SHAANXI SHINHOM ENTERPRISE CO.,LTD

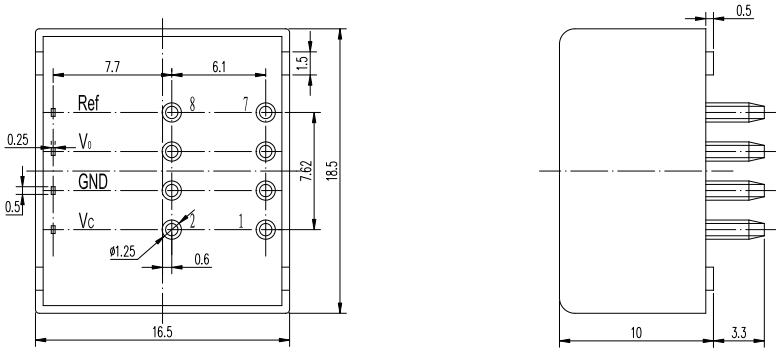
HBC-XS5 Series Hall Effect Current Sensor

HBC-XS5 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

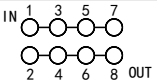
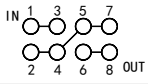
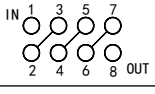
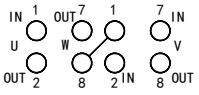
ELECTRICAL DATA

	HBC10XS5	HBC20XS5	HBC30XS5	HBC50XS5	
Rated input current	10	20	30	50	A
Test current range	32	64	96	150	A
Turns	1600	1600	1600	1333	T
Sampling resistor	100	50	33.3	16.667	Ω
Rated output voltage	0.625±0.5%				V
Supply voltage	+5±5%				V
Reference voltage（VR）	2.5±0.5%				V
Offset voltage Drift -40～+85℃	≤±0.5				mV℃
Linearity	≤±0.2				%FS
Class	≤±0.7				%
di/dt	＞50				A/μS
Response time	＜1				μS
Bandwidth	DC～200				KHZ
Insulation voltage	1.5				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Turns ratio	Rated input current IPN[A]	Rated output voltage VOUT[V]	Pri DCR[mΩ]	Pri inductance [uH]	Terminal
Single phase	1	±10(±20，±30,±50)	2.5±0.625	0.05	0.025	
	2	±5(±10，±15,±25)	2.5±0.625	0.20	0.1	
	4	±2.5(±5，±7.5, ±12.5)	2.5±0.625	1.00	0.4	
three-phase	1	±10(±20，±30)	2.5±0.625	0.05	0.025	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

