CSM1000SH 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	CSM1000SH		
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 ($V_C=\pm15V$)	$I_P=\pm1000$	0~30	Ω
	($V_C=\pm15V$)	$I_P=\pm1200$	0~20	Ω
	($V_C=\pm24V$)	$I_P=\pm1000$	0~68	Ω
	($V_C=\pm24V$)	$I_P=\pm2000$	0~15	Ω
V_C	Supply voltage	±15~ ±24(±5%)		V
I_C	Current consumption	$V_C=\pm24V$	30+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	$T_A=25℃$	<±0.4	mA
I_{OT}	Thermal drift of I_0	$I_P=0$ $T_A=-25~+85℃$	<±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		℃
T_S	Ambient storage temperature	-40~+100		℃
R_S	Secondary coil resistance($T_A=25℃$)	42		Ω
	Standard	Q/320115QHKJ01-2010		

Dimensions of drawing (mm)
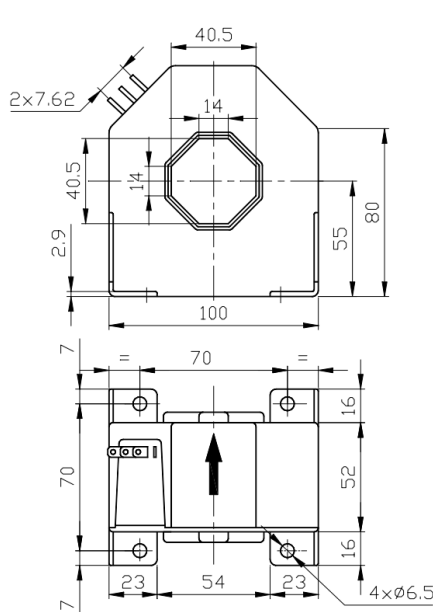
Elucidation:
+：+15V...+24V
−：−15V...−24V
M：I_{OUT}
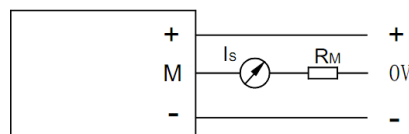
Remarks

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.