



THE DATASHEET OF FSM-AY



FSM025AY 型霍尔电流传感器

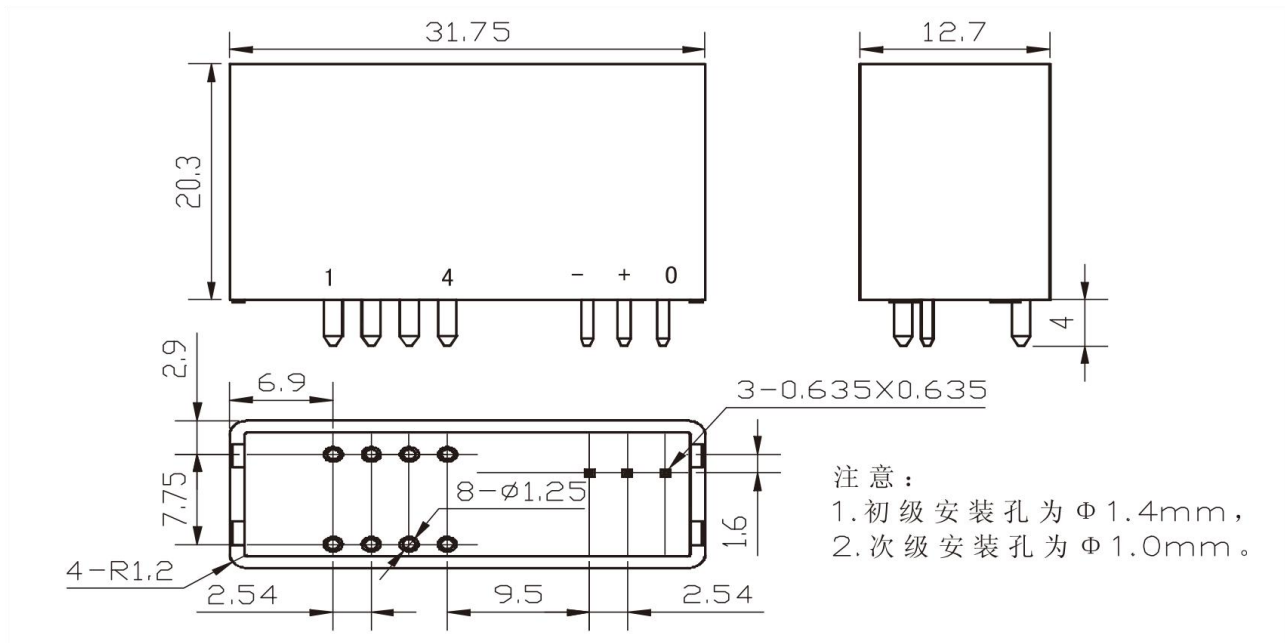
应用霍尔效应闭环原理的电流传感器，能在电隔离条件下测量直流、交流、脉冲以及各种不规则波形的电流。

Closed 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	FSM025AY-100	FSM050AY-100	
I_{PN}	原边额定输入电流 Primary nominal input current	25	50	A
I_P	原边电流测量范围 Measuring range of primary current	0 ~ ± 55	0 ~ ± 100	A
I_{SN}	副边额定输出电流 Rated output current of secondary side	25	50	mA
K_N	匝数比 Conversion ratio	1-2-3-4:1000	1-2-3-4:1000	
R_M	测量电阻 (V=±15V) Measuring resistance (V=±15V)	54-360	68-180	Ω
V_C	电源电压 Supply voltage	±15(±5%)	±15(±5%)	V
I_C	静态功耗 Static power consumption	15	15	mA
V_d	绝缘电压 Insulation voltage	5KV/50Hz/1 分钟	5KV/50Hz/1 分钟	
ϵ_L	线性度 Linearity	<0.1	<0.1	%FS
X_G	精度 Accuracy	$V_C=±15V$ ± 0.5	$V_C=±15V$ ± 0.5	%
I_o	零点失调电流 Zero offset current	$T_A=25^{\circ}C$ <±0.15	$T_A=25^{\circ}C$ <±0.15	mA
I_{OT}	失调电流温漂 Offset current temperature drift	$I_p=0$ $T_A=-45\sim+85^{\circ}C$ ± 0.5	$I_p=0$ $T_A=-45\sim+85^{\circ}C$ ± 0.5	mA
T_r	响应时间 Response time	<1	<1	μ s
f	频带宽度 (-3dB) Frequency Bandwidth (-3dB)	DC~200	DC~200	kHz
T_A	工作环境温度 Ambient operating temperature	-40~+85	-40~+85	°C
T_S	贮存环境温度 Ambient storage temperature	-40~+125	-40~+125	°C
R	次级线圈内阻 Internal resistance of secondary coil	30	30	Ω
	标准 Standard	GI/FS-0105	GI/FS-0105	

外形尺寸(mm)/Dimensions of drawing(mm)



注意/Notion

1. 初级安装孔为 $\phi 1.4\text{mm}$ /The primary mounting hole is $\phi 1.4\text{mm}$
2. 次级安装孔为 $\phi 1.0\text{mm}$ /The secondary mounting hole is $\phi 1.0\text{mm}$

使用说明/Remarks

- 1、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。
Incorrect 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、传感器电流输入端焊接到线路板应牢固可靠，且印制板上的输入端导线宽度不小于 1.5mm，越短越好，印制板最好使用双面环氧板，并双面布线，以免长时间工作导致线路板发热。
Sensor current input welded to the circuit board should be solid and reliable, and the width of the input wire on the printed board is not less than 1.5mm, the shorter the better, the printed board is best to use double-sided epoxy board, and double-sided wiring, so as not to cause the board to heat for a long time.

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