DATA SHEET
Hall Effect Current Sensor

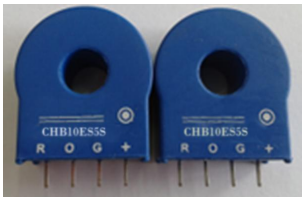
PN: CHB_ES5S65 | **IPN=10~100A**

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: +5±2%
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- High immunity to external interference
- Very good linearity
- Can be customized



Applications

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

CE RoHS

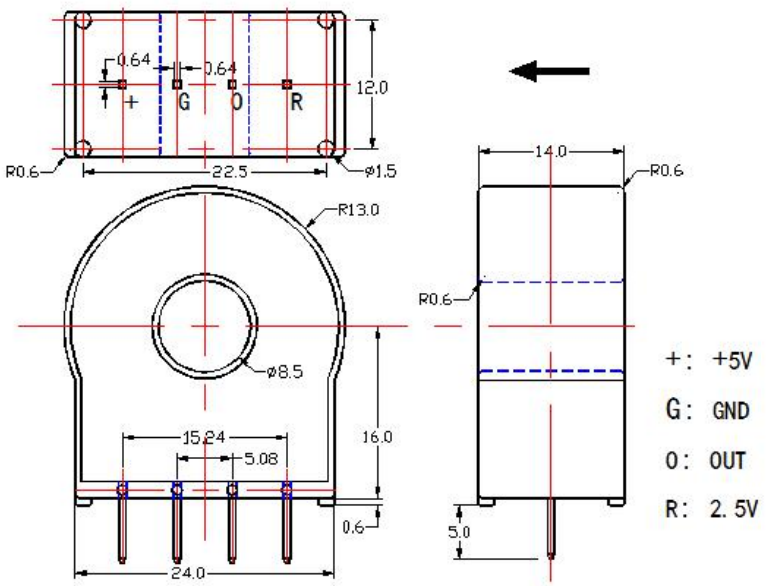
Electrical data Ta=25℃ Vc= ±15VDC					
Parmeter \ Ref	CHB10 ES5S65	CHB25 ES5S65	CHB50 ES5S65	CHB75 ES5S65	CHB100 ES5S65
Rated input Ipn(A)	10	25	50	75	100
Measuring range Ip(A)	32	80	150	225	300
Turns ratio Np/NS (T)	1:960	1:1200	1:1200	1:1200	1:1200
Internal measuring resistance（V）	15±0.1%	7.5±0.1%	3.75±0.1%	2.5±0.1%	1.875±0.1%
Rated output （V）	@Ip=±Ipn ±0.625±0.3%				
Supply voltage（V）	+5±2%				
Power consumption（mA）	≤ 20+IpX(Np/Ns)				
Reference voltage(V)	+2.5±0.4%				
Zero voltage（V）	@Ip=0 +2.5±0.4%FS				
Offset drift （mV/℃）	@ -40℃～105℃ ≤ ±0.05				
output drift （mV/℃）	@ -40℃～105℃ ≤ ±0.05				
Accuracy XG(%)	@IPN,T=25°C < ±0.1				
Linearity（%FS）	@Ip=0-±Ipn ≤ 0.1				

Bandwidth（KHz）	@ -3db	0～200
Response time（μs）	@100A/μS,10%-90%	＜0.5
Galvanic isolation（KV）	@ 50HZ,AC,1min	3

General data

Parameter	Value
Operating temperature TA(°C)	-40 ~ +105
Storage temperature TS(°C)	-40~ +125
Mass M(g)	15
Plastic material	UL94-V0.
Standards	EN60947-1:2004
	IEC60950-1:2001
	EN50178:1998
	SJ 20790-2000

Dimensions(mm):

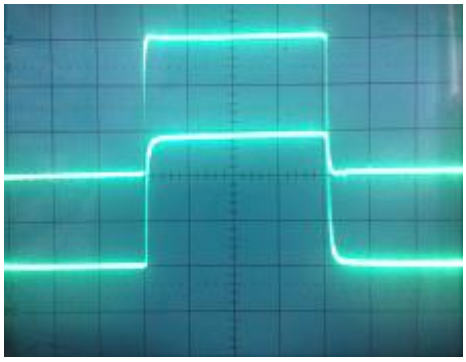


Remarks

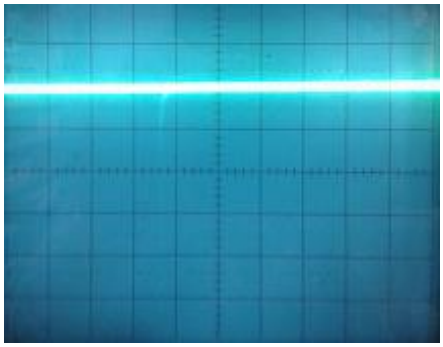
1. All dimensions are in mm.
2. General tolerance ±1mm.

Characteristics chart:

Pulse current signal response characteristic



Effects of impulse noise



Directions for use

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Is will be in a forward direction when the Ip flows according to the direction of arrowhead.
- 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≤120°C.

WARNING : Incorrect wiring may cause damage to the sensor.