



DATA SHEET

Hall Effect Current Sensor

PN: CHK_EKBDA24S4

IPN=200-2000A

Feature

- Open-loop current transducer using the hall effect
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Output signal can be directly acquisitioned 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



CE **RoHS**



Electrical data: (Ta=25°C, Vc=+24.0VDC)

Parameter \ Ref	CHK200E KBDA24S 4	CHK400E KBDA24S 4	CHK800E KBDA24S 4	CHK1000 EKBDA24 S4	CHK1500 EKBDA2 4S4	CHK2000 EKBDA24 S4
Rated input Ip(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 er(%FS)			< 1.0			
Response time tra(ms)	@90% of IPN		<20			



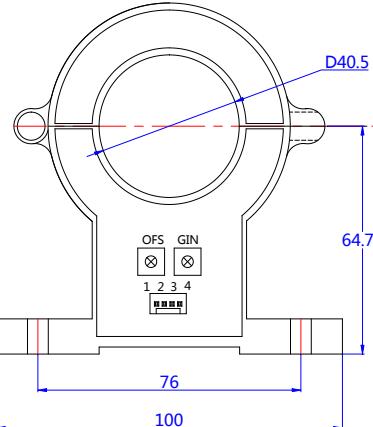
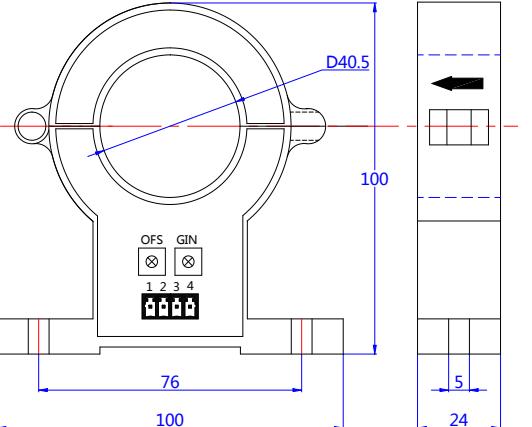
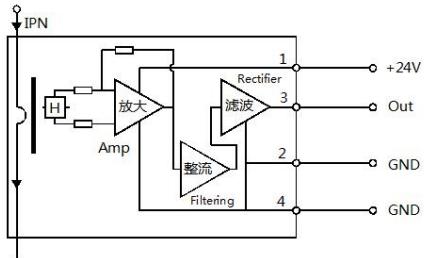
Cheemi Technology Co., Ltd

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

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; IEC60950-1:2001
Standards	EN50178:1998 SJ20790-2000

Dimensions(mm):

CHK-EKBDA24S4M	CHK-EKBDA24S4S	Connection
		 <p>General tolerance</p> <p>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</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 if fully filled with.
- The primary conductor should be <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.

