FSM005A 系列霍尔电流传感器

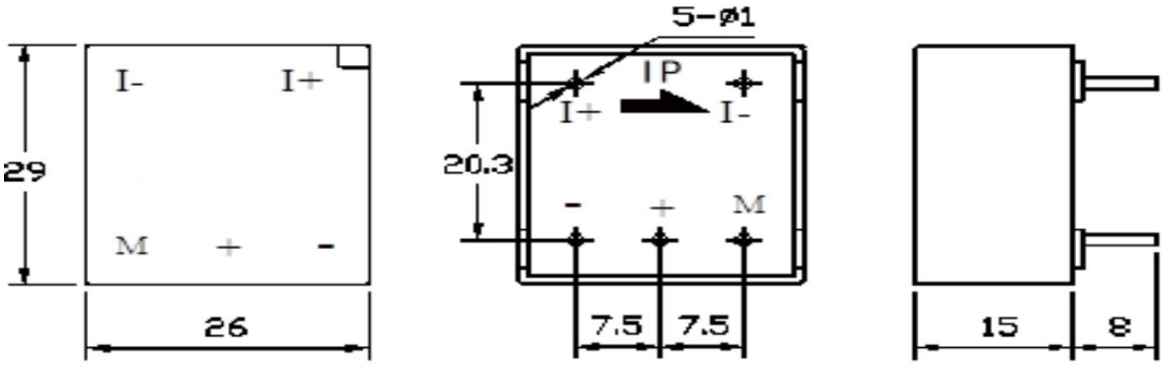
应用霍尔效应闭环原理的电流传感器，能在电隔离条件下测量直流、交流、脉冲以及各种不规则波形的电流。

Closed loop current sensor based on the principle of Hall-effect It can be used for measuring AC,DC, pulsed and mixed current.

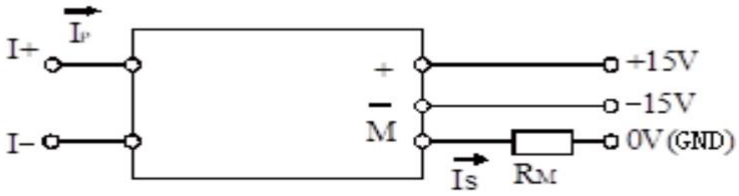
电参数/Electrical characteristics

	型号 Tpye	FSM000.5A	FSM002A	FSM003A	FSM005A	
I_{PN}	原边额定输入电流 Primary nominal input current	0.5	2	3	5	A
I_P	原边电流测量范围 Measuring range of primary current	0～±1	0～±4	0～±6	0～±10	A
I_{SN}	副边额定输出电流 Rated output current of secondary side	25	25	25	25	mA
K_N	匝数比 Conversion ratio	25:1000	12:960	8:960	5:1000	
R_M	测量电阻(V=±15V) Measuring resistance (V=±15V)	I_{PN} max 100-460		I_P max 100-205		Ω
V_C	电源电压 Supply voltage	±12～±15(±5%)				V
I_C	电流消耗 Current consumption	V_C=±15V 10+Is				mA
V_d	绝缘电压 Insulation voltage	在原边与副边电路之间 2.5kV 有效值/50Hz/1 分钟 2.5kV RMS /50Hz/1 min between primary and secondary side circuits				
ε_L	线性度 Linearity	<0.2				%FS
X_G	精度 Accuracy	T_A=25℃ V_C=±15V ± 0.7				%
I_O	零点失调电流 Zero offset current	T_A=25℃ <±0.15				mA
I_{OM}	磁失调电流 Magnetic offset current	I_P→0 <±0.15				mA
I_{OT}	失调电流温漂 Offset current temperature drift	I_P=0 T_A=-25～+85℃ <±0.5				mA
Tr	响应时间 Response time	<1				μs
f	频带宽度(-3dB) Frequency Bandwidth (-3dB)	DC～100				kHz
T_A	工作环境温度 Ambient operating temperature	-25～+85				℃
T_S	贮存环境温度 Ambient storage temperature	-40～+100				℃
R_S	副边线圈内阻 Internal resistance of secondary coil	T_A=85℃ 55				Ω
m	质量(约) Mass (approx.)	21				g
	标准 Standard	GI/FS-0105				

外形尺寸(mm)/Dimensions of drawing(mm)



外部接线图 /External connection diagram



使用说明/Remarks

1. 传感器错误的接线可能导致模块损坏。传感器通电后，当被测电流从传感器箭头方向穿过，即可在输出端测得同相电流值。
Incorrect sensor connections may cause module damage. After the sensor is powered on, when the measured current passes through the arrow direction of the sensor, the in-phase current value can be measured at the output end.

2. 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。
Sensors with different rated input current and output voltage can be customized according to user requirements.