麦可一科技
Mycoiltech

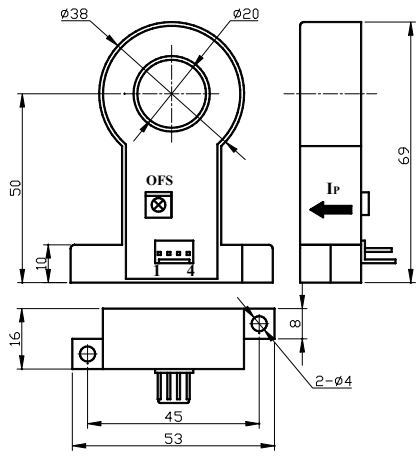
MCSM300E Hall-effect Current Sensor Series

Closed loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.

Electrical characteristics

	Type	MCSM050E	MCSM0100E	MCSM200E	MCSM0300E	
I_{PN}	Primary nominal input current	50	100	200	300	A
I_P	Measuring range of primary current	0~±75	0~±150	0~±300	0~±350	A
I_{SN}	Secondary nominal output current	25	50	100	150	mA
K_N	Conversion ratio	1:1000	1:1000	1:2000	1:2000	
R_M	Measuring resistance (V_C=±15V/ I_{PN})	200(max)	200(max)	80(max)	50(max)	Ω
V_C	Supply voltage	±15(±5%)				V
I_C	Current consumption	V_C=±15V	10+Is			mA
V_D	Insulation voltage	AC/50Hz/1min	3			KV
εL	Linearity	<0.1				%FS
X	Accuracy	T_A=25℃	<±0.7			%
I_O	Zero offset current	T_A=25℃	<±0.25			mA
I_{OM}	Residual current	I_P→0	<±0.2			mA
I_{OT}	Thermal drift of I_0	I_P=0 T_A=-25~+85℃	<±0.5			mA
T_R	Response time	<1				us
di/dt	di/dt accurately followed	>100				KHZ
f	Frequency bandwidth(-3dB)	DC~100				℃
T_A	Ambient operating temperature	-25~+85				℃
T_S	Ambient storage temperature	-40~+100				Ω
R_S	Secondary coil resistance(T_A=25℃)	12.5	12.5	27.5	27.5	g
m	Mass	43				
	Standard	Q/320115QHKJ01-2013				

Dimensions of drawing (mm)



Elucidation: 1:+15V 2:-15V 3:I_{OUT} 4:0V OFS:Zero adjustment

Remarks

- **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.**