DATA SHEET
Hall Effect Current Sensor

PN: CHK_LB15D4	IPN=50-300A

Feature

- Open- loop
- Supply voltage: DC ±12 ~ 15V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- High accuracy
- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference
- Very good linearity
- Can be customized

Applications

- Photovoltaic (PV) current applications
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications

Electrical data：（Ta=25℃， Vc=±15VDC,RL=10KΩ）

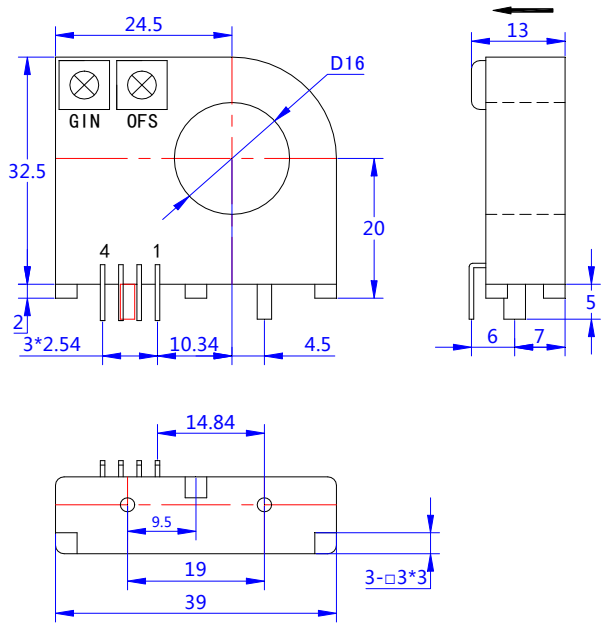
Parmeter \ Ref	CHK50LB15D4	CHK100LB15D4	CHK200LB15D4	CHK300LB15D4
Rated input Ipn(A)	50	100	200	300
Measuring range Ip(A)	0～±150	0～±200	0～±400	0～±450
Output voltage Vo(V)	±4.0*(IP/IPN)			
Load resistance RL(KΩ)	>10			
Supply voltage VC(V)	(±12~ ±15) ±5%			
Accuracy XG(%)	@IPN,T=25°C	< ±1.0		
Offset voltage VOE(mV)	@IP=0,T=25°C	< ±25		
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 ~ +85°C	< ±1.0		
Hysteresis offset voltage VOH (mV)	@IP=0, after 1*IPN	< ±20		
Linearity error εr(%FS)	< 1.0			
Di/dt accurately followed （A/μs）	> 100			

Response time tra(μs)	@90% of IPN	<3.0
Power consumption IC(mA)		15
Bandwidth Bw(KHZ)	@-3dB, IPN	DC-20
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5

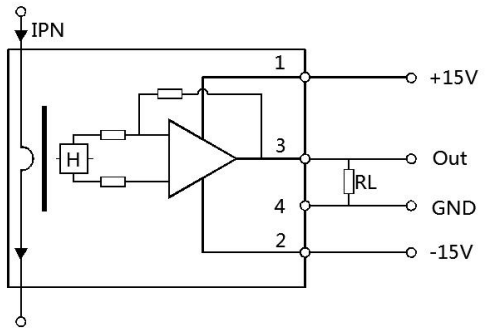
General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	25
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：D16.0±0.15

Connection of secondary :
5pin 0.635*0.635

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.

Reference Data:

