



# DATA SHEET

## Hall Effect Current Sensor

PN: CHK\_HAL15D4

IPN=50-600A

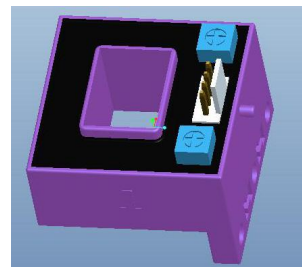
### Feature

- 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

- Very good linearity
- Can be customized



### 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: ( $T_a=25^\circ C$ , $V_c=\pm 15VDC$ , $R_L=10K\Omega$ )

Parameter	Ref	CHK50 HAL15D4	CHK100 HAL15D4	CHK200 HAL15D4	CHK300 HAL15D4	CHK400H AL15D4	CHK600 HAL15D4
Rated input $I_{pn}(A)$		50	100	200	300	400	600
Measuring range $I_p(A)$		0 $\sim$ $\pm 150$	0 $\sim$ $\pm 300$	0 $\sim$ $\pm 600$	0 $\sim$ $\pm 900$	0 $\sim$ $\pm 1000$	0 $\sim$ $\pm 1000$
Output voltage $V_o(V)$		$\pm 4.0*(IP/IPN)$					
Load resistance $R_L(K\Omega)$		$>3$					
Supply voltage $V_C(V)$		$(\pm 12\sim \pm 15) \pm 5\%$					
Accuracy $XG(\%)$		@IPN, $T=25^\circ C$		$< \pm 1.0$			
Offset voltage $VOE(mV)$		@IP=0, $T=25^\circ C$		$< \pm 10$			
Temperature variation of VOE $VOT(mV/^\circ C)$		@IP=0, $-40 \sim +85^\circ C$		$< \pm 1.0$			
Temperature variation of $VOUT$ $VOT(mV/^\circ C)$		@IPN, $-40 \sim +85^\circ C$		$< \pm 0.05\%$			
Hysteresis offset voltage $VOH(mV)$		@IP=0, after 1*IPN		$< \pm 10$			
Linearity error $\epsilon_r(\%FS)$		$< \pm 0.5$					
Response time $t_{ra}(\mu s)$		@90% of IPN		$< 3.0$			
Power consumption $I_C(mA)$		15					



# Cheemi Technology Co., Ltd

Bandwidth Bw(KHZ)	@-3dB, IPN	DC-20
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0

## General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	75
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

## Dimensions(mm):

Technical drawings showing dimensions (mm):

- Top view: 41.30 (width), 41.00 (height), 20.50 (inner width), 15.00 (inner height), 15.30 (bottom offset), 3.05 (bottom thickness), 2.50 (bottom offset).
- Side view: 10.0 (top width), 20.50 (bottom width), 5.80 (bottom offset).
- Bottom view: 20.00 (height), 4.60 (hole offset), 16.10 (hole spacing), 3-D4.5 (hole specification).

**Connection**

**General tolerance**

General tolerance: <math>\pm 0.5\text{mm}</math>  
 Primary through-hole : 15\*20.5±0.3  
 Connection of Secondary : 2510-04A (Instead of Molex 5045-04A)

## 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 is fully filled with.
- The primary conductor should be <math>< 100^{\circ}\text{C}</math>.

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

