

®

CSM300B Hall-effect Current Sensor Series

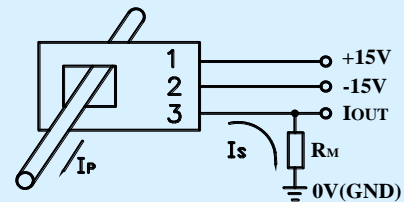
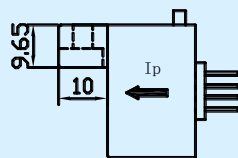
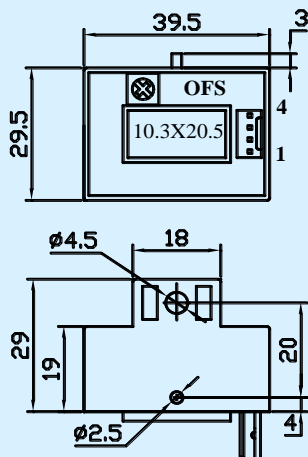


Closed loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.

Electrical characteristics								
	Type	CSM025B	CSM050B	CSM100B	CSM200B	CSM300B		
I_{PN}	Primary nominal input current	25	50	100	200	300	A	
I_P	Measuring range of primary current	0~±50	0~±100	0~±200	0~±300	0~±400	A	
I_{SN}	Secondary nominal output current	25	50	50	100	100	mA	
K_N	Conversion ratio	1:1000	1:1000	1:2000	1:2000	1:3000		
R_M	Measuring resistance ($V_C=±15V/ I_{PN}$)	0~500	0~245	0~203	0~75	0~52	Ω	
	($V_C=±15V/ I_P$)	0~245	0~118	0~75	0~33	0~20	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	$T_A=25^\circ C$		<±0.7			%	
I_0	Zero offset current	$T_A=25^\circ C$		<±0.3			mA	
I_{OM}	Residual current	$I_P \rightarrow 0$		<±0.3			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(-3dB)	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($T_A=25^\circ C$)	10	10	42	42	75	Ω	
	Standard	Q/3201CHGL02-2007						

Dimensions of drawing (mm)

Connection



Elucidation: 1:+15V 2:-15V 3:Iout 4:No connection OFS:Zero adjustment

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.