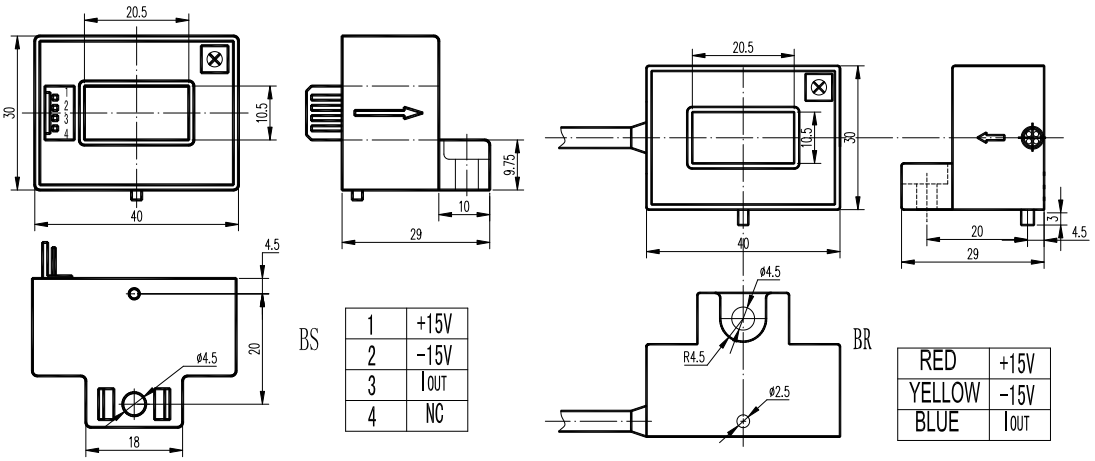
HBC-B Series Hall Effect Current Sensor

The HBC-B series current sensor is a closed loop device based on the principle of the Hall Effect and null balance method. The output from the current sensor is the balancing current which is a perfect image of the primary current reduced by the number of secondary turns at any time. This current can be expressed as a voltage by passing it through a resister. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC-50BS/BR	HBC-100BS/BR	HBC-200BS/BR	HBC-300BS/BR	
Rated Current	50	100	200	300	A
Measure Range	75(±18V,91Ω)	150(±18V,30Ω)	300(±18V,30Ω)	450(±18V,20Ω)	A
Turn	1：1000	1：1000	1：2000	1：3000	
Output current	50	100	100	100	mA
coil resister	20	20	25	35	Ω
Measuring resistance		10～50			Ω
Offset current		＜0.15			mA
Supply voltage		±12 ～±18			V
zero point drift	-25～+85℃	±0.05～±0.3			mA
	-40～-25℃	±0.1～±0.5			mA
Linearity		±0.1			%FS
Band width	-1db	0～150			KHZ
Response time		≤1			μS
Galvanic isolation	50HZ,1min	3.0			KV
Operating temperature		-40～+85			℃
Storage temperature		-40～+90			℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users' requirements.

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

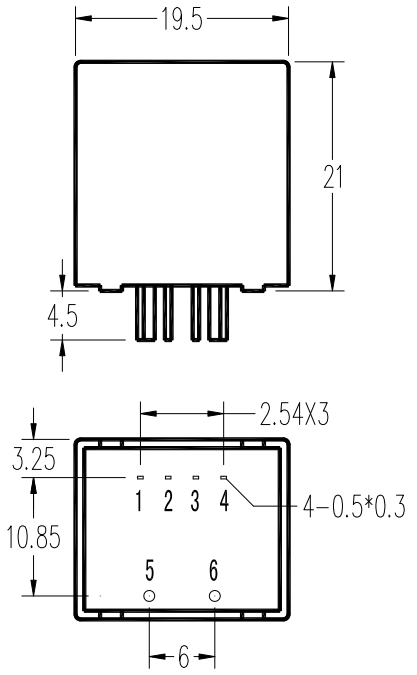
HBC03SY12 Series Hall Effect Current Sensor

The HBC03SY12 series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC03SY12	
Rated Current	3	A
Turns ratio	10：1000	
Pin size	Φ0.65	mm
Rated Output voltage	2.5±1%	V
Supply Voltage	12±5%	V
Static current consumption	≤15	mA
Zero current maladjustment	2.5V±20	mV
Offset Voltage Drift	≤±1.0	mV/℃
Linearity	≤±0.5	%FS
Response Time	＜1	μS
Isolation voltage (50HZ,1min)	2.5	KV
Operating Temperature	-20～+85	℃
Storage Temperature	-40～+105	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



引脚	接线
1	0V
2	NC
3	+12V
4	OUT
5	+IN
6	-IN

INSTRUCTIONS FOR USE

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users' requirements.

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

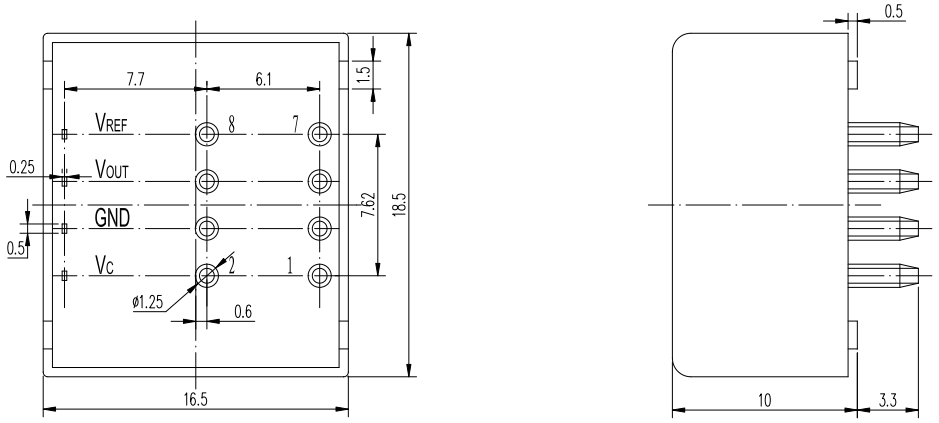
HBC20XS5 Series Hall Effect Current Sensor

The multi-range HBC20XS5 series current sensor is a closed loop device based on the principle of the Hall Effect and null balance method. The output from the current sensor is the balancing current which is a perfect image of the primary current reduced by the number of secondary turns at any time. This current can be expressed as a voltage by passing it through a resister. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

