

HCM—YSK系列高精度磁通门电流传感器

(HCM—YSK High-accuracy Fluxgate-effect Current Sensor Series)

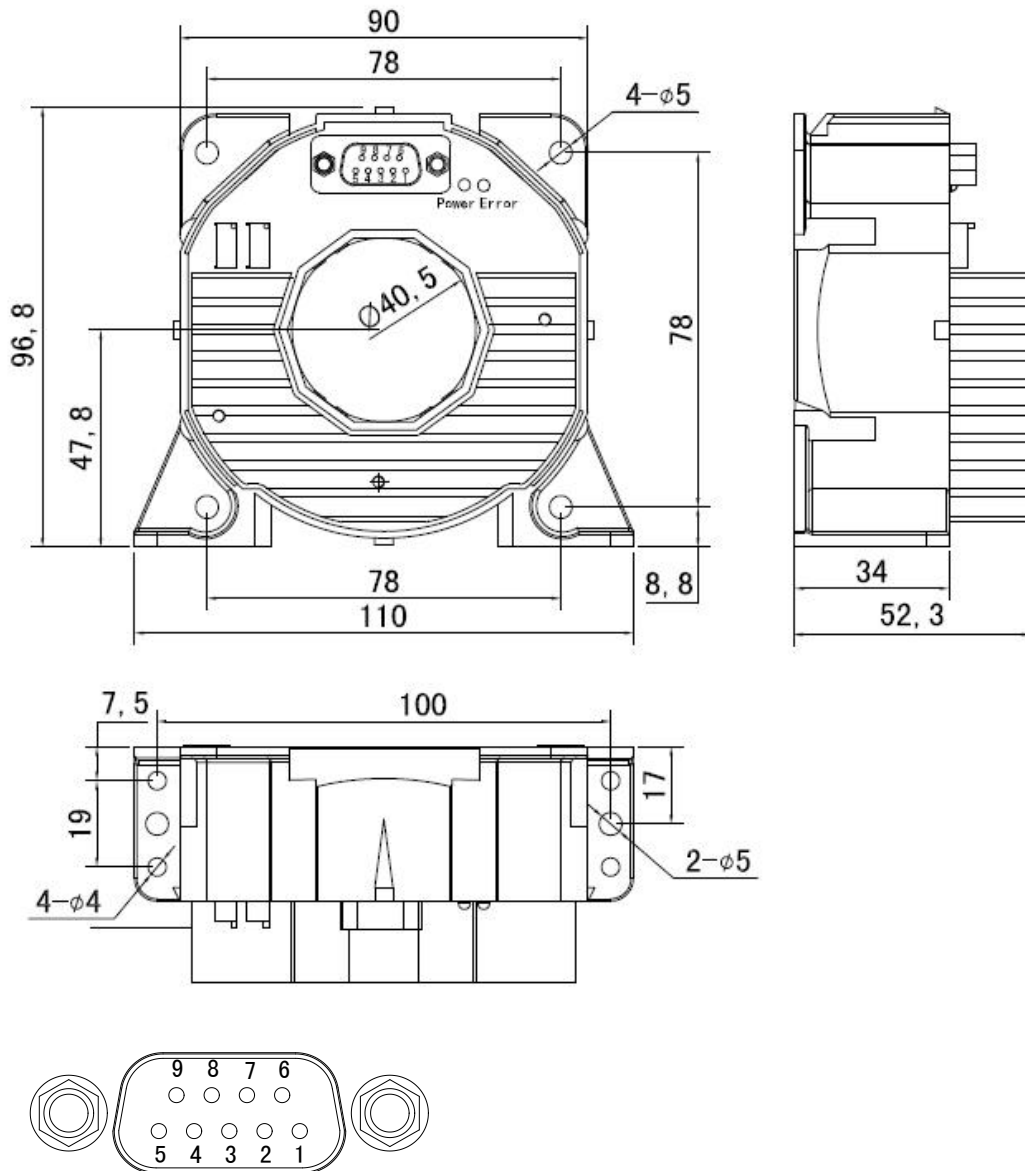
HCM-YSK 系列磁通门电流传感器的初、次级之间是绝缘的，可用于测量直流、交流和脉冲电流，具有良好的精度和线性度，可达 0.01%，可用于超高精度的电流测量。

