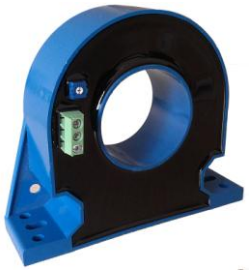
CSM1000LTC Hall-effect Current Sensor Series

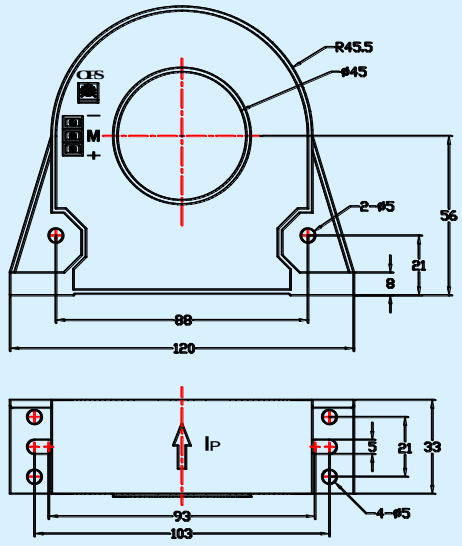


Closed loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.

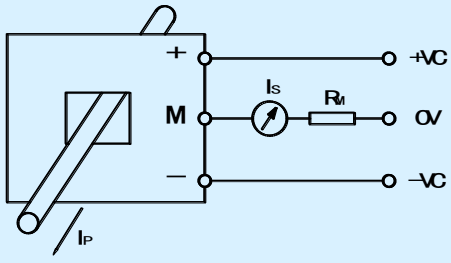
Electrical characteristics

	Type	CSM1000LTC		
I_{PN}	Primary nominal input current(rms)	1000		A
I_P	Measuring range of primary current(DC)	0～±2000		A
I_{SN}	Secondary nominal output current	200		mA
K_N	Conversion ratio	1:5000		
R_M	Measuring resistance (V_C=±15V)	V_C=±15V	I_P=±1000	0~30 Ω
	(V_C=±15V)	V_C=±15V	I_P=±1200	0~20 Ω
	(V_C=±18V)	V_C=±24V	I_P=±1000	0~75 Ω
	(V_C=±18V)	V_C=±24V	I_P=±2000	0~15 Ω
V_C	Supply voltage	±15～±24(±5%)		V
I_C	Current consumption	V_C=±24V	18+Is	mA
V_D	Insulation voltage	AC/50Hz/1min	6	kV
ε_L	Linearity	<0.1		%FS
X	Accuracy	T_A=25℃	<±0.7	%
I_0	Zero offset current	T_A=25℃	<±0.25	mA
I_{OT}	Thermal drift of I_0	I_P=0 T_A=-25～+85℃	<±0.005	mA/℃
T_r	Response time	90%I_{PN}	<1	μs
di/dt	di/dt accurately followed	>100		A/μs
f	Frequency bandwidth(-1dB)	DC~100		kHz
T_A	Ambient operating temperature	-25~+85		℃
T_S	Ambient storage temperature	-40~+100		℃
R_S	Secondary coil resistance(T_A=25℃)	37		Ω
	Standard	Q/320115QHKJ01-2010		

Dimensions of drawing (mm)



Connection



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.