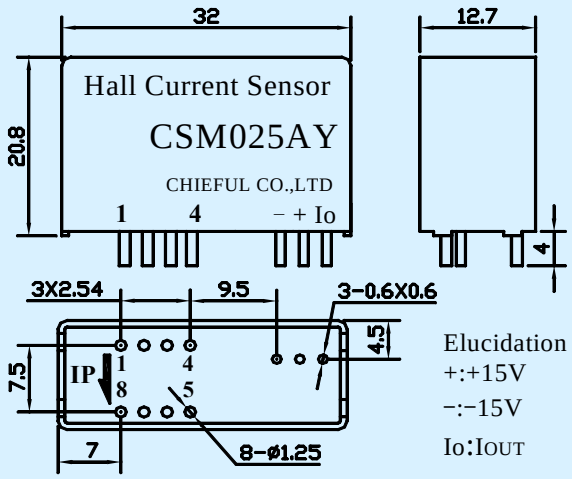
CSM025AY Hall-effect Current Sensor Series

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

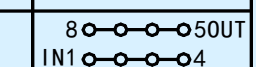
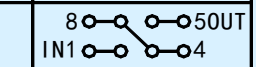
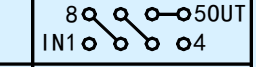
	Type	CSM025AY				
I_{PN}	Primary nominal input current	25				A
I_P	Measuring range of primary current	0~±36				A
I_{SN}	Secondary nominal output current	25				mA
K_N	Conversion ratio	1-2-3-4:1000				
R_M	Measuring resistance (V_C=±15V)	I_P =±25A	54~360	I_P =±36A	68~190	R_M
V_C	Supply voltage	±12~±15(±5%)				V
I_C	Current consumption	V_C=±15V	10+Is			mA
V_D	Insulation voltage	AC/50Hz/1min	2.5			kV
ε_L	Linearity	<0.2				%FS
X	Accuracy	T_A=25℃ V_C =±15V	<±0.7			%
I_O	Zero offset current	T_A=25℃	<±0.15			mA
I_{OM}	Residual current	I_P→0	<±0.15			mA
I_{OT}	Thermal drift of I_0	I_P=0 T_A=-25~+70℃	<±0.5			mA
T_R	Response time	<1				μs
f	Frequency bandwidth(-1dB)	DC~100				kHz
T_A	Ambient operating temperature	-25~+70				℃
T_S	Ambient storage temperature	-40~+100				℃
R_P	Primary coil resistance	T_A=25℃	≤1.25			mΩ
R_S	Secondary coil resistance	T_A=70℃	40			Ω
R_{IS}	Isolation resistance	T_A=25℃	≥1500			MΩ
	Standard	Q/3201CHGL02-2007				

Dimensions of drawing (mm)



Elucidation
+:+15V
−:−15V
Io:IOUT

Connection

Conversion ratio	I_{PN}(A)	I_P(A)	I_{SN}(mA)	Primary connection
1:1000	25	36	25	
2:1000	12	18	24	
3:1000	8	12	24	
4:1000	6	9	24	

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.