DATA SHEET
Hall Effect Current Sensor

PN: CHK_DHAB5S2L | **IPN=30/300A**

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 ;
- Easy installation
- Low thermal offset drift
- Low thermal sensitivity drift

Applications

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

ISO 14001

RoHS

CE

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

Parmeter / Ref	CHK30DHAB5S2L Channel 1	CHK300DHAB5S2L Channel 2	Conditions
Rated input Ipn(A)	±30	±300	@T=25°C
Measuring range Ip(A)	±30	±300	@T=25°C
Sensitivity S (mV/A)	66.7	6.67	@T=25°C
Output voltage Vo(V)	2.500±2.0*(IP/IPN)	2.500±2.0*(IP/IPN)	@T=25°C
Output voltage Vo(V)	2.500(VC/2)	2.500(VC/2)	@IP=0,T=25°C, +5V
Offset current IOE(mA)	±50	±700	@T=25°C
Magnetic offset curret IOM(mA)	±50	±2300	@T=25°C
General offset current IO(A)	±0.1	±3.0	@T=25°C
	-0.3~+0.3	-4~+4	@-10°C<T<65°C
	-0.5~+0.5	-4.5~+4.5	@-40°C<T<125°C
Sensitive error XG(%)	±0.5		@T=25°C
	-2.5~+2.5		@-10°C<T<65°C
	-4~+4		@-40°C<T<125°C

Linearity error εr(%FS)	-1~+1	
Supply voltage V(VC)	+5.0 ±5%	
Current consumption IC(mA)	<20	
Load resistance RL(KΩ)	>10	
Capacitive loading CL(nF)	1~100	
Resolution (mV)	2.5	@VC=5.0V
Output clamping voltage min VSZ(V)	0.24~0.26	@VC=5.0V
Output clamping voltage max VSZ(V)	4.74~4.76	@VC=5.0V
Output internal resistance Rout(Ω)	1~10	
Bandwidth Bw(KHZ)	1.0	@-3DB
Power up time (ms)	110	
Setting time after over load (ms)	25	

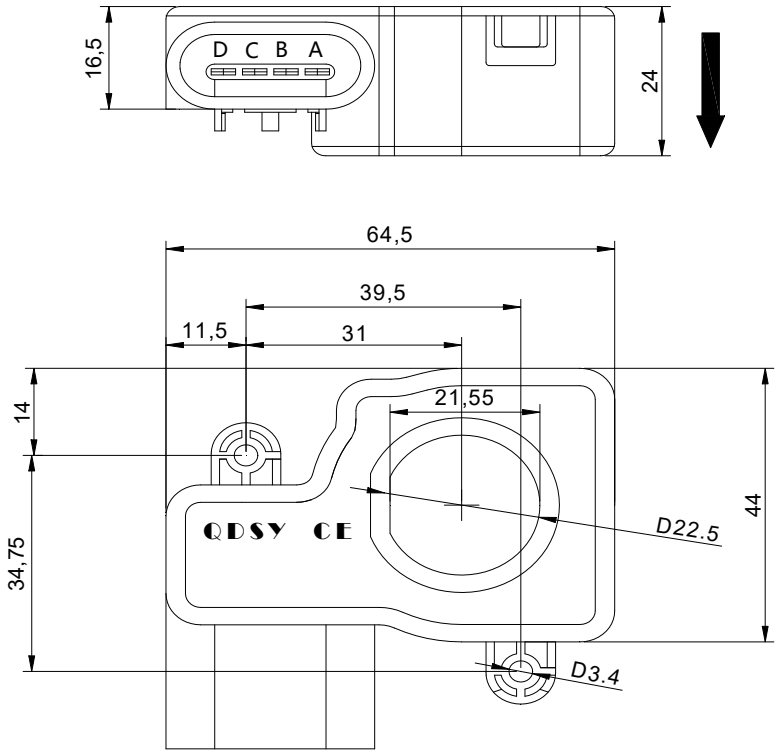
Absolute maximum ratings:

Parameter	Value	Conditions
Supply voltage VC(V)	<8.5	
	14	@1min, T=25°C
	-14	@1min, T=25°C
Output voltage (analog) Vout (V)	8.5	
Output over voltage (analog) Vout (V)	14	@1min, T=25°C

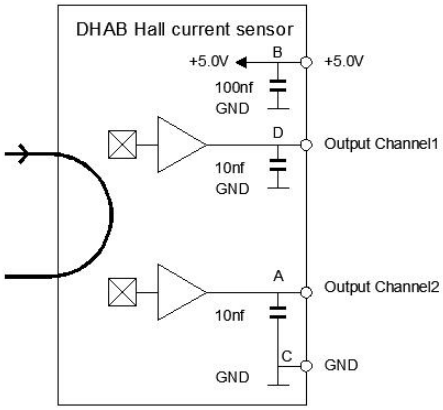
General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	70
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

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.