源弥科技

YMC14S 系列电流传感器 Series current sensor

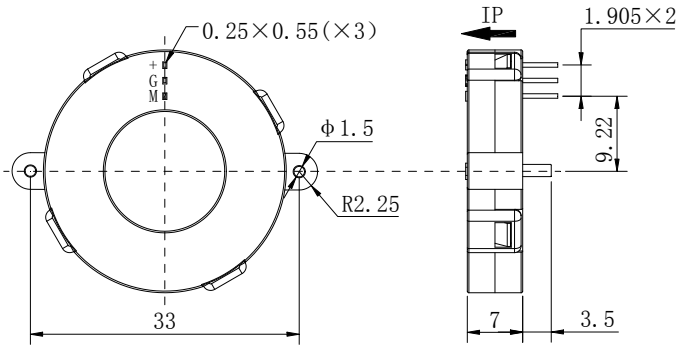
YMC14S 系列开环霍尔电流传感器的初、次级之间是绝缘的，用于控制、测量直流、交流和脉冲电流。

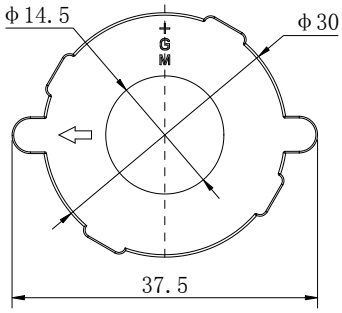
YMC14S series dismountable hall effect current sensor is an open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

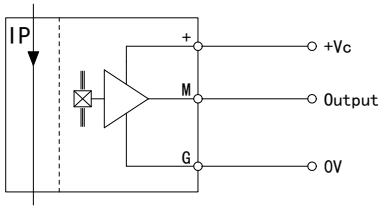
电参数 Electrical data(Ta=25℃±5℃)

型号 Type	YMC14S-200A/S	YMC14S-300A/S	YMC14S-400A/S	YMC14S-500A/S	YMC14S-...1000A/S
额定测量电流 Rated input I_{PN}	±200A	±300A	±400A	±500A	...1000A
测量范围 Measure range I_P	±220A	±330A	±440A	±550A	±1100A
额定输出电压 Rated output voltage V_{out}	2.5V ± 0.625V / 1.25V / 1.5V / 2.0V				
负载电阻 Load resistance R_M	≥10kΩ				
电源电压 Supply voltage U_C	DC +5V（± 5%）				
静态电流消耗 I_C Quiescent current consumption	<15mA				
绝缘耐压 Galvanic isolation V_D	50Hz，1min，2KV				
线性度 Linearity ε_L	<1.0%FS				
总体精度 Overall accuraty X	±1.0%				
零点失调电压 Offset voltage V_0	±10mV				
灵敏度 Sensitivity G	V_{out} / I_{PN} （mV/A）				
响应时间 Response time T_R	<5μs				
频带宽度 BW Frequency bandwidth-3db	DC ~120KHz				
零点失调电压温漂 V_{OT} Offset voltage drift	±0.06mV/℃				
工作环境温度 T_A Ambient operating temperature	-40～+125℃				
储存环境温度 T_S Ambient storage temperature	-40～+125℃				
质量 Mass m	≈15g				
执行标准 Standards	SJ 20790-2000；JB/T 7490-2007				

结构参数 Mechanical dimension(for reference only)







产品特点 Products Features

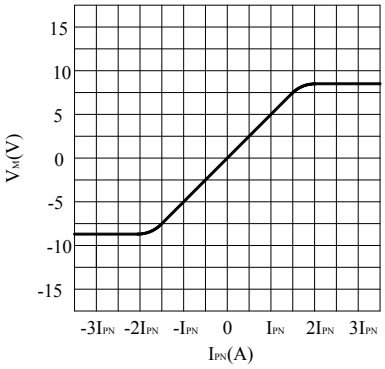
安装方便
Easy mounting
体积小，节省空间
Small size and space saving
无插入损耗
No insertion losses
抗干扰能力强
High immunity to external interference

应用领域 Applications

电动汽车
EV Auto
交流变速驱动器
AC variable speed drives
直流电机驱动静态转换器
Static converters for DC motor drives
通讯电源
Battery supplied applications
不间断电源 (UPS)

使用说明 Directions for use

1、当待测电流从传感器穿过，即可在输出端测得电压大小。(注意：错误的接线可能导致传感器损坏)
When the current will be measured goes through a sensor, the voltage will be measured at the output end.
(Note: The false wiring may result in the damage of the sensor).
2、传感器的输出幅度可根据用户需要进行适当调节。
The output amplitude of the sensor can be adjusted according to users' requirements.
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 design in the different rated input



测量电流计算公式 Measurement of current calculation formula

$IP=（V_{OUT}-U_C/2）×（1/G）×（5/U_C）$

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