DATA SHEET
Hall Effect Current Sensor

P/N: CHK30/350DHAB5S2LG | **I_{PN}=30/350A**

Feature

- Open- loop
- Supply voltage: DC +5V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Having different current measuring range in the same housing :from ±20A to ±600A;
- Internal circuit adopts ASIC packaging technology

Advantages

- Good accuracy for high and low current range ;
- Good linearity
- Easy installation
- Can be customized
- Low thermal offset drift
- Low thermal sensitivity drift

CE

RoHS

Applications

- EV and utility vehicle
- Battery pack monitoring
- Hybird Vehicles
- Uninterruptible Power Supplies (UPS)
- Inverter applications

Electrical data：（Ta=25℃， Vc=+5.0VDC,RL=10KΩ）

Parameter / Ref	CHK30/350DHAB5S2LG		Conditions
	Channel 1	Channel 2	
Rated input Ipn(A)	±30	±350	@T=25°C
Measuring range Ip(A)	±30	±350	@T=25°C
Output voltage Vo(V)	2.50±2.000*I_P/I_{PN}	2.50±2.000*I_P/I_{PN}	@T=25°C
Output voltage Vo(V)	2.500(V_C/2)	2.500(V_C/2)	@I_P=0,T=25°C, +5V
Offset voltage V_{OE}(mV)	±20	±20	@T=25°C
Magnetic offset curret V_{OM}(mV)	±20	±20	@T=25°C
Temperature variation of VOE (mV/℃)	<1	<1	@IP=0,-40 ~ +125°C
Resolution (mV/A)	66.667	5.714	
Sensitive error X_G(%)	±1.0 Full hole range		@T=25°C
	±2.5 Full hole range		@-10°C<T<65°C
	±4.0 Full hole range		@-40°C<T<125°C

Cheemi Technology Co., Ltd
Tel: 025-85560520 E-mail: info@cheemi-tech.com www. cheemi-tech.com
Add: 3/F, Building 6, Jingang Science and Technology Innovation Park, No.1 Kechuang Road, Qixia District, Nanjing City, Jiangsu Province, China.

Rev: v2.0

Linearity error εr(%FS)	±1.0	
Supply voltage V(V_C)	+5.0 ±5%	
Current consumption I_C(mA)	<30	@without output Load
Load resistance R_L(KΩ)	6~100	
DC Load Current Iout(mA)	-2~2	@R_L=6~100KΩ
Max Output Current （Driving capability） Imax (mA)	-2~2	@Vout=3% or 97%
Output short current （Permanent) Ishort (mA)	35~180	@V_{out} short to V_C
	35~180	@V_{out} short to GND
Capacitive loading C_L(nF)	1~10	
Output clamping voltage min V_{SZ}(V)	0.24~0.26	@V_C=5.0V
Output clamping voltage max V_{SZ}(V)	4.74~4.76	@V_C=5.0V
Output internal resistance Rout(Ω)	1~5.0	
Bandwidth BW(KHZ)	0~30	@-3DB Small signal
Power on delay time (ms)	< 5	@Vo=100%FS,R_L<100K
Response time	< 7.0	μs

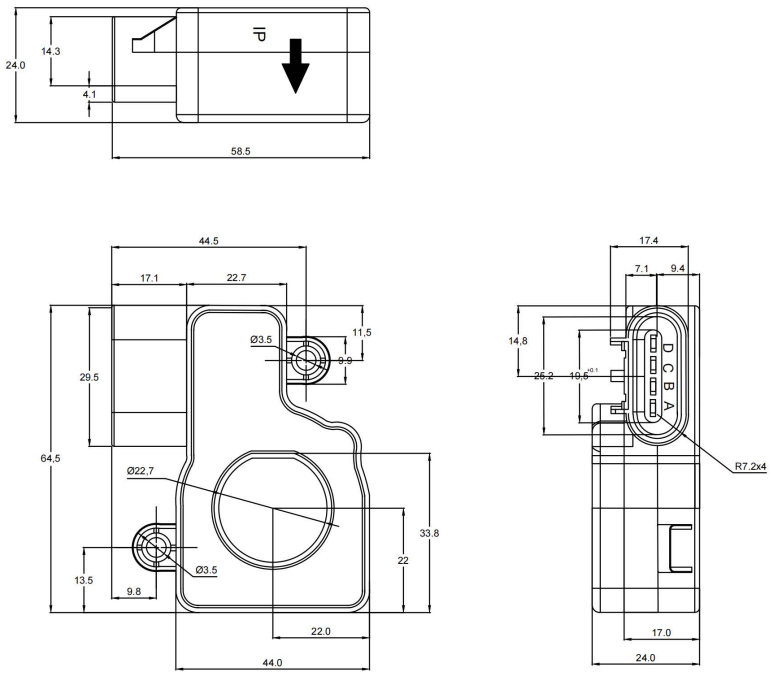
Absolute maximum ratings：

Parameter	Value	Conditions
Supply voltage V_C(V)	4.5~5.5	@ Normal power supply
	+10	@1min，T=25°C
	-3.0	@1min，T=25°C
Positive output Vout(V)	+10	
Output current Iout(mA)	±70	
Reverse Output Vout(V)	-0.3	
Reverse Output Iout(mA)	-50	

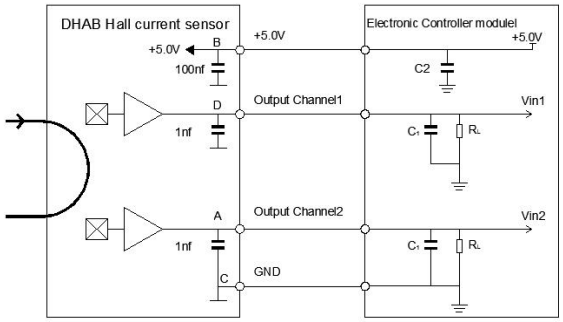
General data：

Parameter	Value
Operating temperature TA(°C)	-40 ~ +125
Storage temperature TS(°C)	-55~ +125
Mass M(g)	115±10
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



Connection



General tolerance

General tolerance:< ±0.5mm
Primary through-hole:21.55±0.3

Part	Description	Value	Unit
C_1	Power supply capacitor EMI	100	nF
C_2	Retirement EMI,ESD	9	nF
R_L	Pullup/down	6~100	KΩ

Remarks:

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.
- The dynamic performance is the best when the primary hole if fully filled with.
- The primary conductor should be <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.