Type	HBC20XS5	
Rated Current	20	A
Measure Range	60	A
Turn Ratio	1600	T
Sampling Resistance	50±0.1%	Ω
Rated Output	0.625±0.5%	V
Supply Voltage	+5 ±5%	V
Offset Voltage	2.5±0.5%	V
Offset Voltage Drift	≤±0.5	mV/℃
Linearity	≤0.2	%FS
Total Accuracy	±0.7	%
di/dt	>50	A/us
Band Width(-3db)	DC～200	KHz
Response Time	<500	ns
Galvanic Isolation	2.5	KV
Operating Temperature	-40～+85	℃
Storage Temperature	-40～+85	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. Custom design in the nominal input current and the output voltage available.

SHAANXI SHINHOM ENTERPRISE CO.,LTD

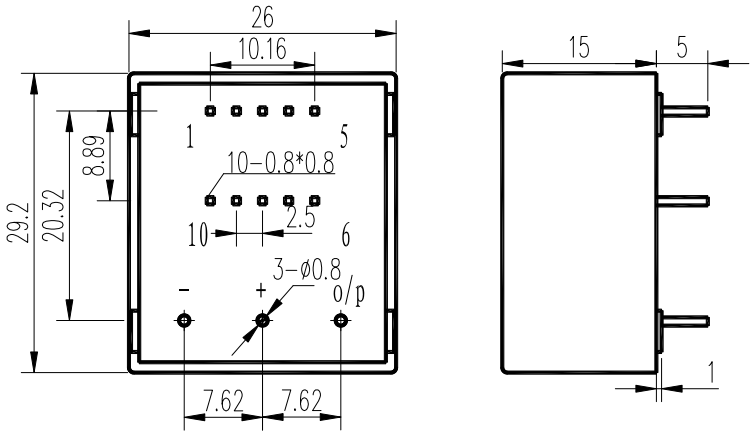
HBC-25A05 Series Hall Effect Current Sensor

The multi-range HBC-25A05 series current sensor is a closed loop device based on the principle of the Hall Effect and null balance method. The output from the current sensor is the balancing current which is a perfect image of the primary current reduced by the number of secondary turns at any time. This current can be expressed as a voltage by passing it through a resister. It provides accurate electronic measurement of DC, AC or pulsed currents.

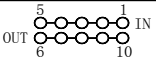
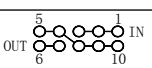
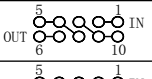
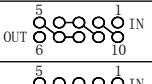
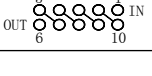
ELECTRICAL DATA

Type		HBC-25A05	
Rated Current		25	A
Measure Range		50	A
Rated Output		25±0.5%	mA
Supply Voltage		±15±5%	V
Turn Ratio		1-2-3-4-5:1000	
Consumption(Is=0)		±0.15	mA
Offset Drift	-40℃～+85℃	±0.5	mA
Response Time		＜1	μs
Linearity		≤0.2	%FS
Galvanic Isolation	50HZ,1min	2.5	KV
di/dt		＞50	A/μs
Band Width (-3dB)		DC…150	KHz
Secondary Resister		＜1.25	mΩ
Resistance of Secondary Coil		110	Ω
Operating Temperature		-40～+85	℃
Storage Temperature		-40～+125	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



PIN CONNECTIONS

Turn Ratio	Rated Current(A)	Measure Range (A)	Rated Output Current (mA)	Secondary Turns	Primary Resister (mΩ)	Primary Inductance (uH)	Pins Connections
1	25	50	25	1/1000	0.3	0.023	
2	12	24	24	2/1000	1.1	0.09	
3	8	16	24	3/1000	2.5	0.21	
4	6	12	24	4/1000	4.4	0.37	
5	5	10	25	5/1000	6.3	0.58	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

HBC25C04 Hall-effect Current Sensor Series

HBC25C04 series is a new generation of current sensor based on the principle of Hall-effect. It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input.

