

磁平衡式霍尔电流传感器

Magnetic Balance Hall Current Sensor

型号 Model: YDG-HZD-2A

$I_P = 250A$

1、概述 General

原边和副边之间是绝缘的，可用于测量直流电流。

For the electronic measurement of currents: DC, with galvanic separation between the primary circuit and the secondary circuit.

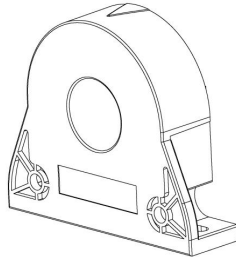
2、性能 Features

- 应用霍尔原理的闭环(补偿)电流传感器。

Closed loop(compensated) current Sensor using the Hall effect.

- 符合 UL 94-V0 标准的绝缘外壳。

Insulating plastic case recognized according to UL-94-V0.



3、优势 Advantages

- 高精度 Excellent accuracy.
- 优越的线性度 Very good linearity.
- 低温漂 Low temperature drift.
- 最佳的反应时间 Optimized response.
- 宽频带 Wide frequency bandwidth.
- 无插入损失 No insertion losses.
- 抗干扰能力强 High immunity to external interference.
- 电流过载能力 Current overload capability.

4、应用 Applications

霍尔电流传感器广泛应用于逆变装置、UPS 电源、通信电源、电焊机、电力机车、变电站、数控机床、电解电镀、微机监测、电网监控等需要隔离检测电流的设施中。

Hall Current Sensor is widely applied in establishments where isolated current need to be examined, such as inversion equipment, UPS power supplier, communication power supplier, electric welding machines, electric motor-vehicle, transformer substation, digital-controlled lathe, plating, micro-machine monitoring, electric-network monitoring, etc.

5、电性参数 Electrical data

原边额定有效值电流 Primary nominal r.m.s. current (I_P)	DC0~±250A
原边电流, 测量范围 Primary current, measuring range(Max.)	250A
副边额定有效值电流 Secondary nominal r.m.s. current (I_S)	DC0~±40mA
负载电阻 Load resistance	with ±12V @ DC200A ≤ 50Ω with ±15V @ DC250A ≤ 75Ω

注: 输入电流范围为 0~±250A 时必须使用±15V 电源。

电源电压 Supply voltage (±8%)	±12~15V Vdc
功率消耗 Current consumption (@ ± 12V $I_P = 200A$)	≤ 1W
功率消耗 Current consumption (@ ± 15V $I_P = 250A$)	≤ 1W
交流隔离耐压值 Rms voltage for AC insulation 50Hz 1min	3.0kV

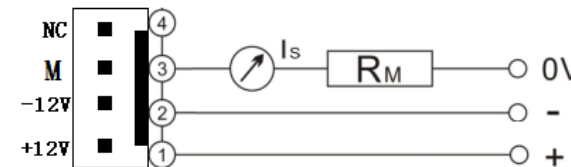
6、精度/动态参数 Accuracy / Dynamic performance data

总精度 Overall accuracy	±0.5%
响应时间 Step response time to 90% of I_P	< 2μs
di/dt 跟随精度 accurately followed	> 100A/μs
频带宽度 Frequency bandwidth (- 3dB)	DC...100kHz

7、一般参数 General data

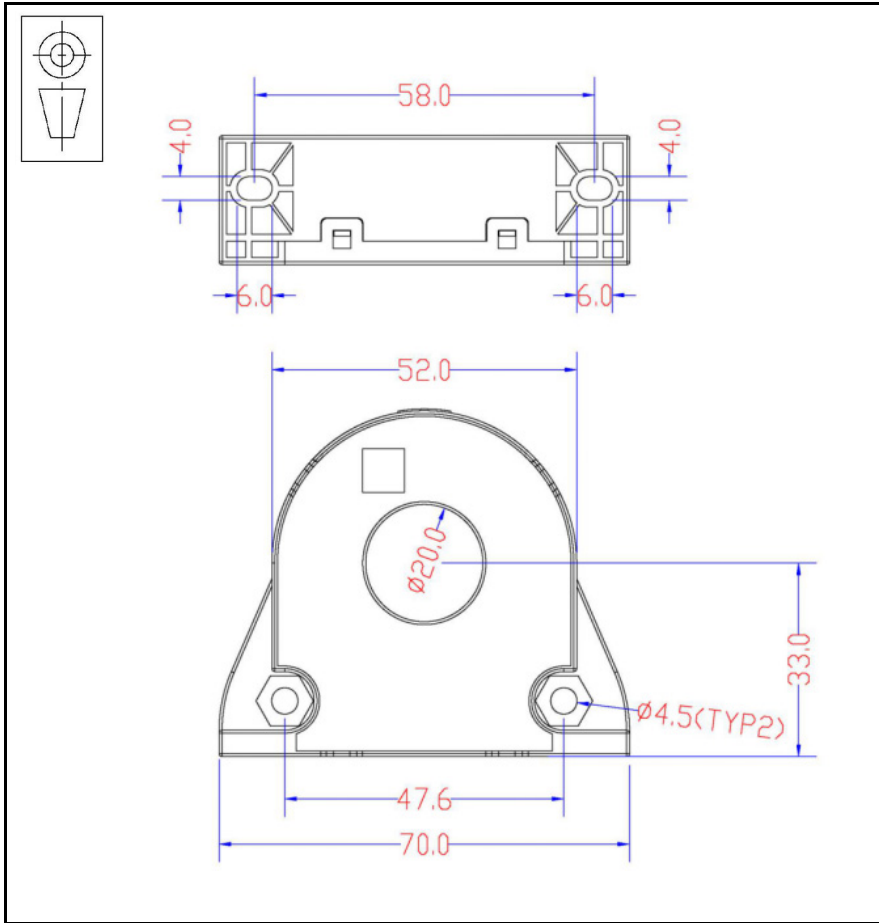
工作环境温度 Operating ambient temperature	-20°C...65°C
贮存环境温度 Storage ambient temperature	-40°C...70°C
质量 Mass (净重 Net weight)	70g

8、接线图 Connecting diagram



- 1、正电源 Positive power supply: DC+12~15V
- 2、负电源 Negative power supply: DC-12~15V
- 3、测量输出端 Measuring output
- 4、空置 NC Vacant NC

9、产品结构图 External Dimensions (单位 Units: mm, 公差 Tolerance: ±0.5)



10、注意事项 Notice

- 工作电源、输出端必须正确连接，不能错接；

Power supply and output terminals should be connected correctly;

- 原边母线的温度不应超过 65℃；

Temperature of the primary conductor should not exceed 65℃;

- 当电流母线填满原边穿孔时，获得最佳的测量精度；

the best measuring precision is obtained when the ary hole is full of current generatrix;

- 使用环境应无导电尘埃和无腐蚀金属和破坏绝缘的气体存在，海拔高度小于 2500 米。

The operating environment allows no electric dust or gases that corrodes metal or destroys insulation. The altitude is less than 2500m.

注：以上图片仅供参考，产品以实物为准，

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