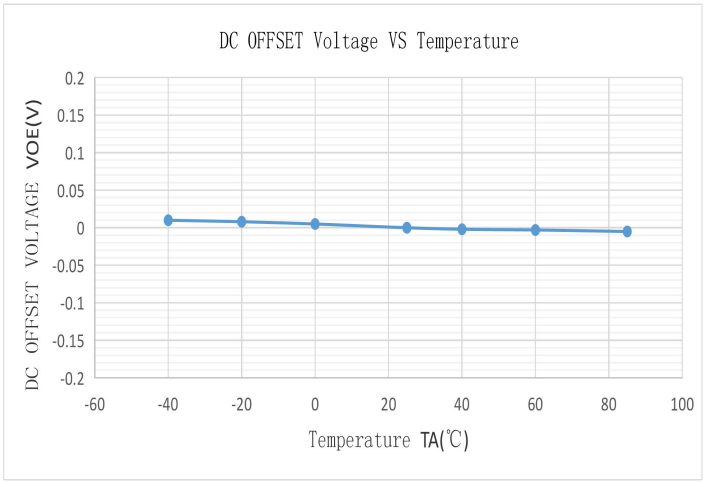


Figure 1 DC OFFSET VS Temperature

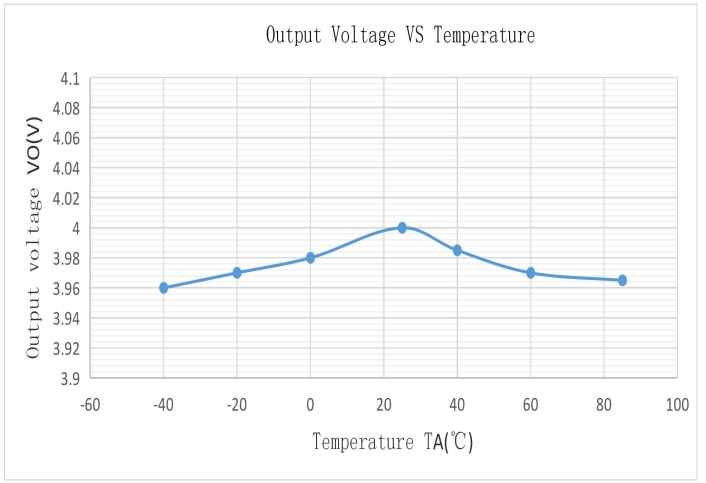


Figure 2 Output voltage VS Temperature

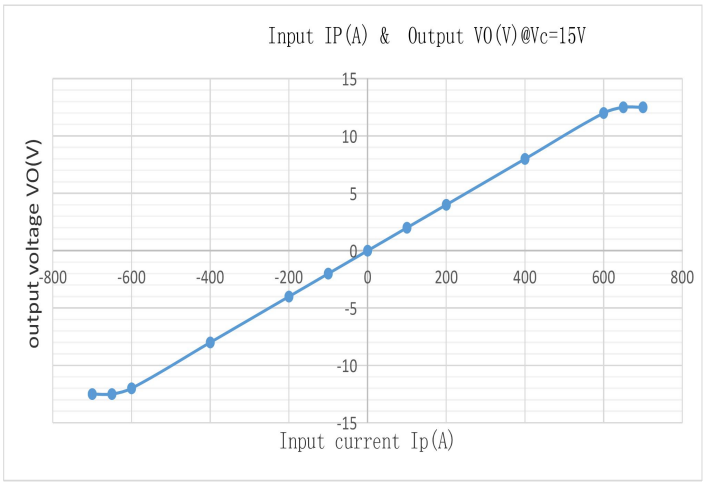


Figure 3 Input current VS Output voltage

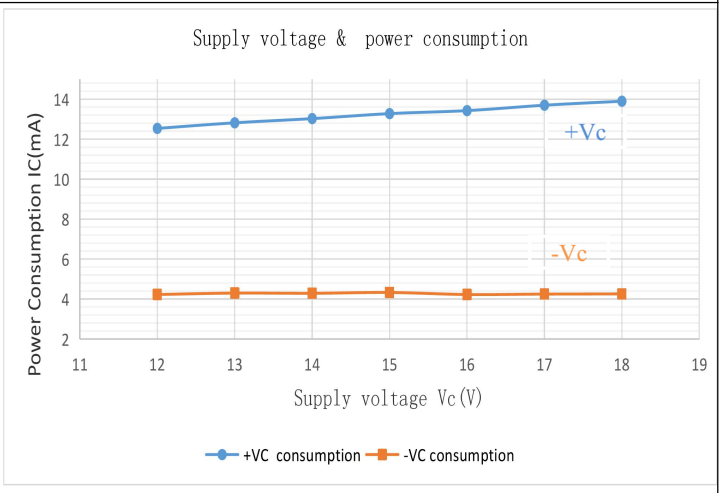


Figure 4 Supply voltage VS power consumption

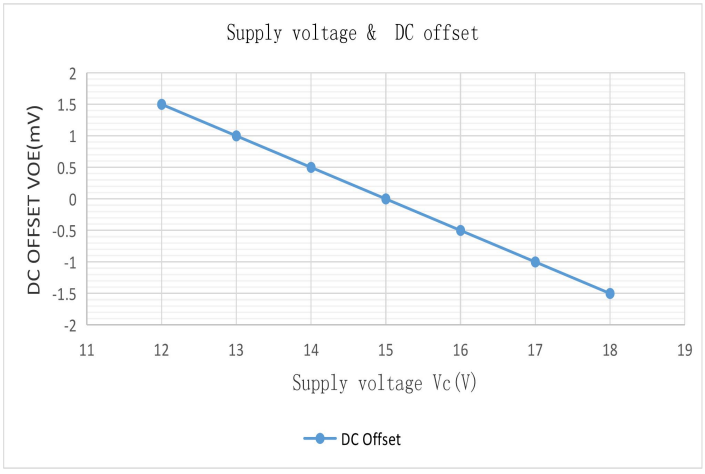


Figure 5 DC offset VS Supply voltage

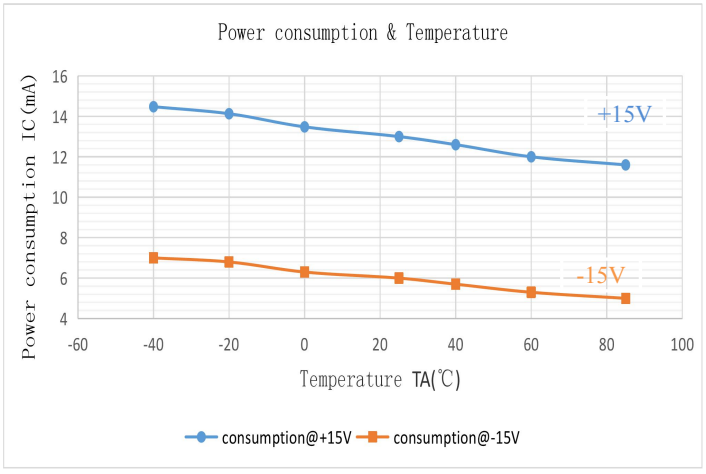


Figure 5 DC offset VS Supply voltage