

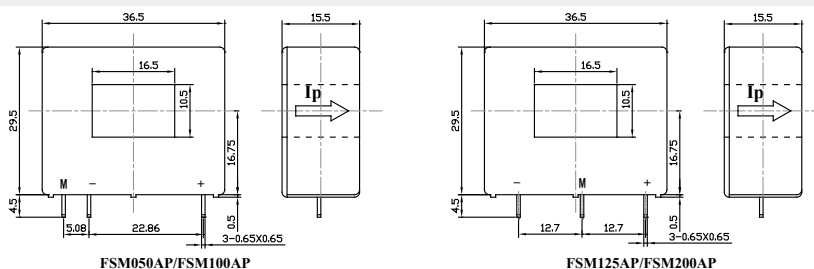


应用霍尔效应开环原理的电流传感器，能在电隔离条件下测量直流、交流、脉冲以及各种不规则波形的电流。
Open loop current sensor based on the principle of Hall-effect. It can be used for measuring AC, DC, pulsed and mixed current.

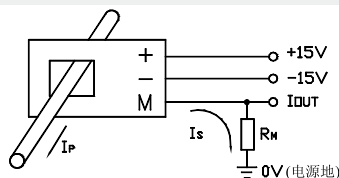
电参数/Electrical characteristics

	型号 Type	FSM050AP	FSM100AP	FSM125AP	FSM200AP	
I_{PN}	原边额定输入电流 Primary nominal input current	50	100	125	200	A
I_P	原边电流测量范围 Measuring range of primary current	0~±150	0~±300	0~±375	0~±600	A
I_{SN}	副边额定输出电流 Secondary nominal output current	50±0.5%	50±0.5%	125±0.5%	100±0.5%	mA
K_N	匝数比 Conversion ratio	1:1000	1:2000	1:1000	1:2000	
R_M	测量电阻 ($V_C=±18V/I_P$) Measuring resistance ($V_C=±18V/I_P$)	0~100	0~68	0~15	0~12	Ω
V_C	电源电压 Supply voltage	±12~±18 (±5%)				V
I_C	电流消耗 Current consumption	$V_C=±18V$	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	<0.1				%FS
X	精度 Accuracy	±0.7				%
I_0	零点失调电流 Zero offset current	$T_A=25^\circ C$	<±0.20			mA
I_{OT}	失调电流温漂 Thermal drift of I_0	$I_P=0$ $T_A=-25\sim+85^\circ C$	≤±0.005			mA/°C
T_r	响应时间 Response time	<1				μs
f	频带宽度(-3dB) Frequency bandwidth(-3dB)	DC~200				kHz
T_A	工作环境温度 Ambient operating temperature	-25~+85				°C
T_S	贮存环境温度 Ambient storage temperature	-40~+100				°C
R_S	副边线圈内阻 ($T_A=25^\circ C$) Secondary coil resistance ($T_A=25^\circ C$)	30	45	30	45	Ω
	标准 Standard	GI/FS-0105				

外形尺寸 (mm) /Dimensions of drawing (mm)



外部接线图/ Connection



使用说明/Remarks

- 错误的接线可能导致传感器损坏。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。
 - 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)。
 - 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 I_{PN} 。
- Incorrect connection may lead to the damage of the sensor. I_S is positive when the I_P flows in the direction of the arrow.
·Dynamic performance (di/dt and response time) are best with a primary bar in the center of the through-hole.