DATA SHEET
Hall Effect Current Sensor

PN:CHK-HAHE5S2L	IPN=50-1500A

Feature

- Open- loop
- Supply voltage: DC +5.0V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Internal circuit adopts ASIC packaging technology products

Advantages

- Good accuracy for high and low current range
- Good linearity
- Low thermal offset drift
- Low thermal sensitivity drift

Applications

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

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

Parmeter Ref	CHK50 0HAHE 5S2L	CHK10 0HAHE 5S2L	CHK20 0HAHE 5S2L	CHK40 0HAHE 5S2L	CHK60 0HAHE 5S2L	CHK80 0HAHE 5S2L	CHK10 00HAH E5S2L	CHK12 00HAH E5S2L	CHK15 00HAH E5S2L
Rated input Ipn(A)	50	100	200	400	600	800	1000	1200	1500
Measuring range Ip(A)	0～±56	0～±112	0～±225	0～±450	0～±675	0～±900	0～±1000	0～±1200	0～±1500
Sensitivity S(mV/A)	40	20	10	5	3.33	2.5	2	1.67	1.33
Output voltage Vo(V)	$V_C/2 \pm I_P*S$								
Output voltage Vo(V)	@Ip=0,T=25°C ,+5V VC/2								
Supply voltage Vc(V)	+5.0 ±5%								
Current consumption	<20								

Ic(mA)		
Offset voltage V_{OE}(mV)	@Ip=0,T=25°C	< ±5.0
Hysteresis offset voltage V_{OH}(mV)	@IP=0,after 1*IPN	< ±3.0
Temperature variation of VOE V_{OT}(mV/°C)	@IP=0,-40～+85° C	< ±0.5
sensitive error XG(%)	@T=25° C	±0.5
	@-40° C<T<125° C	< ±1.5
Linearity error εr(%FS)	< ±0.5	
Load resistance RL(KΩ)	> 10	
Capacitive loading CL(nF)	1~10	
Output clamping voltage min VSZ(V)	@VC=5.0V	0.24~0.26
Output clamping voltage max VSZ(V)	@VC=5.0V	4.74~4.76
Output internal resistance Rout(Ω)	1~10	
Bandwidth BW(KHZ)	@-3DB	30
Response time Tra(μs)	@90% of IPN ,	< 7.0

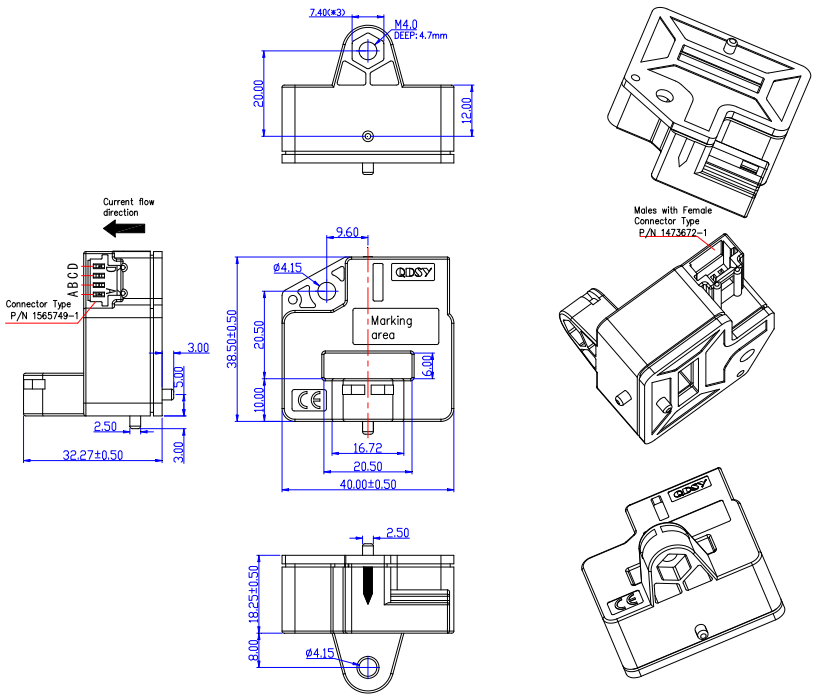
Absolute maximum ratings:

Parameter	Value	Conditions
Supply voltage VC(V)	<6.0	
	6.0	@1min，T=25° C
	-0.1	@1min，T=25° C

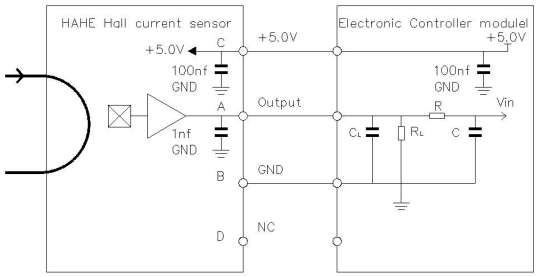
General data:

Parameter	Value
Operating temperature TA(°C)	-40～+125
Storage temperature TS(°C)	-55~ +125
Mass M(g)	65
Plastic material	PBT G30/G15，UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



Connection



Bill of Materials

Plastic case :PBT GF30
Magnetic core: Iron silicon alloy
Electrical terminal:Brass tin platted
Connector type: TYCO 1473672-1

General tolerance

General tolerance:< ±0.5mm

Primary through-hole：20.5*6.0±0.5

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.