

FSM200B 系列闭环霍尔电流传感器

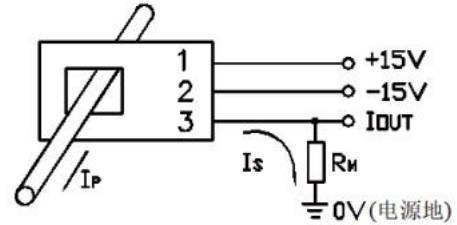
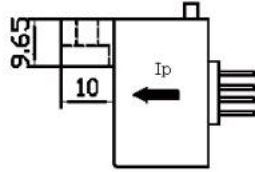
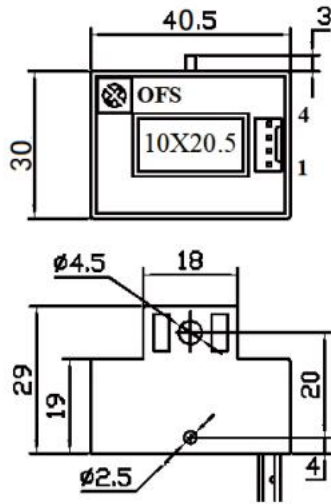


应用霍尔效应闭环原理的电流传感器，能在电隔离条件下测量直流、交流、脉冲以及各种不规则波形的电流。
The current sensor using the Hall effect closed-loop principle can measure DC, AC, pulse and various irregular waveforms of current under the condition of electrical isolation.

电参数/Electrical characteristics								
	型号 Type	FSM025B	FSM050B	FSM100B	FSM200B	FSM300B		
I_{PN}	原边额定输入电流 Primary nominal input current	25	50	100	200	300	A	
I_p	原边电流测量范围 Measuring range of primary current	0~±50	0~+75	0~±150	0~±300	0~±350	A	
I_{SN}	副边额定输出电流 Nominal output voltage	25	50	50	100	100	mA	
K_N	匝数比 Turns ratio	1:1000	1:1000	1:2000	1:2000	1:3000		
R_M	测量电阻 ($V=±15V/I_m$) Measuring resistance	0~380	0~175	0~155	0~51	0~24	Ω	
	($V_e=±18V/I_m$)	8~463	0~215	0~195	0~71	0~43	Ω	
V_c	电源电压 Supply voltage	±15~±18 (±5%)						V
I_c	电流消耗 Current consumption	V=±15V			10+I _s			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						
ϵ_L	线性度 Linearity	<0.2						%FS
X	精度 Precision	TA=25°C		<±0.7			%	
I_o	零点失调电流 Zero offset current	TA=25°C		<±0.30			mA	
I_{OM}	磁失调电流 Magnetic offset current	$I_p \rightarrow 0$		<±0.40			mA	
I_{OT}	失调电流温漂 Offset current temperature drift	$I_p=0$ TA =-25~+85°C		±0.2~±0.65			mA	
Tr	响应时间 Response time	<1						μs
f	频带宽度(-3dB) Band width	DC~100						KHz
T _A	工作环境温度 Operating ambient temperature	-40~+85						°C
T _S	贮存环境温度 Storage ambient temperature	-40~+100						°C
R _S	副边线圈内阻(TA=25°C) Internal resistance of secondary coil	32	32	52	52	80	Ω	
	标准 Standard	GI/FS-0105						

外形尺寸(mm)/Dimensions of drawing(mm)

外部接线图/External wiring diagram



引脚说明: 1:+15V 2:-15V 3:Iout 4:空
OFS:零点调节

使用说明

- 错误的接线可能致传感器损坏。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。
wrong wiring may cause damage to the sensor. 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.
- 当输入电流排完全充满原边穿孔时动态特性最佳(di/dt和响应时间)。
Dynamic performance is optimal (di/dt and response time) when the input current bar is fully filled with the primary perforation.
- 测量小于25A的电流时，可以用多匝线圈，以便得到最好的精度，但考虑到散热问题，传感器的长期工作电流应小于 额定输入电流In。
When measuring currents less than 25A, multi-turn coils can be used In order to obtain the best accuracy, but considering the heat dissipation problem, the long-term working current of the sensor should be less than the rated input current in.