

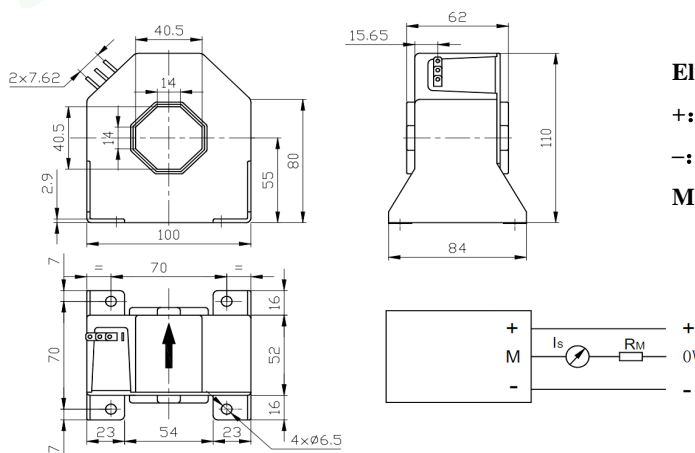
MCSM1000SH Hall-effect Current Sensor Series

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	MCSM1000SH		
I_{PN}	Primary nominal input current	1000	A
I_P	Measuring range of primary current	0~±2000	A
I_{SN}	Secondary nominal output current	200±0.5%	mA
K_N	Conversion ratio	1:5000	
R_M	Measuring resistance ($V_C=±15V$)	$I_P=±1000$	0~30 Ω
	($V_C=±15V$)	$I_P=±1200$	0~20 Ω
	($V_C=±24V$)	$I_P=±1000$	0~68 Ω
	($V_C=±24V$)	$I_P=±2000$	0~15 Ω
V_C	Supply voltage	±15~±24(±5%) V	
I_C	Current consumption	$V_C=±24V$	30+ I_S mA
V_D	Insulation voltage	AC/50Hz/1min	6 kV
ϵ_L	Linearity		<±0.1 %FS
X	Accuracy	$T_A=25^\circ C$	<±0.7 %
I_0	Zero offset current	$T_A=25^\circ C$	<±0.4 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
di/dt	di/dt accurately followed		>100 A/ μs
f	Frequency bandwidth(-3dB)		DC~150 kHz
T_A	Ambient operating temperature		-25~+85 $^\circ C$
T_S	Ambient storage temperature		-40~+100 $^\circ C$
R_S	Secondary coil resistance($T_A=25^\circ C$)		42 Ω
	Standard	Q/320115QHKJ01-2010	

Dimensions of drawing (mm)



Elucidation:

+: +15V...+24V

-: -15V...-24V

M: I_{OUT}

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.