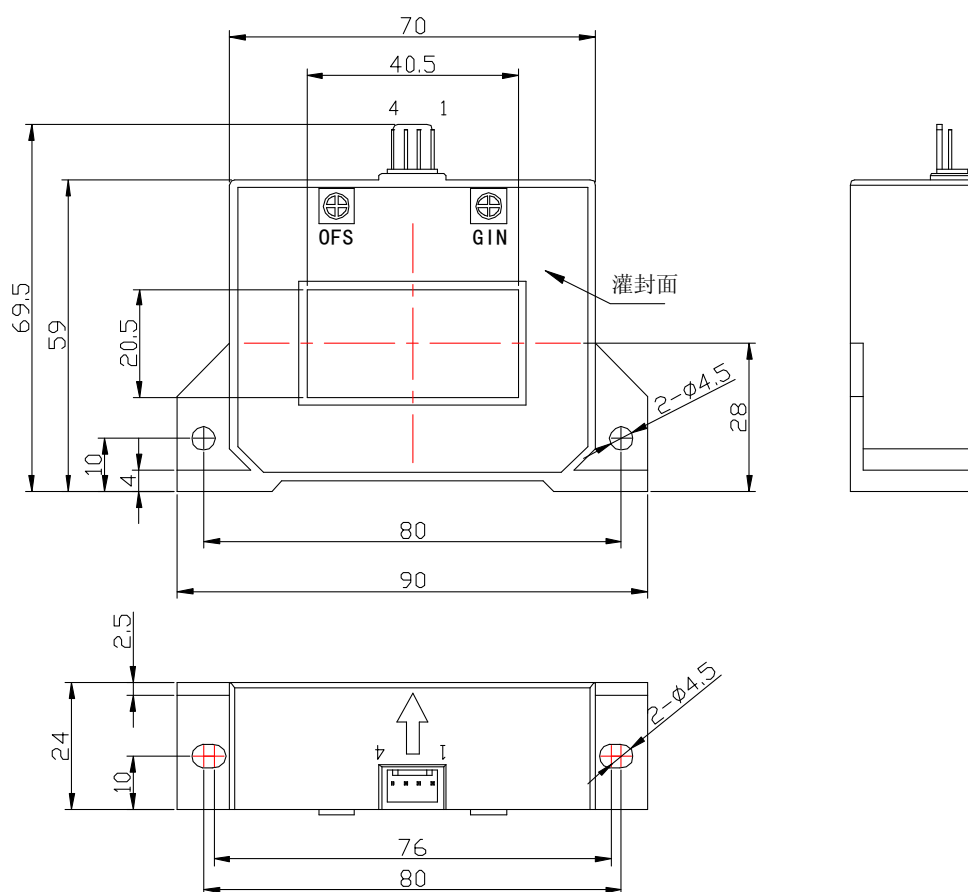
- 不间断电源 UPS

Uninterruptible Power Supplies (UPS)

- 电化学

Electrochemical

**结构参数 Mechanical dimension(for reference only)**



Remarks:

1. All dimensions are in mm.
2. General tolerance  $\pm 1$ mm.
3. Elucidation: 1: +15V 2: -15V 3: V<sub>OUT</sub> 4: 0V

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**使用说明 Directions for use**

1. 当待测电流从传感器穿过，即可在输出端测得电压大小。(注意：错误的接线可能导致传感器损坏)

When the current will be measured goes through a sensor, the voltage will be measured at the output end.

(Note: The false wiring may result in the damage of the sensor)

2. 可按用户需求定制不同额定输入电流和输出电压的传感器。

Custom design in the different rated input current and the output voltage are available.

**执行标准 Standards**

- UL94-V0.
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

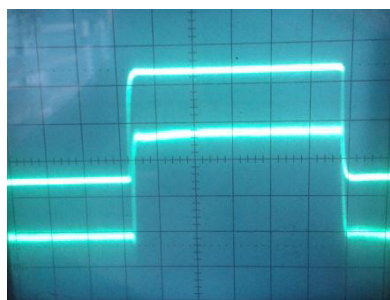
**总体参数 General date**

	数值 Value	单位Unit
工作温度 (TA) Operating temperature	-40 to +85	℃
储存温度 (TS) Storage temperature	-40 to +125	℃
毛重(约) (M) Mass(approx)	230	g

**特性图 Characteristics chart**

脉冲电流信号响应特性

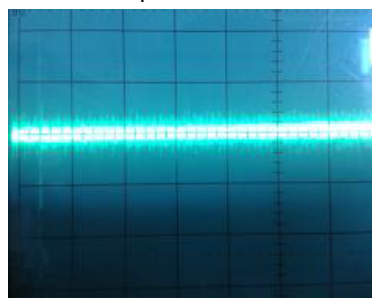
Pulse current signal response characteristic



输入信号  
( Input signal )  
输出信号  
( Output signal )

抗脉冲电压干扰特性

Effects of impulse noise



输出电压  
(Output voltage)