

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

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 \sim ± 600	0 \sim ± 1200	0 \sim ± 2400	0 \sim ± 3000	0 \sim ± 3600	0 \sim ± 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 $VOT(mV/^{\circ}C)$	@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 $t_r(\mu s)$	@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;">Connection</p> <p style="text-align: center;">General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> Primary through-hole: $13*41 \pm 0.20$ 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.