DATA SHEET
Hall Effect Current Sensor

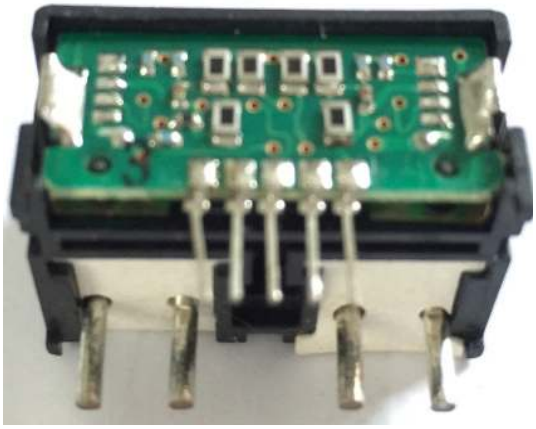
PN: CHK_DSY15D4 | **IPN=03-30A**

Feature

- Open- loop dual current transducer
- Supply voltage: DC ±12~15V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- Excellent accuracy
- Easy installation
- No insertion losses
- Small PCB mounting
- 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

Electrical data：（Ta=25℃，Vc=±15.0VDC,RL=10KΩ）

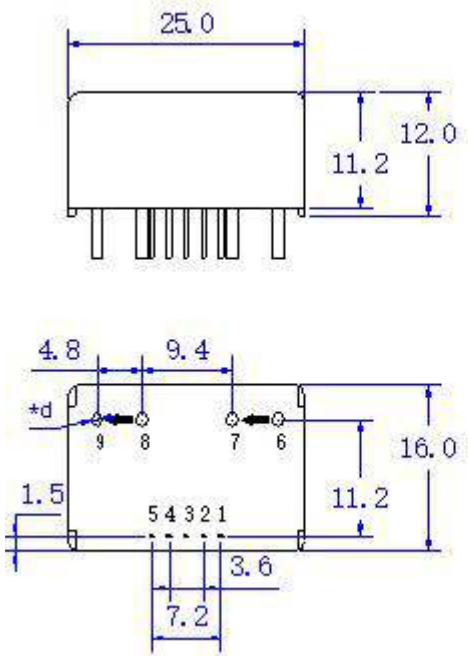
Parmeter / Ref	CHK03 DSY15D4	CHK05 DSY15D4	CHK10 DSY15D4	CHK15 DSY15D4	CHK20 DSY15D4	CHY25 DSY15D4	CHK30 DSY15D4
Rated input Ipn(A)	03	05	10	15	20	25	30
Measuring range Ip(A)	0～±09	0～±15	0～±30	0～±45	0～±60	0～±75	0～±90
Size of Input pin *d(MM)	Ø0.6	Ø0.8	Ø1.4	Ø1.4	Ø1.6	Ø1.6	Ø1.6
Output voltage Vo(V)	±4.0*(IP/IPN)						
Load resistance RL(KΩ)	>10						
Supply voltage VC(V)	(±12~±15) ±5%						
Accuracy XG(%)	@IPN,T=25°C	< ±1.0					
Offset voltage VOE(mV)	@IP=0,T=25°C	< ±50					
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 ~ +85°C	< ±2.0					
Output Temperature characteristic TCVO(%/°C)	@IPN,-40 ~ +85°C	< 0.1 (without offset)					
Hysteresis offset voltage VOH(mV)	@IP=0,after 1*IPN	< ±25					
Linearity error εr(%FS)	< 1.0						

Di/dt accurately followed （A/μs）	> 50
Response time tra(μs)	@90% of IPN < 5.0
Power consumption IC(mA)	30
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC 2.0

General data：

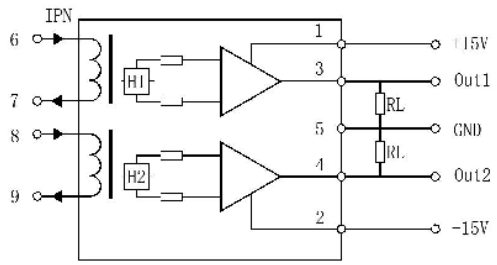
Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	15
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



IPN	*d
03A	C.6mm
05A	C.8mm
10~15A	1.4mm
20~30A	1.6mm

Connection



General tolerance

General tolerance:< ±0.5mm
Connection of secondary :
5pin 0.3*0.5

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 <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.