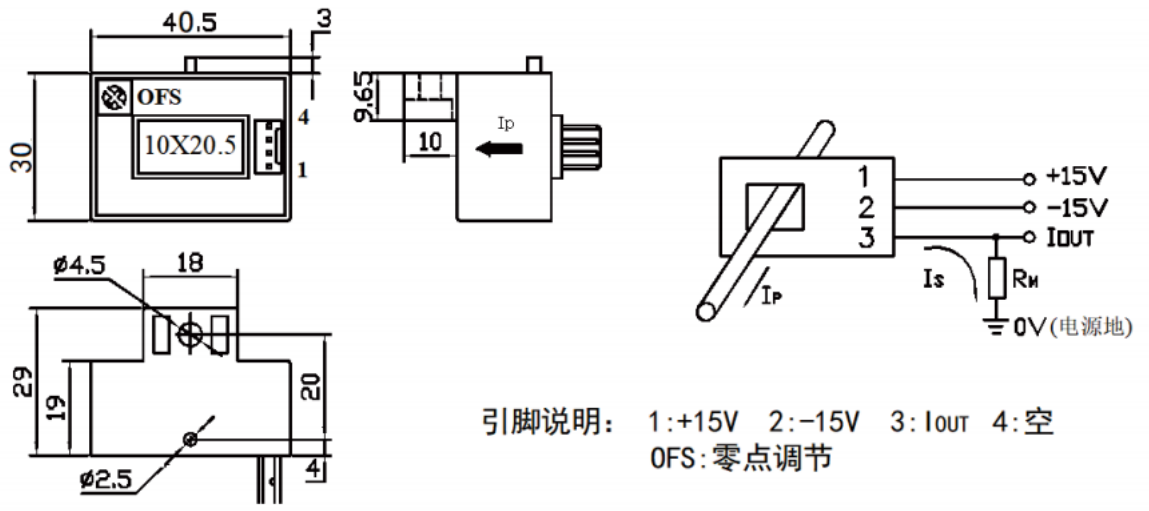
FSM200B 系列闭环霍尔电流传感器

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/Im) Measuring resistance	0～380	0～175	0～155	0～51	0～24	Ω
	(Ve=±18V/Im)	8～463	0～215	0～195	0～71	0～43	Ω
Vc	电源电压 Supply voltag	±15～±18(±5%)					V
Ic	电流消耗 Current consumption	V=±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					
ε L	线性度 Linearity	<0.2					%FS
X	精度 Precision	TA=25℃		<±0.7			%
Io	零点失调电流 Zero offset current	TA=25℃		<±0.30			mA
I_{OM}	磁失调电流 Magnetic offset current	Ip→0		<±0.40			mA
I_{OT}	失调电流温漂 Offset current temperature drift	Ip=0 TA =-25～+85℃		±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					℃
Ts	贮存环境温度 Storage ambient temperature	-40～+100					℃
Rs	副边线圈内阻(TA=25℃) 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



使用说明

1、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.

2、当输入电流排完全充满原边穿孔时动态特性最佳(d i/d t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.

3、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.