

# DATA SHEET

## Hall Effect Current Sensor



PN: CHK\_N15D4

IPN=50-600A

### Feature

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

### Advantages

- High accuracy
- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference

### Applications

- Inverter applications
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Frequency drive control home appliances



RoHS



### Electrical data: (Ta=25°C, Vc=±15VDC,RL=1.0KΩ)

Parameter \ Ref	CHK50 N15D4	CHK100 N15D4	CHK200 N15D4	CHK300 N15D4	CHK400 N5D4	CHK500 N15D4	CHK600 N15D4
Rated input Ip(A)	50	100	200	300	400	500	600
Measuring range Ip(A)	0~±150	0~±300	0~±600	0~±900	0~±900	0~±900	0~±900
Output voltage Vo(V)	±4.0*(IP/IPN)						
Load resistance RL(KΩ)	>1.0						
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			< ±25			
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)	77
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

### Dimensions(mm):

CHK-N15D4A	CHK-N15D4B	Connection
		<p>General tolerance</p> <p>General tolerance: &lt;math&gt;\pm 0.5\text{mm}&lt;/math&gt;</p> <p>Primary through-hole: 22*16±0.3</p> <p>Connection of Secondary : 2510-04A (Instead of Molex 5045-04A)</p>

### 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 <math>< 100^{\circ}\text{C}</math>.

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