

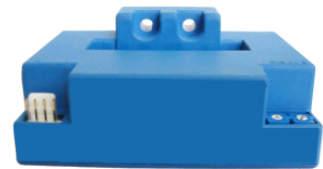
**K4X 系列开环型霍尔电流传感器**  
**K4X Series Open Loop Mode**  
**Hall Effect Current Sensor**

正角电子™



K4X 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。

K4X 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                              | K4X-200A            | K4X-400A | K4X-600A | K4X-800A | K4X-1000A | K4X-2000A | 单位<br>Unit |
|-----------------------------------|---------------------|----------|----------|----------|-----------|-----------|------------|
| 额定输入电流(Ipn)<br>Rated current(Ipn) | ±200                | ±400     | ±600     | ±800     | ±1000     | ±2000     | A          |
| 测量电流范围(Ip)<br>Measure range(Ip)   | ±400                | ±800     | ±1200    | ±1600    | ±2000     | ±2500     | A          |
| 额定输出电压<br>Rated output            | @Ip=±Ipn ±4±1%      |          |          |          |           |           | V          |
| 电源电压<br>Supply voltage            | ±12, ±15            |          |          |          |           |           | V          |
| 功耗电流<br>Power Consumption         | <25                 |          |          |          |           |           | mA         |
| 失调电压<br>Offset voltage            | @Ip=0 ±25           |          |          |          |           |           | mV         |
| 磁失调电压<br>Magnetic offset          | @Ip=±Ipn-0 ±30      |          |          |          |           |           | mV         |
| 失调电压温漂<br>Offset drift            | @ -40~+85°C ≤±1     |          |          |          |           |           | mV/°C      |
| 输出电压温漂<br>Output drift            | @ -40~+85°C ≤±1     |          |          |          |           |           | mV/°C      |
| 线性度<br>Linearity                  | @Ip=0-±Ipn ≤1       |          |          |          |           |           | %FS        |
| 响应时间<br>Response time             | @50A/μS, 10%-90% ≤5 |          |          |          |           |           | μs         |
| 绝缘电压<br>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

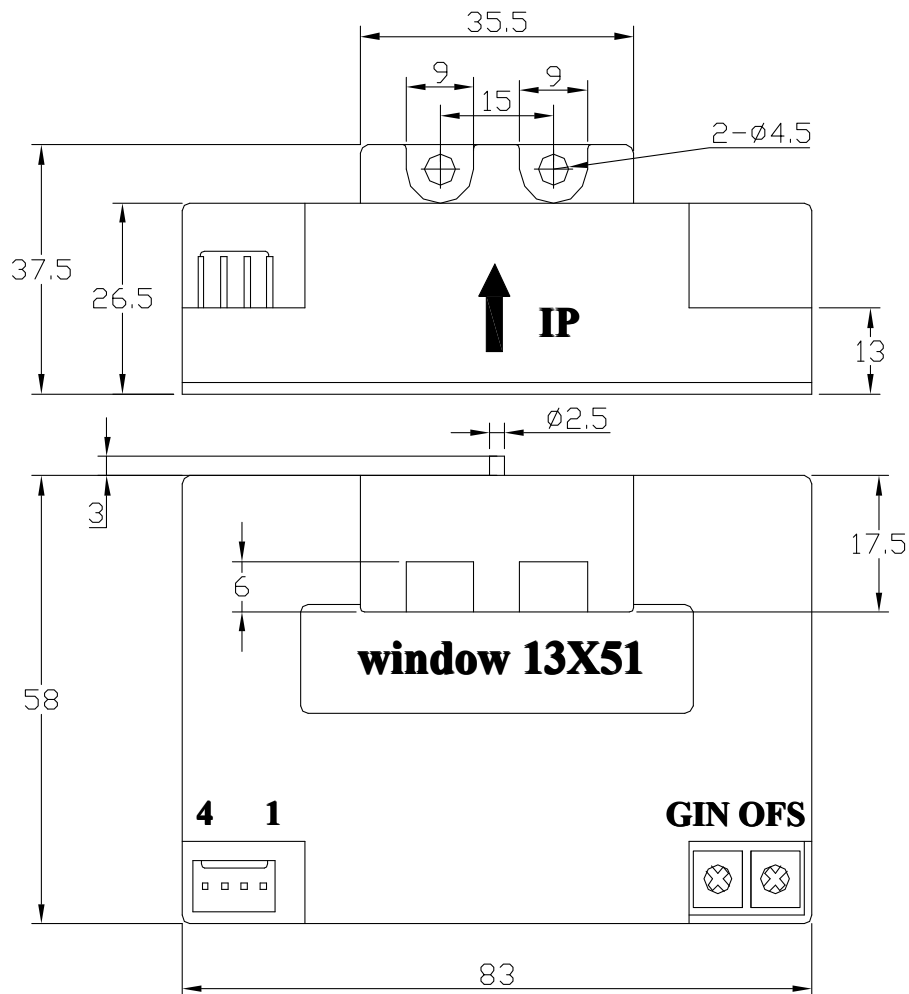
- 不间断电源 UPS

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

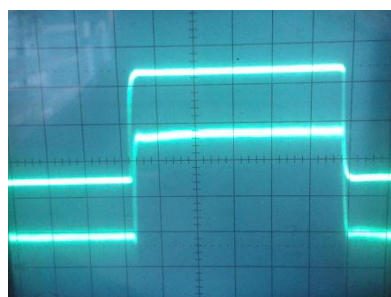
**总体参数 General date**

|                                    | 数值 Value    | 单位Unit |
|------------------------------------|-------------|--------|
| 工作温度 (TA)<br>Operating temperature | -40 to +85  | ℃      |
| 储存温度 (TS)<br>Storage temperature   | -40 to +125 | ℃      |
| 毛重(约) (M)<br>Mass(approx)          | 260         | g      |

**特性图 Characteristics chart**

脉冲电流信号响应特性

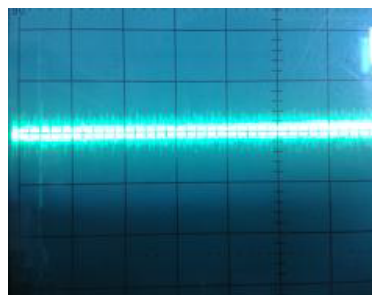
Pulse current signal response characteristic



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)