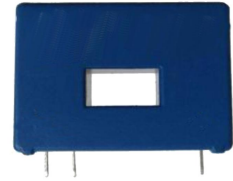


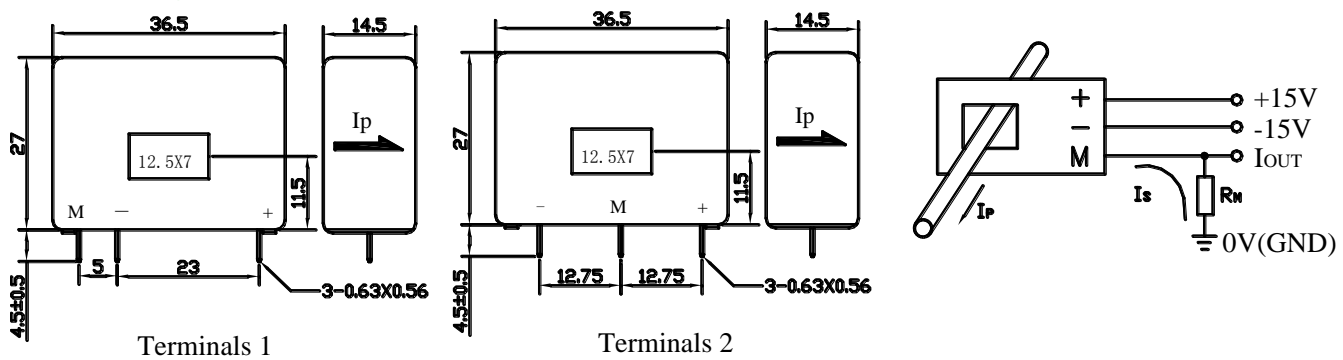
# MCSM100LA Hall-effect Current Sensor Series

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	MCSM050LA		MCSM100LA		
$I_{PN}$	Primary nominal input current	50		100	A	
$I_P$	Measuring range of primary current	0 ~ ± 7.5		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	$Ω$
		$I_P=±75A:$	50-90	$I_P=±150A:$	0-33	$Ω$
$V_C$	Supply voltage	±12~±15(±5%)			V	
$I_C$	Current consumption	$V_C=±15V$	10+ $I_S$		mA	
$V_D$	Insulation voltage	AC/50Hz/1min		2.5	KV	
$ε_L$	Linearity			<0.2	%FS	
X	Accuracy	$T_A=25^{\circ}C$ $V_C=±15V$		<±0.7	%	
$I_0$	Zero offset current	$T_A=25^{\circ}C$		<±0.2	mA	
$I_{OM}$	Residual current	$I_P \rightarrow 0$		<±0.15	mA	
$I_{OT}$	Thermal drift of $I_0$	$I_P = 0$ $T_A = -25 \sim +85^{\circ}C$		<±0.5	mA	
$T_R$	Response time			<1	μs	
f	Frequency bandwidth(-1dB)			DC~100	kHz	
$T_A$	Ambient operating temperature			-25~+85	$^{\circ}C$	
$T_S$	Ambient storage temperature			-40~+100	$^{\circ}C$	
$R_S$	Secondary coil resistance( $T_A=25^{\circ}C$ )	34		112	$Ω$	
		Standard				Q/3201CHGL02-2007

**Dimensions of drawing (mm)** **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.