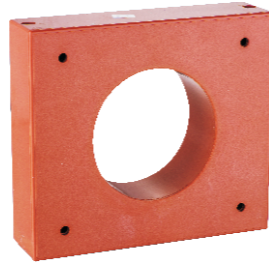


FSM3005 高精度闭环型霍尔电流传感器

FSM3005高精度闭环型霍尔电流传感器的初、次级之间是绝缘的，无位置误差，能真正测量分辨2000:1，用于精密测量直流、交流和脉冲电流。

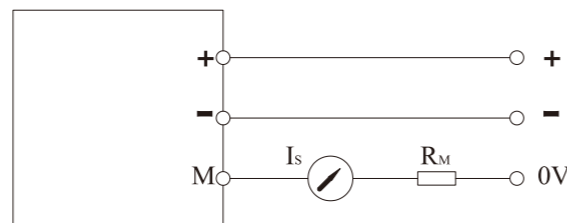
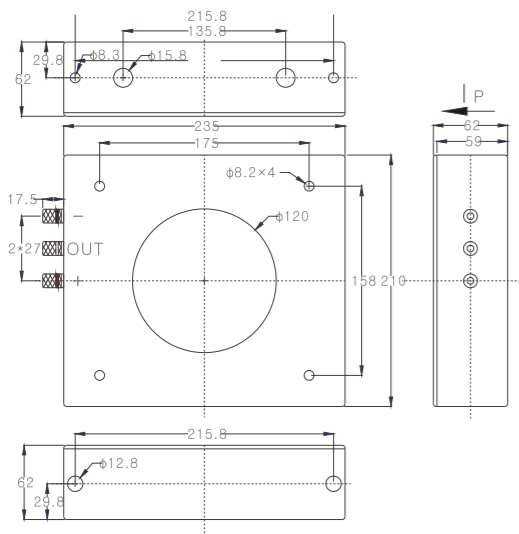
FSM3005 Current sensor is a closed loop device based on the measuring principle of the hall effect and null balance method, with a galvanic isolation between primary and secondary circuit, the size of primary not affect test precision, no matter the location of primary in the hole of current sensor. It can really measure resolution 2000:1 and it uses for precision measurement of DC, AC and pulse current.



电参数Electrical data(Ta=25°C ± 5°C)

型号Type	FSM3005			
额定测量电流Rated input I _{PN}	± 1000A	± 2000A	± 3000A	± 4000A
测量范围Measure range I _P	0~ ± 1500A	0~ ± 3000A	0~ ± 4500A	0~ ± 6000A
额定输出电流Rated output current I _S	200mA	400mA	600mA	666mA
测量电阻范围R _M	With ± 24V @I _{PN} max 80 Ω	max 30 Ω	max 13 Ω	max 5 Ω
Measure resistor range	With ± 24V @I _P max 45 Ω	max 13 Ω	max 2 Ω	
转换比率Conversion ratio K _N	1: 5000			
电源电压Supply voltage V _{CC}	DC ± 15V ~ ± 24V (± 5%)			
电流消耗Current consumption I _C	35mA(@ ± 24V)+I _S			
绝缘耐压Galvanic isolation V _D	50Hz, 1min, 6KV			
线性度Linearity ε _L	< 0.1%FS			
总体精度Overall accuracy X	± 0.3%			
零点失调电流Offset current I ₀	± 0.2mA			
零点失调电流温漂I _{OT}	< ± 0.5mA			
响应时间Response time T _R	@100A/ μ s, 10%~90%	< 1 μ s		
di/dt跟随精度di/dt accurately followed	> 100A/ μ s			
频带宽度Frequency bandwidth-1db	DC~100KHz			
工作环境温度T _A	-40~+85°C			
Ambient operating temperature				
储存环境温度T _S	-40~+125°C			
Ambient storage temperature				
质量Mass m	≈ 2.5kg			
执行标准Standards	SJ20790-2000; JB/T 7490-2007			

