DATA SHEET
Hall Effect Current Sensor

PN: CHK_QWH5S2L	I_{PN}=100-900A

Feature

- Open- loop
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V
- Automotive grade hall chip.

Advantages

- High accuracy, very good linearity
- Low temperature drift
- Small volume
- High immunity to external interference

Applications

- AC variable frequency governor
- DC motor driven static converter
- Start the engine
- EPS electric power steering system
- Electric vehicles

CE RoHS

Electrical data：（Ta=25°C，Vc=+5.0VDC）

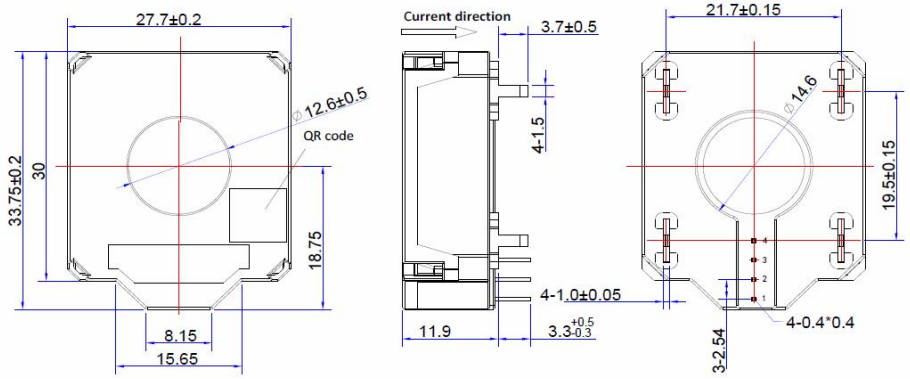
Parameter / Ref	CHK100Q WH5S2L	CHK200Q WH5S2L	CHK300Q WH5S2L	CHK400Q WH5S2L	CHK500Q WH5S2L	CHK600Q WH5S2L	CHK700Q WH5S2L	CHK800Q WH5S2L	CHK900Q WH5S2L
Rated input Ipn(A)	100	200	300	400	500	600	700	800	900
Measuring range Ip(A)	0~±100	0~±200	0~±300	0~±400	0~±500	0~±600	0~±700	0~±800	0~±900
Rated measurement output V_{OUT} (V)	Uc/5*(VO + 2.0/IpN * Ip） V								
Output offset voltage Vo(V)	@T_A=25°C,U_C =+5V				2.5				
Load resistance R_L(kΩ)	⩾3								
Power supply voltage (V)	+5.0 (±5%)								
Current consumption I_C(mA)	⩽12								
Capacitive load C_L (nF)	⩽10								
Accuracy X_G(%)	@T_A=25°C,U_C =+5V, I_{PN}				< ±0.5				
Linearity error εr(%FS)	@T_A=25°C,U_C =+5V, I_{PN}				< ±1%				
Electronic offset voltage V_{OE} (mV)	@T_A=25°C,U_C =+5V,				⩽±5				
Residual magnetic offset voltage V_{OM} (mV)	⩽±5 (Test zero point after adding ± I_{PN}, 25 °C, U_C=+5V)								
Zero offset voltage coefficient TCV_{OE} (mV/°C)	⩽±0.08 (-40°C~ +125°C)								
Output voltage temperature	⩽±0.05 (-40°C~ +125°C)								

coefficient TCV_{out} (%/°C)		
Response time t_{ra}(μs)		<6
Bandwidth (-3db) Bw (KHZ)		DC-50
Output voltage noise V_{nopp} (mV)	(DC…1MHz)	≤10
Effective value of AC isolation withstand voltage Vd(KV)	@50Hz/60s/0.1mA	2.5

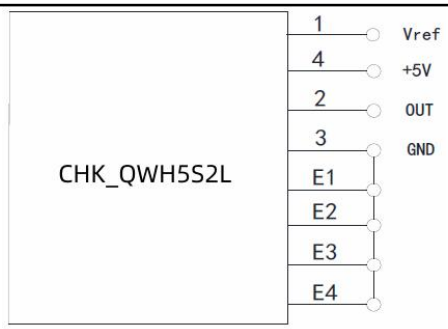
General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +125
Storage temperature TS(°C)	-55~ +125
Mass M(g)	25g
Standards	High and low temperatures meet the testing requirements of EN50178 standard 9.4.2.1.
	Damp heat meets the testing requirements of EN50178 standard 9.4.2.2.
	Vibration meets the testing requirements of EN50178 standard 9.4.3.2.
	Electromagnetic compatibility meets the testing requirements of EN50178 standard 9.4.6.1 and 9.4.6.2.

Dimensions(mm):



Connection



1:Vref (Reference voltage)
2:OUT (Output terminal)
3:GND (Ground)
4:+5V (Positive power supply)

General tolerance

General tolerance:< ±0.5mm
Primary through-hole: D 12.6±.5mm

Remarks:

- When the current to be measured flows through the input pin of the sensor, it can be measured at the output end measure the magnitude of the current.
- Dynamic performance (di/dt and noise) when the busbar is fully filled with primary perforation
- Different rated input current and output voltage can be customized according to user requirements The sensor.

WARNING : Incorrect wiring may cause damage to the sensor.