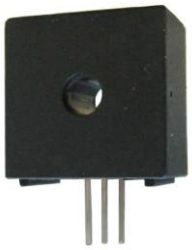
CSM040GT5 Hall-effect Current Sensor Series

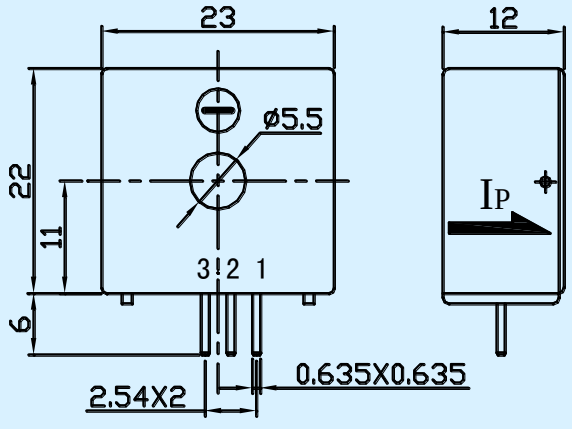


Closed loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.

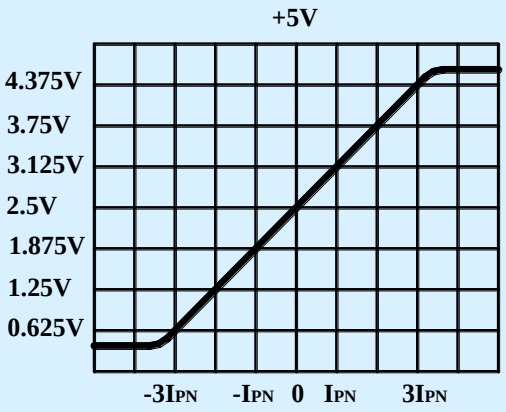
Electrical characteristics

	Type	CSM010GT5	CSM020GT5	CSM025GT5	CSM040GT5	
I_{PN}	Primary nominal input current	10	20	25	40	A
I_P	Measuring range of primary current	0~±20	0~±30	0~±50	0~±80	A
K_N	Conversion ratio	1:1000	1:1000	1:1000	1:1600	
R_{IM}	Internal measuring resistance	100±0.5%	50±0.5%	50±0.5%	50±0.5%	Ω
V_{OUT}	Secondary nominal output voltage	0.625±0.5%				V
V_C	Supply voltage	+5(±5%)				V
I_C	Current consumption	I_P =0	<20			mA
V_D	Insulation voltage	AC/50Hz/1min	2.5			kV
ε_L	Linearity	<0.1				%FS
X	Accuracy	T_A=25℃	<±0.7			%
V_O	Zero offset voltage	I_P=0 T_A=25℃	2.5±0.5%			V
V_{OT}	Thermal drift of V_0	I_P=0 T_A=-25~+85℃	<±0.5			mV/℃
di/dt	di/dt accurately followed	>50				A/μs
T_R	Response time	<500				ns
f	Frequency bandwidth(-1dB)	DC~200				kHz
T_A	Ambient operating temperature	-25~+85				℃
T_S	Ambient storage temperature	-40~+100				℃
	Standard	Q/3201CHGL02-2007				

Dimensions of drawing (mm)



Input current--Output voltage



Elucidation: 1:+5V 2:0V(GND) 3:V_{OUT}

Remarks

Incorrect connection may lead to the damage of the sensor. V_{OUT} 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.