Electrical characteristics

	Type	HBC25C04		
I_{PN}	Primary nominal input current	25		A
I_P	Measuring primary current range	0～±55		A
I_{SN}	Nominal output current	25		mA
K_N	Turns ratio	1-2-3-4：1000		
R_M	Measurement resistance (V_C=±15V)	I_P =±25A 100-360	I_P =±36A 100-190	Ω
V_C	Supply voltage	±12～±15（±5%）		V
I_C	Current loss	V_C=±15V	10+Is	mA
V_d	Insulation voltage	5KV AC/50Hz/1min		

Dynamic characteristics

ε_L	Linearity	<0.1	%FS
X	Precision	T_A =25℃ V_C=±15V ±0.7	%
I_0	Offset current	T_A =25℃ <±0.15	mA
I_{OM}	Residual current	I_P→0 <±0.15	mA
I_{OT}	Offset current temperature drift	I_P=0 T_A =–25～+70℃ ±0.1～±0.65	mA/℃
T_R	Response time	<1	μs
f	Band width（-3dB）	DC~200	KHz

Generic characteristics

T_A	Operation temperature	–40～+85	℃
T_S	Storage temperature	–40～+125	℃
R_P	Primary internal resistance	≤1.25	MΩ
R_S	Secondary internal resistance	40	Ω
R_{IS}	Isolation resistance	≥1500	KΩ
	Standard		

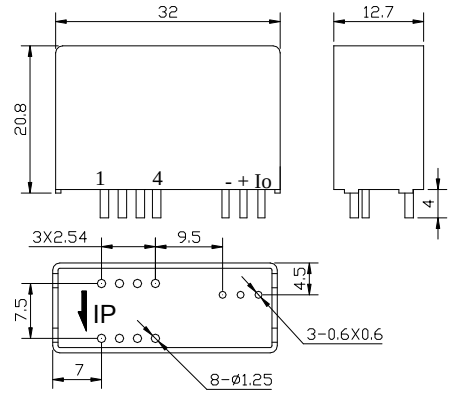
Advantages

- ◆ excellent precision ,good linearity
- ◆ better anti-jamming capability
- ◆ no insertion loss
- ◆ low temperature drift, ,broad frequency band width
- ◆ good current overload capability

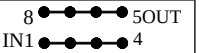
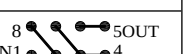
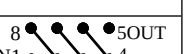
Typical applications

- ◆ measurement and control system
- ◆ alternating current frequency conversion timing system
- ◆ Electric and electron device protection
- ◆ Generator control and protection
- ◆ welding machine, UPS, switching power supplies

package outline（mm）



usage declaration

Turns ratio	Rated current IPN（A）	Peak current IP（A）	Output current IS（mA）	Primary connection
1:1000	25	36	25	
2:1000	12	18	24	
3:1000	8	12	24	
4:1000	6	9	24	

Elucidation：＋：＋15V －：－15V Io：Iout

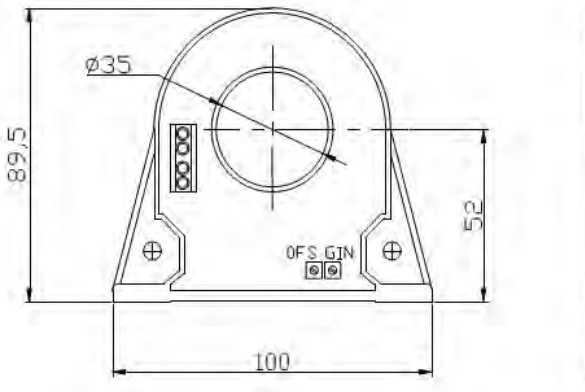
Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

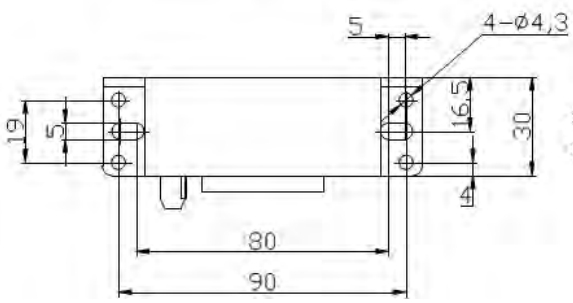
CURRENT TRANSDUCER **HBC-30AS-A1**

Performance parameter：current transducer：rated current 30A(DC),is able to isolate and measure the AC current and impulse current,output 4…20mA DC standard signal.

