

# **DATA SHEET Hall Effect Current Sensor**

PN: CHB LFBH15D

IPN=10-1000A

#### **Feature**

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±15~24V 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

### **Applications**

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

Very good linearity

Can be customized







 $C \in$ **RoHS** 

Electrical data Ta=25°C	$V_c = \pm 15VDC$		
Ref Parmeter	CHB1000LFBH15D		
Rated input Ipn(A)	1000		
Measuring range Ip(A)	2000		
Turns ratio Np/NS (T)	1:5000		
Output current rms IS(mA)	200±0.1%FS		
Secondary coil resistance RS (Ω)	@ 70°C 56		
Measure resister RM (Ω)	with±15V @±1000Amax 0(min) 10(max)   with±15V @±1200Amax 0(min) 1.0(max)   with±24V @±1000Amax 0(min) 55(max)   with±24V @±2000Amax 0(min) 1.0(max)		
Supply voltage VC(V)	( ±15 ~ ±24 ) ±5%		
Offset current IOE(mA)	@Ip=0		
Offset drift(mA)	$\bigcirc -40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ $\leq \pm 0.5$		



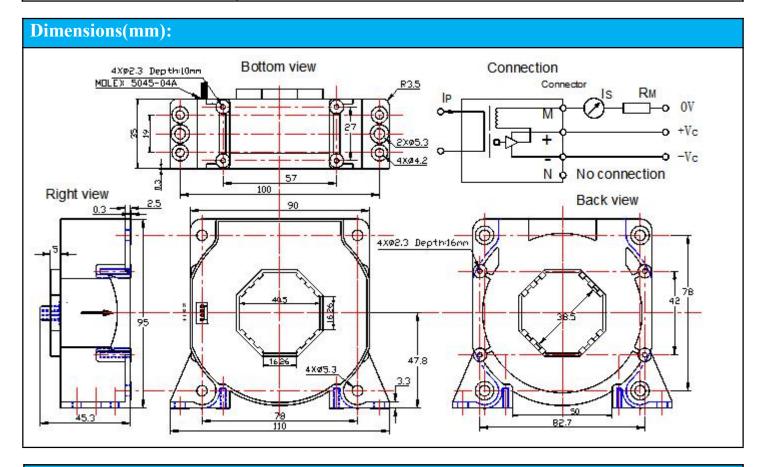
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Accuracy XG(%)	@IPN,T=25°C	<±0.1
Linearity error εr(%FS)		< 0.1
Di/dt accurately followed A/μs		> 100
Response time tra(μs)	@100A/μS,10%-90%	<1
Power consumption IC(mA)		$\leq 20 + IpX(Np/Ns)$
Bandwidth BW(KHZ)	@ -3dB	DC150
Insulation voltage Vd(KV)	@ 50HZ, AC, 1min	6

General data		
Parameter	Value	
Operating temperature TA(°C)	-40 ∼ +85	
Storage temperature TS(°C)	-40~ +125	
Mass M(g)	570	
Plastic material	UL94-V0.	
Standards	EN60947-1:2004	
	IEC60950-1:2001	
	EN50178:1998	
	SJ 20790-2000	

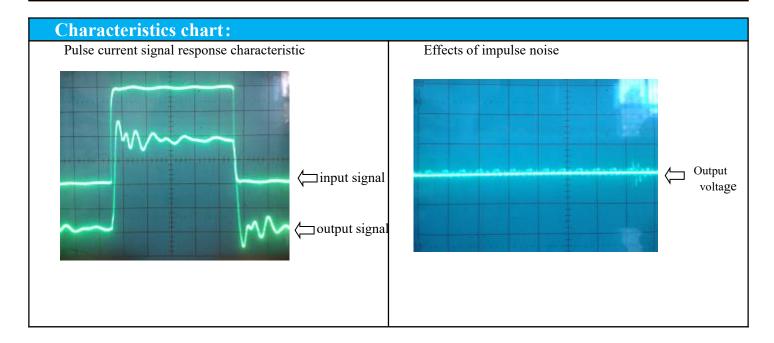


### Remarks



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- 1. All dimensions are in mm.
- 2. General tolerance  $\pm 1$ mm.



#### **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  $\leq 120$ °C.

**WARNING:** Incorrect wiring may cause damage to the sensor.

