



# KLY-HK-BY09 Series Open Loop Hall Current Sensor

## KLY-HK-BY09系列开环霍尔电流传感器



KLY-HK-BY09 Series 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 current

KLY-HK-BY09 系列传感器是应用霍尔效应开环原理的电流传感器，应用在电隔离条件下测量单向直流电流。

### Products Features

Excellent accuracy High immunity to external interference  
 Very good linearity Low temperature drift  
 Optimized response time Wide frequency bandwidth  
 No insertion losses

### 产品特点

精度高 抗干扰能力强  
 良好的线性度 低温度漂移  
 最佳的响应时间 频带宽  
 无插入损耗

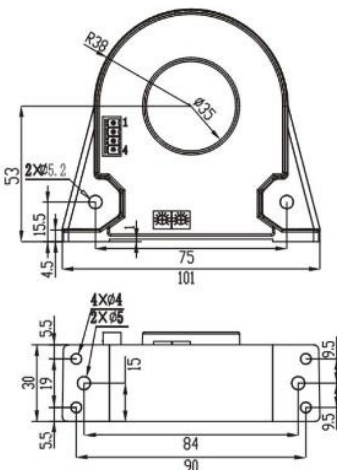
### Instructions 使用说明

1. Incorrect wiring may cause the damage of sensor.  
1. 保证接线正确，错误的接线可能会导致传感器损坏。
2. When the measured current through the center hole of the sensor, the current will be measured at the output end.  
2. 当待测电流通过传感器的穿心孔，可在输出端测得电流大小。
3. The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.  
3. 母排完全充满初级穿孔时动态表现(Di/dt和响应时间)为最佳。
4. User can adjust the output extent of sensor if necessary.  
4. 传感器输出幅度可根据用户需求进行适当的调节。
5. Rated input current and output voltage of sensor can be customized.  
5. 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。

### Electrical Data(Ta=25°C±5°C)电气参数

Type型号	KLY-HK-BY09-0N1C					
Parameters参数						
Rated input 额定测量电流 I <sub>FN</sub> DC	100A	200A	400A	600A	800A	1000A
Measure range 测量范围 I <sub>r</sub> DC	0~200A	0~400A	0~800A	0~800A	0~1600A	0~2000A
Rated output voltage 额定输出电压 V <sub>s</sub>	+5V(±1%)					
Supply voltage 电源电压 V <sub>CC</sub>	+12V(±5%)					
Current consumption 功耗 I <sub>c</sub>	≤20mA					
Offset voltage 零点失调电压 V <sub>0</sub>	<±20mV					
Offset voltage drift 失调电压温漂 V <sub>OT</sub>	@ I <sub>r</sub> =0 T <sub>r</sub> = -40°C ~ +85°C ≤ ± 1 mV/°C					
Hysteresis offset voltage 磁失调电压 V <sub>OH</sub>	<±25mV					
Linearity 线性度 ε <sub>L</sub>	<1%FS					
Response time 响应时间 T <sub>R</sub>	@ 50A/μS, 10% - 90% ≤ 3 μS					
Galvanic isolation 绝缘电压 V <sub>D</sub>	@ 50HZ, AC, 1min 3kV					
Frequency bandwidth 频带宽度	@ -3db DC~20kHz					
Load resistance 负载电阻 R <sub>M</sub>	≥10KΩ					
Operating temperature 工作环境温度 T <sub>A</sub>	-40°C ~ +85°C					
Storage temperature 贮存环境温度 T <sub>S</sub>	-40°C ~ +100°C					
Mass(approx) 毛重(约) m	340g					
Standards 执行标准	JB/T 7490-2007					

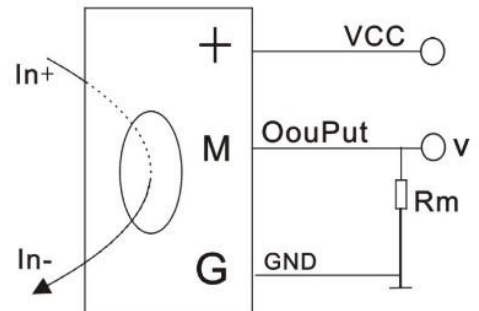
### Mechanical Dimension(for Reference Only) 结构参数



#### 管脚定义 Pin Definition

1. + (Vcc)
2. G (GND)
3. M (Vout)
4. G (GND)

### Circuit Connection Diagram 电路连接示意图



Casing material 外壳材料: 符合UL94-V0