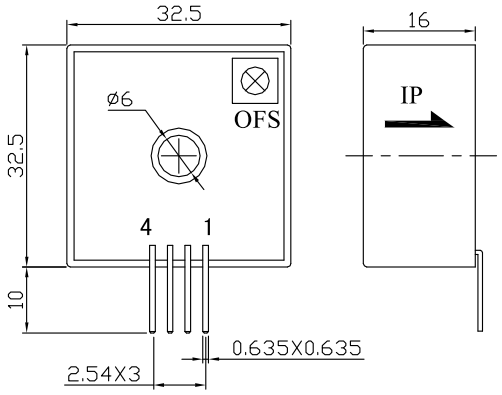
FSM050CG 系列霍尔电流传感器
FSM050CG Hall–effect Current Sensor Series

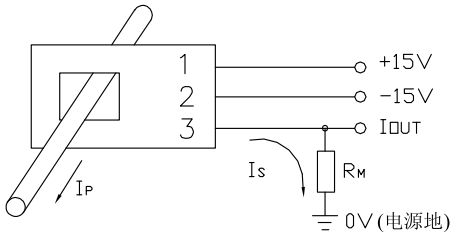
应用霍尔效应开环原理的电流传感器，能在电隔离条件下测量直流、交流、脉冲以及各种不规则波形的电流。
Open loop current sensor based on the principle of Hall–effect. It can be used for measuring AC,DC,pulsed and mixed current.

电参数/Electrical characteristics

	型号 Type	FSM010CG	FSM020CG	FSM030CG	FSM050CG	
I_{PN}	原边额定输入电流 Primary nominal input current	10	20	30	50	A
I_P	原边电流测量范围 Measuring range of primary current	0～±20	0～±30	0～±45	0～±75	A
I_{SN}	副边额定输出电流 Secondary nominal output current	10	20	30	50	mA
K_N	匝数比 Conversion ratio	1：1000	1：1000	1：1000	1：1000	
R_M	测量电阻(V_C=±15V/ I_{PN}) Measuring resistance (V_C=±15V/ I_{PN})	960(max)	490(max)	306(max)	169(max)	Ω
	(V_C=±15V/ I_P)	490(max)	306(max)	192(max)	100(max)	Ω
V_C	电源电压 Supply voltage	±12～±15V(±5%)				V
I_C	电流消耗 Current consumption	V_C=±15V	10+Is			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	T_A =25℃ V_C=±15V	<±0.7			%
I_O	零点失调电流 Zero offset current	T_A =25℃	<±0.15			mA
I_{OM}	磁失调电流 Thermal drift of I0	I_P=0	<±0.15			mA
I_{OT}	失调电流温漂 Thermal drift of IO	I_P=0 T_A =-25～+85℃	<±0.5			mA
T_r	响应时间 Response time	<1				μs
f	频带宽度(-1dB) Frequency bandwidth(-1dB)	DC～100				kHz
T_A	工作环境温度 Ambient operating temperature	-25～+85				℃
T_S	贮存环境温度 Ambient storage temperature	-40～+100				℃
R_S	副边线圈内阻(TA=25℃) Secondary coil resistance(TA=25℃)	36				Ω
	标准 Standard	GI/FS-0105				

外形尺寸（mm）外部接线图/ Dimensions of drawing (mm) Connection





引脚说明: 1:+15V 2:-15V 3:I OUT 4:空 OFS:零点调节

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。
·Incorrect connection may lead to the damage of the sensor. ISN is positive when the IP 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.