

数字漏电流传感器 Digital DC Leakage Current Sensor

KLD80AZCD12S-10mA/RS485

本产品是采用磁通门技术，用于检测直流系统漏电流的数字传感器。测量方式为穿孔式，无插入损耗，孔径为 $\phi 80\text{mm}$ ，RS485总线输出。

This product is a digital sensor using fluxgate technology for detecting the leakage current of DC system. Measurement mode is perforated, no insertion loss, aperture is $\phi 80\text{mm}$, RS485 bus output.



产品特点 Product characteristics	应用 Application
12V 单电源供电 12V single power supply - 额定电流测量范围$\pm 10\text{mA}$ Rated current measuring range $\pm 10\text{mA}$ - 工作温度范围：$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ Working temperature range: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ - 输出信号：RS485 9600bps Modbus-RTU 协议 Output signal: RS485 9600bps Modbus-RTU protocol - 原副边隔离测量 Primary secondary side isolation measurement - 连接器类型：TE/AMP 1473672-1 Connector type: TE/AMP 1473672-1	电池管理系统(SOC,SOH,SOF 等)的漏电流测量 Leakage current measurement for battery management systems (SOC,SOH,SOF, etc.)

绝对最大额定值 Absolute maximum ratings

参数 Parameter	符号 Symbol	单位 Unit	值 Value	测试条件 Test condition
冲击电压 Impulse voltage	V_c	V	32	400ms
过电压 Overvoltage	V_c	V	24	1min
负向耐压 Negative pressure resistance	V_c	V	-16	1min
爬电距离 Creepage distance	dcp	mm	33	
电气间隙 Electrical clearance	dci	mm	18	
绝缘电压 Insulation voltage	V_d	kV	4.25	@50HZ,AC,RMS,2mA,1min

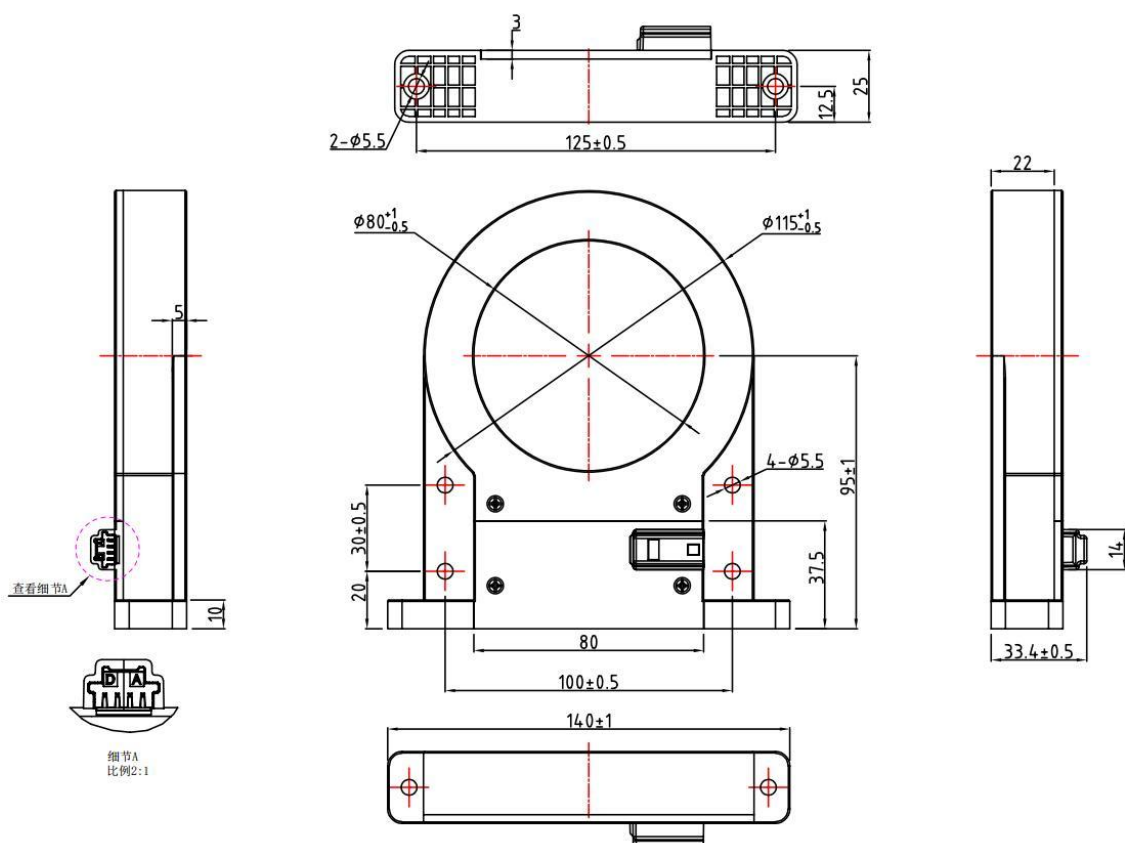
环境和机械特性 Environmental and mechanical characteristics