(HCM-YSK Series Fluxgate-effect Current Sensor between primary and secondary is insulated, can be used for the measurement of DC, AC and pulse current. Good accuracy and linearity, up to 0.01%, can be used for ultra-high accuracy current measurement)

电气参数 (Electrical characteristics)				
	型号 Type	HCM500-YSK	HCM1000-YSK	
I _{pn}	额定输入电流 Rated input	500	1000	A
I _{pm}	测量电流范围 Measuring range	600	1200	A
R _m	测量电阻 Measuring resistance	@±15V max 20(max)	@±15V max 10(max)	Ω
K _N	匝比 Turns ratio	1: 2000	1: 2000	
I _{out}	输出电流 Rated output current	250	500	mA
R _s	次级线圈内阻 Secondary coil resistance	15	15	Ω
I _o	零电流失调 Zero offset current	<0.005		mA
V _c	供电电源 Supply voltage	±15±5%		V
I _c	静态功耗 Current consumption	≤30+I _{out}		mA
I _{ot}	零点温漂 Thermal drift of I _o	-40~+85℃	±0.01	mA
F	带宽 Frequency bandwidth(-3dB)	DC~100		KHz

ϵG	精度 Accuracy	± 0.01	%
ϵL	线性度 Linearity	± 0.01	%
di/dt	跟随精度 Accurately followed	> 100	A/ μS
Tr	响应时间 Response time	≤ 1	μS
Vd	绝缘电压 Insulation voltage	5.0	KV
Ta	工作温度 Ambient operating temperature	-40~+80	$^{\circ}C$
Ts	储存温度 Ambient storage temperature	-40~+85	$^{\circ}C$
M	重量 mass	620	g
	标准 Standards	EN50178\IEC61010-1\UL94-Vo\ROHS	

机械参数 Dimensions (mm)



Pin Definition Pin Definition

- | | | | | | |
|---|----|------------|---|----|--------------|
| 1 | 0 | 电源地 GND | 6 | M | 输出电流信号 |
| 2 | Nc | 空脚 | 7 | Nc | 空脚 |
| 3 | 0 | 电源地 GND | 8 | | 过载时 error 信号 |
| 4 | 0 | 电源地 GND | 9 | | +电源正 (+15V) |
| 5 | - | 电源负 (-15V) | | | |

端子标准：标准 9pin DB9 航空插接连接器

使用说明 Remarks

- 1、应用：新能源、航空、铁路、电网、汽车、不间断电源UPS、斩波器、医疗设备、整流、电源监测、电焊机、变频、开关电源、电池监测、电动机监测等领域。Application: New energy, aviation, railway, power grid, automobile, UPS, chopper, medical equipment, rectification, power monitoring, electric welding machine, frequency conversion, switching power supply, battery monitoring, motor monitoring and other fields.
- 2、传感器的输出幅度可根据用户需要进行适当调节。The amplitude of the output of the sensor can be appropriately adjusted according to user needs.
- 3、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 different rated input current and the output voltage of the sensor.
- 4、辅助电源接通后，绿灯常亮为正常工作；若接通辅助电源后绿灯不亮，应检查辅助电源是否正常。当原边电流过载时，绿灯也会熄灭，恢复正常测试范围后，绿灯会继续点亮。After the supply power is connected, the green light is always on for normal operation; If the green light does not light up after the supply power is connected, check whether the supply power is normal. When the primary current is overloaded, the green light will also go out. After returning to the normal test range, the green light will continue to light up.