K-EKB5S2 开环系列霍尔电流传感器

K-EKB5S2Series Open-loop Hall Current sensor

简介 Feature：

- 应用开环原理制作的霍尔电流传感器
  Open- loop current transducer using the hall effect
- 电流传感器的初、次级是绝缘的，能够测量直流，交流，脉冲等
  For the electronic measurement of currents: DC, AC,pulsed,..., with galvanic separation between primary circuit and secondary circuit
- 供电： DC +5.0V
  Supply voltage: DC +5.0V

特性与应用 Advantages & Applications:

特 性 Advantages	应 用 Applications
◊ 易安装 Easy installation	◊ 变频器应用 The application of variable frequency electrical appliances
● 低功耗 Low power consumption	● AC/DC 变速驱动 AC/DC variable-speed drive
◊ 测量范围宽 Only one design for wide current ratings range	◊ 开关电源 Switched Mode Power Supplies (SMPS)
◊ 抗干扰能力强 High immunity to external interference	● UPS 不间断电源 Uninterruptible Power Supplies (UPS)
● 无插入损耗 no insertion losses	◊ 逆变器上的应用 The applications of inverter

电气参数 Electrical data：（Ta=25°C，Vc=+5.0VDC,RL=2KΩ）

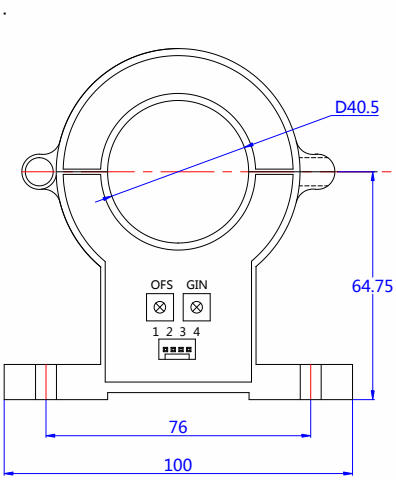
参数 Parameter / 符号 Symbol / 型号 Type		K200 EKB5S2	K400 EKB5S2	K800 EKB5S2	K1000 EKB5S2	K1500 EKB5S2	K2000 EKB5S2	Unit
额定输入 Rated input	IPN	200	400	800	1000	1500	2000	A
测量范围 Measuring range	IP	0～±200	0～±400	0～±800	0～±1000	0～±1500	0～±2000	A
输出电压 Output voltage	Vo	2.500±2.0*(IP/IPN)						V
输出电压 Output voltage	Vo	@IP=0,T=25°C	2.500					V
负载电阻 Load resistance	RL	>2						KΩ
供电电压 Supply voltage	VC	+5.0 ±5%						V
精度 Accuracy	XG	@IPN,T=25°C	< ±1.0					%
偏移电压 Offset voltage	VOE	@IP=0,T=25°C	< ±25					mV
零点温度漂移 Temperature variation of VOE	VOT	@IP=0,-40 ～ +85°C	< ±1.0					mV/℃
磁滞失调电压 Hysteresis offset voltage	VOH	@IP=0,after 1*IPN	< ±20					mV
线性度 Linearity error	εr	< 1.0						%FS
跟随精度 di/dt		> 100						A/μs
响应时间 Response time	tra	@90% of IPN	< 5.0					μs
静态功耗 Power consumption	IC	15						mA
带宽 Bandwidth	BW	@-3dB,IPN	DC-20					KHZ
绝缘电压 Insulation voltage	Vd	@50/60Hz, 1min,AC	3.0					KV

总体参数 General data：

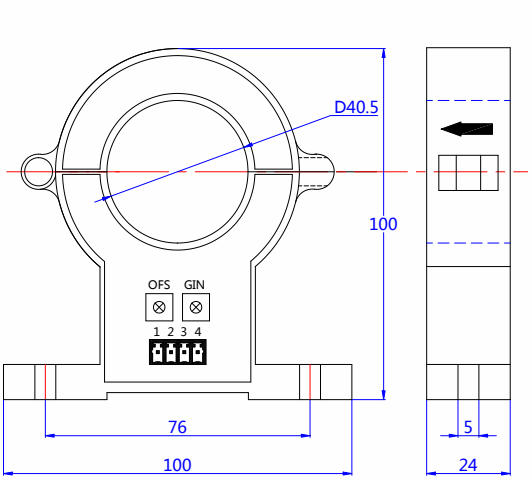
参数 Parameter	符号 Symbol	数值 Value	单位 Unit
工作温度 Operating temperature	TA	-40 ~ +85	°C
储存温度 Storage temperature	Ts	-55~ +125	°C
重量 Mass	m	120	g
外壳材料 Plastic material	PBT G30/G15，UL94- V0;		
标准 Standards	IEC60950-1:2001		
	EN50178:1998		
	SJ20790-2000		

结构参数 Dimensions(mm):

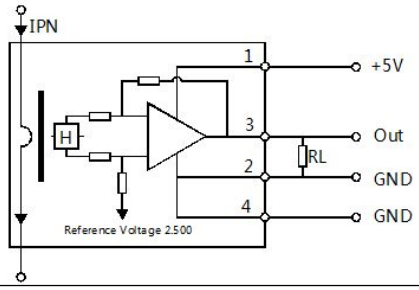
K-EKB5S2M



K-EKB5S2S



接线 Connection



公差 General tolerance

总公差

General tolerance:< ±0.5mm

初级过孔尺寸

Primary through-hole： D40.5±0.3

次级连接器型号

Connection of Secondary :

WHK-EKB5S2M:

2510-04A (Instead of Molex 5045-04A)

WHK-EKB5S2S: 15EDGK3.81-04P

备注 Remarks：

1,当被测电流通过传感器的初级引脚时，在输出端有对应的电压信号输出。（注意：错误的接线可能损坏传感器）

When the current will be measured goes through the primary pin of a sensor,the voltage will be measured at the output end.(Note:The false wiring may result in the damage the sensor).

2,可以根据客户的要求设计不同额定电流的产品，并且传感器的输出电压时可选择的；

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

3,母排完全充满孔时，动态性能最佳；

The dynamic performance is the best when the primary hole if fully filled with;

4,初级导体温度不应超过 100℃；

The primary conductor should be <100°C;