参数 Parameter	标志 Symbol	单位 Unit	最小值 Minimum value	典型值 Typical value	最大值 Maximum value	备注 Remark
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工作温度 Working temperature	T _A	°C	-40		85	
存储温度 Storage temperature	T _S	°C	-40		105	
质量 Quality	m	g		320		
外壳材质 Shell material	UL94 V-0					

电气参数 Electric data (T _A = 25°C ± 5°C, V _C = 12V)						
Electrical parameter						
参数 Parameter	符号 Symbol	单位 Unit	最小值 Minimum value	典型值 Typical value	最大值 Maximum value	测试条件 Test condition
额定输入电流 Nominal input current	I _{pn}	mA	-10	-	10	-
供电电源电压 Supply voltage	V _C	V	8	12	13.5	-
电源消耗电流 Power supply consumption current	I _C	mA	-	20	25	
线性度误差 Linearity error	ε	%FS	-1	-	1	
准确度误差 Accuracy error	X	%FS		±1		
磁失调电流 Magnetic offset current	I _{oe}	mA		±0.5		
噪声电流 Noise current	I _{ne}	mA		±0.15		@ I _p = 0, T _A = 25°C
温漂 Temperature drift	T _C	ppm/°C		300		

结构参数 Dimensions (in mm)

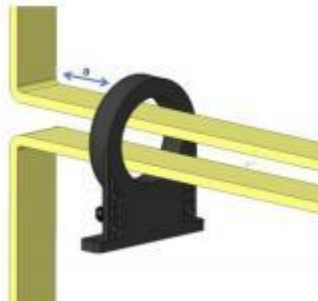
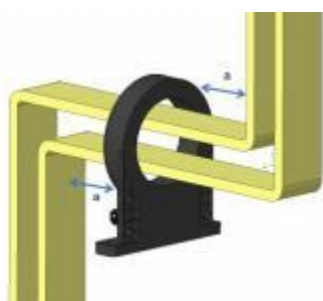


备注：所以尺寸单位 mm，通用公差 $\pm 1\text{mm}$
 Remark: All dimensions in mm, general tolerance $\pm 1\text{mm}$

安装注意事项 Installation influence

为保障传感器输出精度，在设计传感器装配环境时请参考以下示例：

To ensure the sensor output accuracy, please refer to the following example when designing the sensor assembly environment:



a(mm)*		
推荐距离 Recommended distance	精度接近极限 Accuracy approaching limit	不推荐 Not recommend
> 120	60-120	< 60

*备注：由于应用现场环境复杂示例不能涵盖所有应用条件。请在应用前测试通过最大电流时对传感器精度的影响量。

Note: Due to the complex application

environment, the example cannot cover all application conditions. Test the amount of impact on sensor accuracy when passing the maximum current before application.

产品选型表

	KLD	80A	Z	C	D12	S	10mA
漏电流传感器							
结构编号，孔径 80mm							
默认电流方向							
连接器规格							
供电电源							
D12					单 12V 供电		
D24					单 24V 供电		
通讯协议							
C					CAN 通讯		
S						485 协议	
额定电流							