



# KLY-HB-BB05 Series Closed Loop Hall Current Sensor

## KLY-HB-BB05系列闭环型霍尔电流传感器



KLY-HB-BB05 series current sensor is a closed loop device based on the measuring principle of the hall effect and null balance method, with a galvanic isolation between precision, no matter the location of primary in the hole of current sensor. It uses for precision measurement of DC, AC and pulse current.

KLY-HB-BB05系列高精度电流传感器利用霍尔闭环(磁平衡)原理, 传感器原副边是绝缘的, 无位置误差, 用于精密测量直流、交流和脉冲电流。

### Products Features

Excellent accuracy  
Very good linearity  
Optimized response time  
No insertion losses

High immunity to external interference  
Low temperature drift  
Wide frequency bandwidth

### 产品特点

精度高  
良好的线性度  
最佳的响应时间  
无插入损耗

抗干扰能力强  
低温度漂移  
频带宽

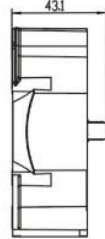
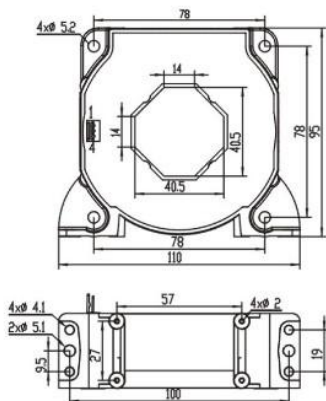
### Instructions 使用说明

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-HB-BB05-0K1A			
Parameters参数					
Rated input 额定测量电流 I <sub>PM</sub>		±1000A			
Measure range 测量范围 I <sub>r</sub>		@±24V		0 ~ ±1500A	
Rated output current 额定输出电流 I <sub>S</sub>		±200mA			
		Ta=70°C		Ta=85°C	
		Rmin	Rmax	Rmin	Rmax
Measure resistor range 测量电阻范围 With ±15V	@ ±1000Amax	0 Ω	18 Ω	0 Ω	15 Ω
	@ ±1200Amax	0 Ω	7 Ω	0 Ω	4 Ω
Measure resistor range 测量电阻范围 With ±24V	@ ±1000Amax	5 Ω	60.5 Ω	10 Ω	57.5 Ω
	@ ±1500Amax	5 Ω	24 Ω	10 Ω	21 Ω
Turns ratio 匝比(N <sub>r</sub> /N <sub>s</sub> )		1:5000			
Overall accuracy 总体精度 x		±0.4%			
Supply voltage 电源电压 V <sub>CC</sub>		±15V~±24V(±5%)			
Current consumption 功耗电流 I <sub>c</sub>		28(@±24V)+I <sub>S</sub> mA			
Offset current 零点失调电流 I <sub>0</sub>		±0.4mA			
Offset current drift 零点失调电流温漂 I <sub>0T</sub>	@ -10°C ~ 85°C	≤ ±0.5mA			
	@ -40°C ~ -10°C	≤ ±0.8mA			
Linearity 线性度 ε <sub>L</sub>		<0.1%FS			
Response time 响应时间 T <sub>R</sub>		@100A/μS, 10%-90%	<1 μS		
Galvanic isolation 绝缘电压 V <sub>D</sub>		@50HZ, AC, 1min	3kV		
Frequency bandwidth 频带宽度		@ -3db	DC~150KHz		
Operating temperature 工作环境温度 T <sub>A</sub>		-40~+85°C			
Storage temperature 储存环境温度 T <sub>S</sub>		-40~+100°C			
Mass(approx) 毛重(约) m		560g			
Standards 执行标准		JB/T 7490-2007			

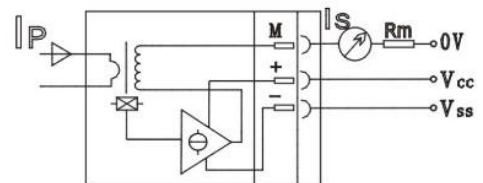
### Mechanical Dimension(for Reference Only)结构参数



### 管脚定义 Pin Definition

1. Nc
2. -(V<sub>SS</sub>)
3. M(I<sub>out</sub>)
4. +(V<sub>CC</sub>)

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



Casing material 外壳材料: 符合UL94-V0