

FSM050LRSH/5V 高精度系列小电流传感器

应用磁通门闭环原理的电流传感器，高精度、高稳定性、宽频带、无位置误差，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。

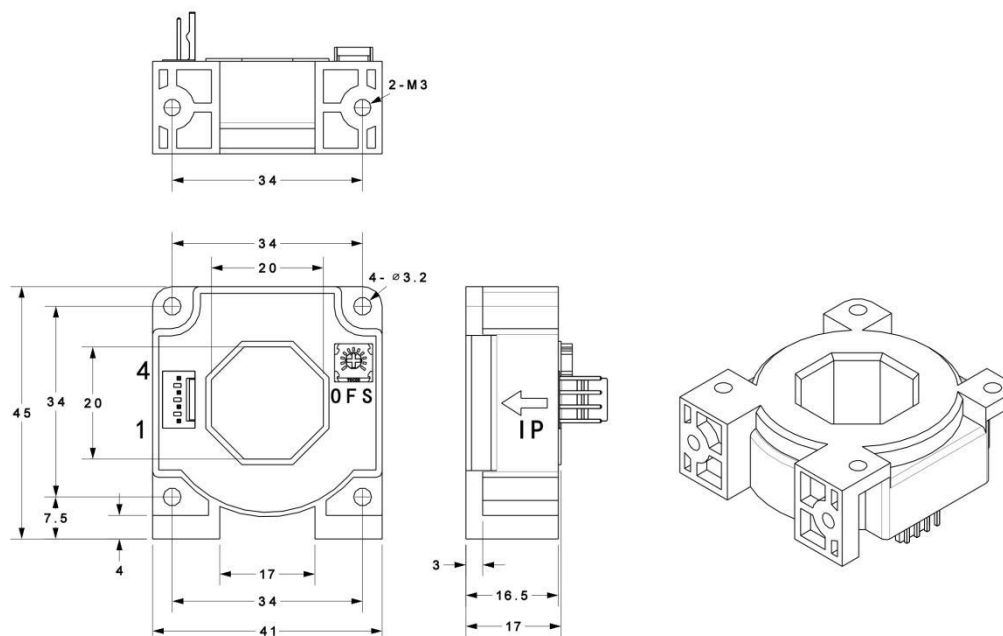
Current sensor using fluxgate closed loop principle, high precision, high stability, wide band, no position error, can measure DC, AC, pulse and various irregular wave forms of current under the condition of electrical isolation.



电参数/Electrical characteristics								
	型号 Type	FSM0.5 LRSH/5V	FSM001 LRSH/5V	FSM005 LRSH/5V	FSM010 LRSH/5V	FSM020 LRSH/5V	FSM050 LRSH/5V	
I_{PN}	原边额定输入电流 Primary nominal input current	0.5	1	5	10	20	50	A
I_P	原边电流测量范围 Measuring range of primary current	0~±1	0~±2	0~±10	0~±20	0~±40	0~±75	A
V_{OUT}	副边额定输出电压 Nominal output voltage	5±0.2%	5±0.2%	5±0.1%	5±0.1%	5±0.1%	5±0.1%	V
K_N	匝数比 Conversion ratio	1:200	1:200	1:500	1:500	1:1000	1:1000	
V_C	电源电压 Supply voltage	±15 (±5%)						V
I_C	电流消耗 Current consumption	$V_C=±15V$ $15+I_P/K_N$						mA
V_d	绝缘电压 Isolation 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	<0.01						%FS
V_0	零点失调电压 Offset voltage	$T_A=25^\circ C$ <±5						mV
V_{OT}	失调电压温漂 Offset current temperature drift	$I_P=0$ $T_A=-25\sim+85^\circ C$ <±0.01 (≤1A±0.03)						mV/°C
T_r	响应时间 Response time	<1						μs
f	频带宽度(-3dB) Frequency bandwidth(-3dB)	DC~100						KHz
di/dt	跟随精度 Follow accuracy	>100						A/μs

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_L	负载电阻 Load resistance	$\geq 10K$	Ω
m	质量 (约) Quality(approx)	46	g
	标准 Standard	GI/FS-0105	

外形尺寸(mm)/Dimensions of drawing(mm)



引脚输出: 1, +15V 2, -15V 3, V_{OUT} 4, 0V(电源地) OFS, 零点调节
Pin output: 1,+15V 2,-15V 3,VOUT 4,0V(power ground) OFS, zero adjustment

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压值。
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 voltage value can be measured at the output end.
- 传感器的输出幅度可根据用户需求进行适当的调节。
The output amplitude of the sensor can be adjusted according to the user's needs.
- 可按用户需求定制不同额定输入电流和输出电压的传感器。
Sensors with different rated input current and output voltage can be customized according to user requirements.

