



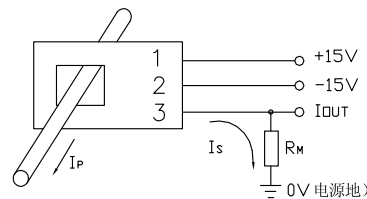
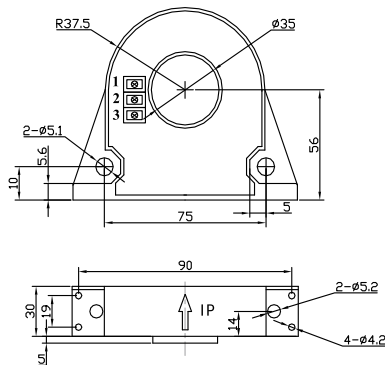
应用霍尔效应开环原理的电流传感器，能在电隔离条件下测量直流、交流、脉冲以及各种不规则波形的电流。
Open loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.

电参数/Electrical characteristics

	型号 Type	FSM300LTB	FSM500LTB	
I_{PN}	原边额定输入电流 Primary nominal input current	300	500	A
I_P	原边电流测量范围 Measuring range of primary current	0 ~ ±500	0 ~ ±800	A
I_{SN}	副边额定输出电流 Secondary nominal output current	100±0.5%	100±0.5%	mA
K_N	匝数比 Conversion ratio	1: 3000	1: 5000	
R_M	测量电阻($V_C=±15V$) Measuring resistance ($V_C=±15V$)	$I_P=±300$ 0~95	$I_P=±500$ 0~62	Ω
	($V_C=±15V$)	$I_P=±500$ 0~40	$I_P=±800$ 0~11	Ω
	($V_C=±18V$)	$I_P=±300$ 0~122	$I_P=±500$ 0~88	Ω
	($V_C=±18V$)	$I_P=±500$ 0~58	$I_P=±800$ 0~30	Ω
V_C	电源电压 Supply voltage	±15 ~ ±18(±5%)		V
I_C	电流消耗 Current consumption	$V_C=±15V$	28+ 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
I_0	零点失调电流 Zero offset current	$T_A=25^\circ C$	<±0.25	mA
I_{OM}	磁失调电流 Residual current	$I_P=0$	<±0.20	mA
I_{OT}	失调电流温漂 Thermal drift of I_0	$I_P=0$ $T_A=-25 \sim +85^\circ C$	<±0.5	mA
T_r	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		$^\circ C$
T_S	贮存环境温度 Ambient storage temperature	-40 ~ +100		$^\circ C$
R_s	副边线圈内阻 $T_A=25^\circ C$ Secondary coil resistance($T_A=25^\circ C$)	31	60	Ω
	标准 Standard	GI/FS-0105		

外形尺寸 (mm) /Dimensions of drawing (mm)

外部接线图



引脚说明: 1: +15V 2: -15V 3: IOUT
Elucidation: 1: +15V 2: -15V 3: IOUT

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。
 - 母排完全充满原边穿孔时动态特性最佳(di/dt 和响应时间)。
 - 为了达到最佳的磁耦合，原边线匝应绕在传感器顶部。
- Incorrect connection may lead to the damage of the sensor. I_{SN} 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.