结构参数Mechanical dimension(for reference only)



产品特点Products Features

- 精度高 Excellent accuracy
- 良好的线性度 Very good linearity
- 最佳的响应时间 Optimized response time
- 无插入损耗 No insertion losses
- 抗干扰能力强 High immunity to external interference
- 低温漂 Low temperature drift
- 频带宽 Wide frequency bandwidth

应用领域Applications

- 交流变频调速驱动器和伺服电机驱动器 AC variable speed drives and servo motor drives
- 直流电机驱动静态转换器 Static converters for DC motor drives
- 电池供电应用 Battery supplied applications
- 不间断电源 (UPS) Uninterruptible Power Supplies
- 开关电源 (SMPS) Switched Mode Power Supplies
- 电焊机应用 Power supplies for welding applications

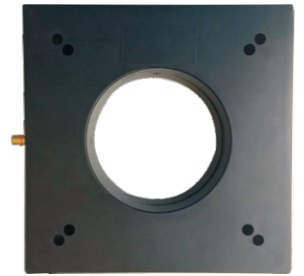
使用说明Directions for use

- 当待测电流从传感器输入脚流过，即可在输出端测得电流大小。(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 current will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)
- 母排完全充满初级穿孔时动态表现 (di/dt 和响应时间) 为最佳。
The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.
- 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 current and the output voltage are available.

FSM4005 高精度闭环型霍尔电流传感器

FSM4005高精度闭环型霍尔电流传感器的初、次级之间是绝缘的，无位置误差，能真正测量分辨3000:1，用于精密测量直流、交流和脉冲电流。

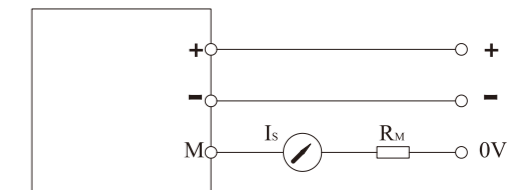
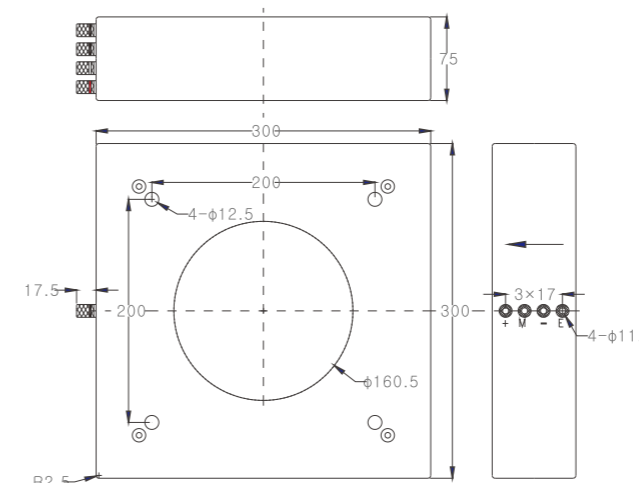
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测量范围Measure range I _P	0~ ± 2000A	0~ ± 4000A	0~ ± 5000A	0~ ± 6000A
额定输出电流Rated output current I _S	± 200mA ± 0.4%	± 400mA ± 0.4%	± 600mA ± 0.4%	± 666mA ± 0.4%
测量电阻范围R _M	With ± 24V @I _{PN} max 80 Ω	max 30 Ω	max 17 Ω	max 15 Ω
Measure resistor range	With ± 24V @I _P max 36 Ω	max 11 Ω	max 5 Ω	max 5 Ω
转换比率Conversion ratio K _N	1: 5000	1: 5000	1: 5000	1: 6000
电源电压Supply voltage V _{CC}	DC ± 24V (± 5%)			
电流消耗Current consumption I _C	35mA(@ ± 24V)+I _S			
绝缘耐压Galvanic isolation V _D	50Hz, 1min, 6KV			
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Custom design in the different rated input current and the output voltage are available.

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