	Type	HBC-30AS-A1
IN	Rated current(DC)	30A
Ip	Measuring range(DC)	0～36A
RM	Measureing resistance	<300 ohms
IM	Output current	Rated output current 4…20mA(DC), corresponding to the primary current 0… IN
KN	Ratio	---
X	Accuracy（Ta=+25℃）	±1.0% of IN
Vc	supply voltage	±12V…15VDC
Vi	Isolation voltage	Between the primary and secondary:6KV RMS/50HZ/1 minutes
Ioff	Offset current	When the primary current IN=0，Max:4mA±0.2mA（Ta=+25℃）
Td	Temperature drift	0.05%/℃ of IM（Ta=-40℃～+85℃）
L	Linearity	<0.5%
T_r	Rrsponse time	<0.35S
	di/dt	---
f	Frequency range	DC
Ta	Operating temperature	-25℃～+85℃
Ts	Storage temperature	-40℃～+90℃
Ic	Power consumption	30mA+ IM
Rs	Secondary resistance	---
R_N	Primary resistance	---
W	Weight	360g

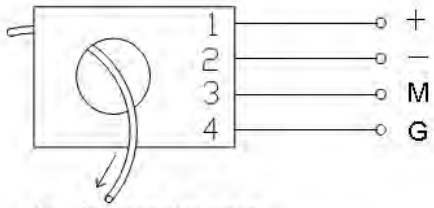
Dimensions（mm）：





OFS:Zero fine-tuning
GIN:Gain fine-tuning

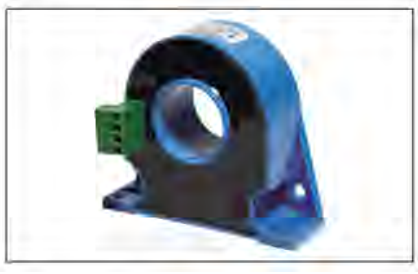
Circuit connection diagram：



I_N Measured current

Terminal description:

1:Power supply(+)
2:Power supply(-)
3:Output
4:Gnd



SHINHOM 陕西信鸿磁业科技有限公司

SHAANXI SHINHOM ENTERPRISE CO.,LTD

HBC50DS5 Hall-effect Current Sensor Series

HBC50DS5 series is a new generation of current sensor based on the principle of Hall-effect. It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input.

Electrical characteristics

	Type	HBC06DS5	HBC15DS5	HBC25DS5	HBC50DS5	
I_{PN}	Primary nominal input current	6	15	25	50	A
I_P	Measuring primary current range	19.2	48	80	150	A
R_M	Measurement resistance	100	100	50	50	Ω
V_{SN}	Nominal output voltage	0.625±0.5%	0.625±0.5%	0.625±0.5%	0.625±0.5%	V
K_N	Turns ratio	1:960	1:1200	1:2000	1:2000	
V_C	Supply voltage	+5 （±5%）				V
I_C	Current loss	20				mA
V_d	Insulation voltage	2.5KV AC/50Hz/1min				

Dynamic characteristics

ε_L	Linearity	≤0.1	%FS
X	Precision	T_A =25℃ ±0.7	q
V_0	Offset voltage	T_A =25℃ 2.5 ±0.5%	V
V_{OT}	Offset voltage temperature drift	I_P=0 T_A=-40~+85℃ ±0.5	mV/℃
T_R	Response time	<500	ns
f	Band width （-1dB）	DC~200	KHz

Generic characteristics

T_A	Operation temperature	-40~ +85	℃
T_S	Storage temperature	-40~ +125	℃
	Standard		

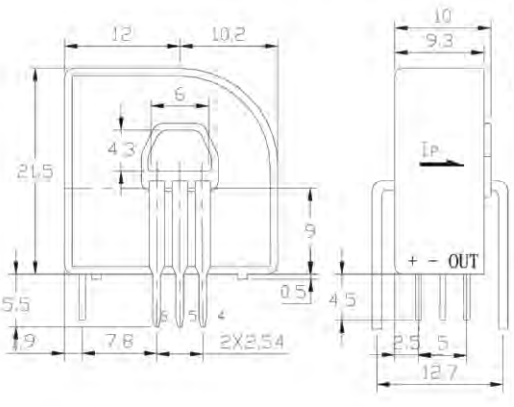
Advantages

- excellent precision ,good linearity, better anti-jamming capability
- easy to installation
- low temperature drift, quick response time, broad frequency band width
- PCB installation
- good over-current capability, competitive quality /price rate

Typical applications

- alternating current variable-speed generator tracking
- electric welding equipment for the control of the welding current
- DC generator static electricity commutation
- UPS, SMPS

package outline（*mm*）



Usage declaration: when IP flows from terminal1，2，3 to terminal 6，5，4, Vout is forward direction . For 50A primary current , customers had better use thick wire through the magnetic core hole to measure.

