



# DATA SHEET

## Hall Effect Current Sensor

**PN: CHK\_FK15D4**

**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

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

Parmeter \ Ref	CHK200 FK15D4	CHK400 FK15D4	CHK800 FK15D4	CHK1000 FK15D4	CHK1200 FK15D4	CHK2000 FK15D4
Rated input $I_{pn}(A)$	200	400	800	1000	1200	2000
Measuring range $I_p(A)$	0~ $\pm 600$	0~ $\pm 1200$	0~ $\pm 2400$	0~ $\pm 3000$	0~ $\pm 3600$	0~ $\pm 4000$
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 $VO_T(mV/^\circ C)$	@IP=0, $-40 \sim +85^\circ C$		$< \pm 1.0$			
Hysteresis offset voltage $VO_H(mV)$	@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 $I_C(mA)$	20					
Bandwidth $B_w(KHZ)$	@-3dB, IPN		DC-20			
Insulation voltage $V_d(KV)$	@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 : 13*41±0.20            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 is fully filled with.
- The primary conductor should be <math>< 100^{\circ}\text{C}</math>.

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

