DATA SHEET
Hall Effect Current Sensor

PN: CHK_EKBDA24S4 | **IPN=200-2000A**

Feature

- Open- loop current transducer using the hall effect
- Supply voltage: DC +12.0~+24.0V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Output signal can be directly acquisition-ed by the PLC or DSP terminal control system.

Advantages

- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference
- Can be customized

Applications

- The application of variable frequency electrical appliances
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications

Electrical data：（Ta=25℃，Vc=+24.0VDC）

Parmeter \ Ref	CHK200EKBDA24S4	CHK400EKBDA24S4	CHK800EKBDA24S4	CHK1000EKBDA24S4	CHK1500EKBDA24S4	CHK2000EKBDA24S4
Rated input Ipn(A)	200	400	800	1000	1500	2000
Measuring range Ip(A)	0 ~ +400	0 ~ +800	0 ~ +1600	0 ~ +2000	0 ~ +3000	0 ~ +4000
Output current Io(mA)	@CHK-EKBDA24S4 4.0+16.0*(IP/IPN),DC					
Output current Io(mA)	@IP=0,CHK-EKBDA24S4 4.0±0.15,DC					
Output current Io(mA)	@CHK-EKBDA24S0 +20.0*(IP/IPN),DC					
Offset current IOE(mA)	@IP=0,CHK-EKBDA24S0 < +0.2					
Supply voltage VC(V)	(+12.0~+24.0) ±5%					
Accuracy XG(%)	@IPN,T=25°C < ±1.0					
Temperature variation of IOE IOT(mA/°C)	@IP=0,-40 ~ +85°C < ±0.005					
Linearity error εr(%FS)	< 1.0					
Response time tra(ms)	@90% of IPN <20					

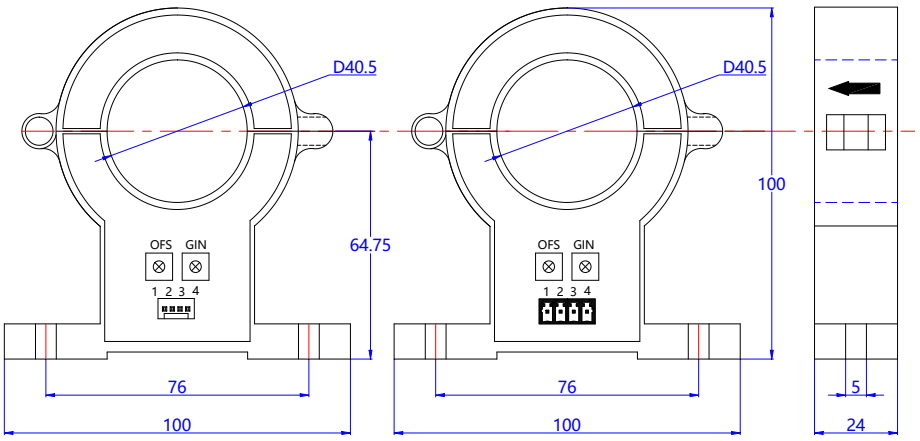
Power consumption IC(mA)	15+IO	
Bandwidth Bw(KHZ)	@-3dB,IPN	DC-2.0
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5

General data:

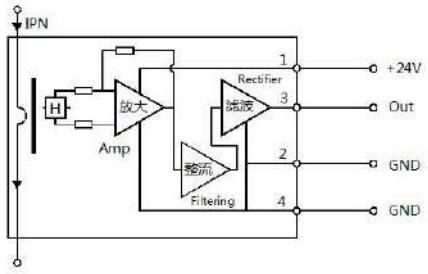
Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	120
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

CHK-EKBDA24S4M | CHK-EKBDA24S4S



Connection



General tolerance

General tolerance:< ±0.5mm

Primary through-hole： D40.5±0.3

Connection of Secondary :
CHK-EKBDA24S4M:
2510-04A (Instead of Molex 5045-04A)
CHK-EKBDA24S4S:
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.