DATA SHEET
Hall Effect Current Sensor

PN: CHK_EKA5S2 | **IPN=50-600A**

Feature

- Open- loop
- Supply voltage: DC +5.0V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- 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

Electrical data：（Ta=25℃，Vc=+5.0VDC,RL=2KΩ）

Parmeter \ Ref	CHK50 EKA5S2	CHK100 EKA5S2	CHK200 EKA5S2	CHK300 EKA5S2	CHK400 EKA5S2	CHK600 EKA5S2
Rated input Ipn(A)	50	100	200	300	400	600
Measuring range Ip(A)	0～±50	0～±100	0~±200	0～±300	0～±400	0～±600
Output voltage Vo(V)	2.500±2.0*(IP/IPN)					
Output voltage Vo(V)	@IP=0,T=25°C 2.500					
Load resistance RL(KΩ)	>2.0					
Supply voltage VC(V)	+5.0 ±5%					
Accuracy XG(%)	@IPN,T=25°C < ±1.0					
Offset voltage VOE(mV)	@IP=0,T=25°C < ±25					
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 ~ +85°C < ±1.0					
Hysteresis offset voltage VOH(mV)	@IP=0,after 1*IPN < ±20					
Linearity error εr(%FS)	< 1.0					
Di/dt accurately followed（A/μs）	> 100					
Response time tra(μs)	@90% of IPN < 3.0					
Power consumption IC(mA)	15					
Bandwidth Bw(KHZ)	@-3dB, IPN DC-20					

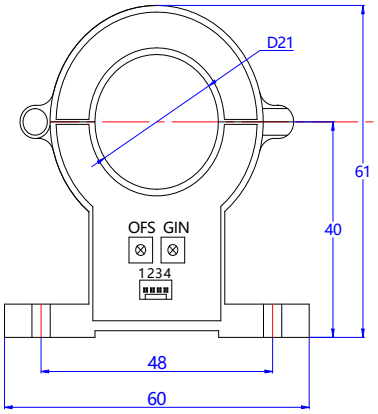
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC 2.5

General data:

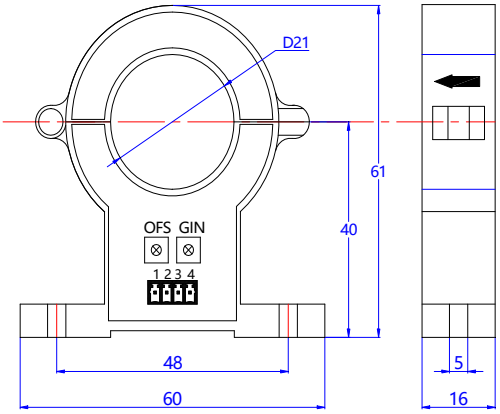
Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	70
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

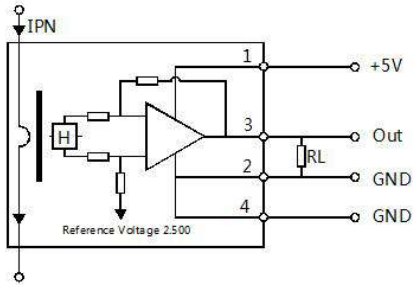
CHK_EKA5S2M



CHK_EKA5S2S



Connection



General tolerance

General tolerance:< ±0.5mm

Primary through-hole：D21.0±0.3

Connection of Secondary :

CHK_EKA5S2M:
2510-04A (Instead of Molex 5045-04A)

CHK_EKA5S2S: 15EDGK3.81-04P

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.