

# DATA SHEET

## Hall Effect Current Sensor



**PN: CHK\_F15D4**

**IPN=200-2000A**

### Feature

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

### Advantages

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

Parameter \ Ref	CHK200 F15D4	CHK400 F15D4	CHK800 F15D4	CHK1000 F15D4	CHK1200 F15D4	CHK2000 F15D4
Rated input $I_{pn}(A)$	200	400	800	1000	1200	2000
Measuring range $I_p(A)$	0 $\sim$ $\pm 400$	0 $\sim$ $\pm 800$	0 $\sim$ $\pm 1600$	0 $\sim$ $\pm 2000$	0 $\sim$ $\pm 2400$	0 $\sim$ $\pm 3000$
Output voltage $V_o(V)$	$\pm 4.0*(IP/IPN)$					
Load resistance $R_L(K\Omega)$	$>10$					
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, $T=25^{\circ}C$		$< \pm 25$			
Temperature variation of VOE $VOT(mV/^{\circ}C)$	@IP=0, $-40 \sim +85^{\circ}C$		$< \pm 1.0$			
Hysteresis offset voltage $VOH(mV)$	@IP=0, after $1*IPN$		$< \pm 25$			
Linearity error $\epsilon_r(\%FS)$	$< 1.0$					
Di/dt accurately followed ( $A/\mu s$ )	$> 100$					
Response time $t_{ra}(\mu s)$	@90% of IPN		$< 5.0$			
Power consumption $I_C(mA)$	15					

Bandwidth Bw(KHZ)	@-3dB, IPN	DC-20
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	5.0

### General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	235
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

### Dimensions(mm):

	<p style="text-align: center;"><b>Connection</b></p> <p style="text-align: center;"><b>General tolerance</b></p> <p>General tolerance: &lt;math&gt;\pm 0.5\text{mm}&lt;/math&gt;  Primary through-hole: <math>12.5 \times 41 \pm 0.20</math>  Connection of Secondary :  2510-04A (Instead of Molex 5045-04A)</p>
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### 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.**