

®

CSM500LTB Hall-effect Current Sensor Series

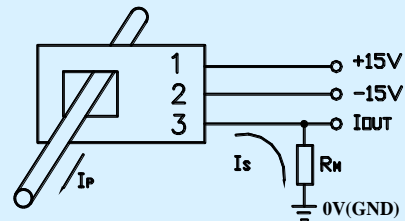
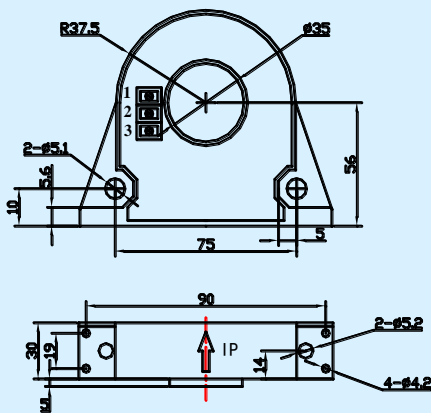


Closed loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.

Electrical characteristics						
	Type	CSM300LTB		CSM500LTB		
I_{PN}	Primary nominal input current	300		500	A	
I_P	Measuring range of primary current	0~±500		0~±800	A	
I_{SN}	Secondary nominal output current	100±0.5%		100±0.5%	mA	
K_N	Conversion ratio	1:3000		1:5000		
R_M	Measuring resistance ($V_C=±15V$)	$I_{PN}=±300$	0~95	$I_{PN}=±500$	0~62	$Ω$
	($V_C=±15V$)	$I_P=±500$	0~40	$I_P=±800$	0~11	$Ω$
	($V_C=±18V$)	$I_{PN}=±300$	0~122	$I_{PN}=±500$	0~88	$Ω$
	($V_C=±18V$)	$I_P=±500$	0~58	$I_P=±800$	0~30	$Ω$
V_C	Supply voltage	±15~±18(±5%)			V	
I_C	Current consumption	$V_C=±15V$	28+ I_s		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_{OM}	Residual current	$I_P→0$		<±0.2	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~100			kHz	
T_A	Ambient operating temperature	-25~+85			℃	
T_S	Ambient storage temperature	-40~+100			℃	
R_S	Secondary coil resistance($T_A=25℃$)	36		64	$Ω$	
	Standard	Q/3201CHGL02-2007				

Dimensions of drawing (mm)

Connection



Elucidation: 1:+15V 2:-15V 3: 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.