

FSM025LPT 系列霍尔电流传感器

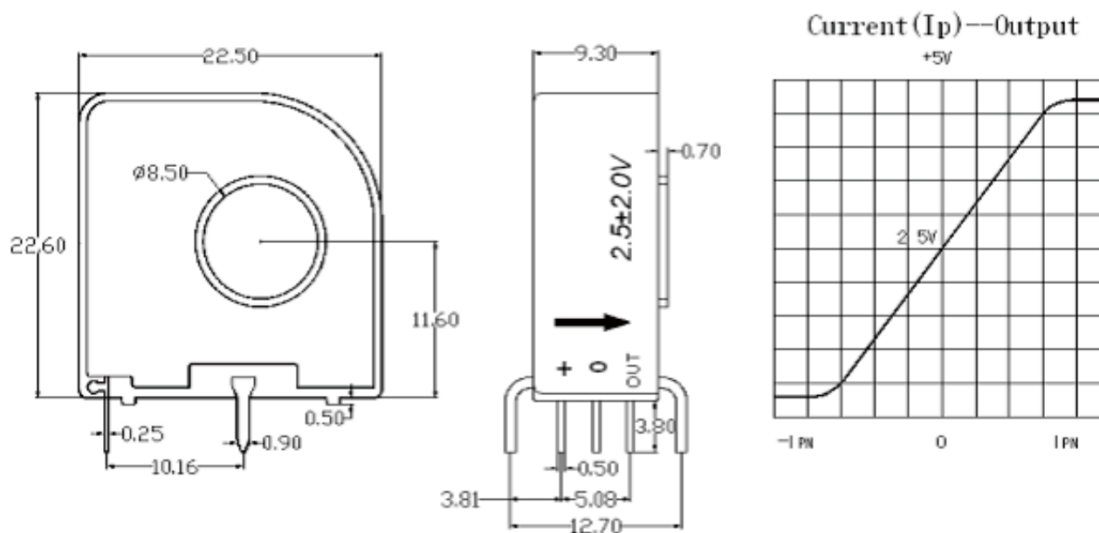
基于闭环磁平衡原理的一款霍尔电流传感器，能够测量直流，交流，脉冲以及 各种不规则电流等。传感器的输出能真实反映通电导体的真实波形。

A Hall current sensor based on the closed-loop magnetic balance principle can measure DC, AC, pulse and various irregular currents. The output of the sensor can truly reflect the real waveform of the energized conductor.



电参数/Electrical characteristics				
	型号 Type	FSM020LPT	FSM025LPT	
I_{PN}	原边额定输入电流 Primary nominal input current	20	25	A
I_P	原边电流测量范围 Measuring range of primary current	0~20	0~25	A
R	取样电阻 Sampling resistance	$50 \pm 0.1\%$	$25 \pm 0.1\%$	Ω
V_{OUT}	副边额定输出电压 Nominal output voltage	2.5 ± 2	2.5 ± 2	V
K_N	匝数比 Conversion ratio	1000	625	
V_C	电源电压 Supply voltage	$+5 (\pm 5\%)$		V
V_d	绝缘电压 Insulation voltage	在原边与副边电路之间3KV有效值/50Hz/1分钟 3KV RMS /50Hz/1 min between primary and secondary side circuits		
ε_L	线性度 Linearity	< 0.1		%FS
V_0	零点偏移电压 Zero offset voltage	$I_P=0 \quad T_A=25^\circ\text{C}$	$2.5 \pm 0.5\%$	V
V_{OT}	失调电压温漂 Thermal drift of V_0	$I_P=0 \quad T_A=-25 \sim +85^\circ\text{C}$	$< \pm 0.5$	mV/ $^\circ\text{C}$
T_R	响应时间 Response time	< 1		us
di/dt	跟随精度 Following accuracy	> 50		A/us
f	频带宽度 (-3dB) Frequency Bandwidth (-3dB)	DC~200		kHz
T_A	工作环境温度 Ambient operating temperature	$-40 \sim +85$		$^\circ\text{C}$
T_S	贮存环境温度 Ambient storage temperature	$-40 \sim +125$		$^\circ\text{C}$
	标准 Standard	GI/FS0105		

外形尺寸(mm)/Dimensions of drawing(mm)



外观管脚尺寸公差 Appearance pin size tolerance

- 总公差: $\pm 0.2\text{mm}$ / Total tolerance: $\pm 0.2\text{mm}$
- 固定管脚: $0.8 \times 0.9\text{mm}$ / Fixed pin: $0.8 \times 0.9\text{mm}$
- 功能管脚: 3pcs $0.25 \times 0.5\text{mm}$ / Functional pin : 3pcs $0.25 \times 0.5\text{mm}$
- 初级孔径: 直径 8.5mm / Primary aperture: 8.5mm diameter