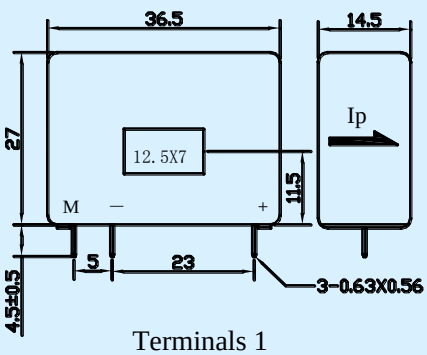
CSM100LA Hall-effect Current Sensor Series

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

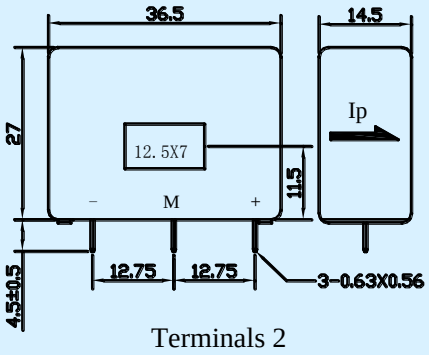
Electrical characteristics

	Type	CSM050LA	CSM100LA	
I_{PN}	Primary nominal input current	50	100	A
I_P	Measuring range of primary current	0~±75	0~±150	A
I_{SN}	Secondary nominal output current	50	50	mA
K_N	Conversion ratio	1:1000	1:2000	
R_M	Measuring resistance (V_C=±15V)	I_P=±50A: 50-160	I_P=±100A: 0-110	Ω
	(V_C=±15V)	I_P=±75A: 50-90	I_P=±150A: 0-33	Ω
V_C	Supply voltage	±12~±15(±5%)		V
I_C	Current consumption	V_C=±15V	10+Is	mA
V_D	Insulation voltage	AC/50Hz/1min	2.5	kV
ε_L	Linearity	<0.2		%FS
X	Accuracy	T_A=25℃ V_C=±15V	<±0.7	%
I_O	Zero offset current	T_A=25℃	<±0.2	mA
I_{OM}	Residual current	I_P→0	<±0.15	mA
I_{OT}	Thermal drift of I_0	I_P=0 T_A=-25~+85℃	<±0.5	mA
T_R	Response time	<1		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℃)	34	112	Ω
	Standard	Q/3201CHGL02-2007		

Dimensions of drawing (mm)

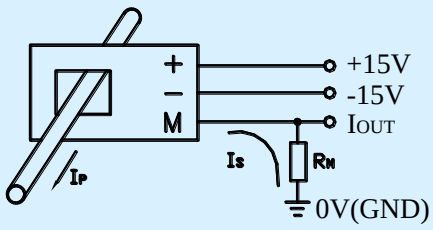


Terminals 1



Terminals 2

Connection



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.