Connection diagram:

Primary	Primary rated current I_{PN} （A）	Primary resistance （mΩ）	Primary inductance （μH）	connection
1	±6(±15,±25,±50)	0.18	0.013	
2	±3(±7.5,±1.25,±25)	0.81	0.05	
3	±2(±5,±8.3,±16.6)	1.62	0.12	

E-mail: sales@shinhom.com.cn sales@shinhomtech.com
TEL: +86-029-87851838 FAX: +86-029-87851840

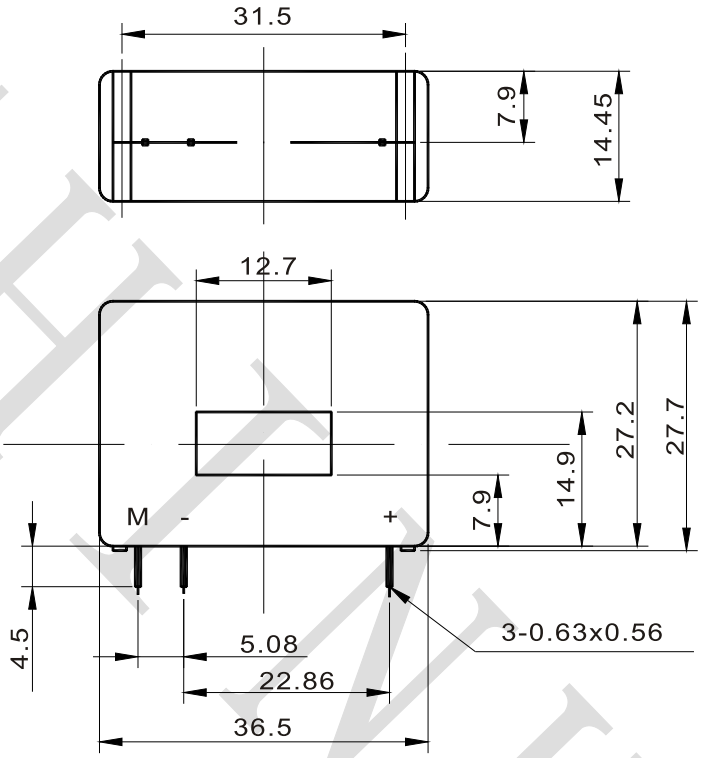
SHINHOM

SPECIFICATION FOR APPROVAL

LEAD FREE
RoHS compliance

CUSTOMER		PART NO:	HBC50LA
CUSTOMER P/N		NAME	Current Sensor
DATE	2010-12-10	HUMIDITY	48% (25 ℃)

MUTING DIMENSIONS



Closed loop (Compensated)current transducer using hall effect,
Insulated plastic case recognized according to UL94-V0(PCB mounted)

ELECTRICAL DATA

Nominal Current	50	A
Measuring range	0...±70	A
Turns ratio	1:1000	
Measuring resistance (Ta=70deg)	with±12V@±50A max-100(max)	Ω
	@±70A max-50(max)	Ω
	with±15V@±50A max-160(max)	Ω
	@±70A max-90(max)	Ω
Supply voltage	±12...15	V
Nominal analogue output -secondary current	50	mA
Accuracy at +25 ℃ @ ± 15V	0.65	%
Current consumption	10(@±15V)+output current	mA
RMS Voltage for AC isolation 50Hz 1 min	2.5	KV

PRPARED BY		APPROVED BY	

www.shinhom.com
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：Shinhom@globalsources.com

SHINHOM

SPECIFICATION FOR APPROVAL

LEAD FREE
RoHS compliance

CUSTOMER		PART NO:	HBC50LA
CUSTOMER P/N		NAME	Current Sensor
DATE	2010-12-10	HUMIDITY	48% (25 ℃)

Accuracy Dynamic Performance

Zero offset current Ta= 25 ℃	±0.2max	mA
Thermal drift of offset current	0℃~+70℃,±0.5max -25℃~+85℃,±0.6max	mA
Response time	<1	us
Linearity	≤0.15	%FS
Bandwidth(-3dB)	DC...200	KHz
di/dt	>200	A/us
Reaction time	<500	Ns

General Data

Secondary internal coil resistance	Ta=70℃ 80Ω & Ta=85℃ 85Ω	Ω
Operating temperature	-25~+85	℃
Storage temperature	-40~+90	℃
mass	18	G
Fastening & secondary connection Recommended PCB hole	3 pins 0.9mm	

PRPARED BY		APPROVED BY	

www.shinhom.com
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：Shinhom@globalsources.com

SHAANXI SHINHOM ELECTRONICS ENTERPRISE CO.,LTD

HBC-LA Series Hall Effect Current Sensor

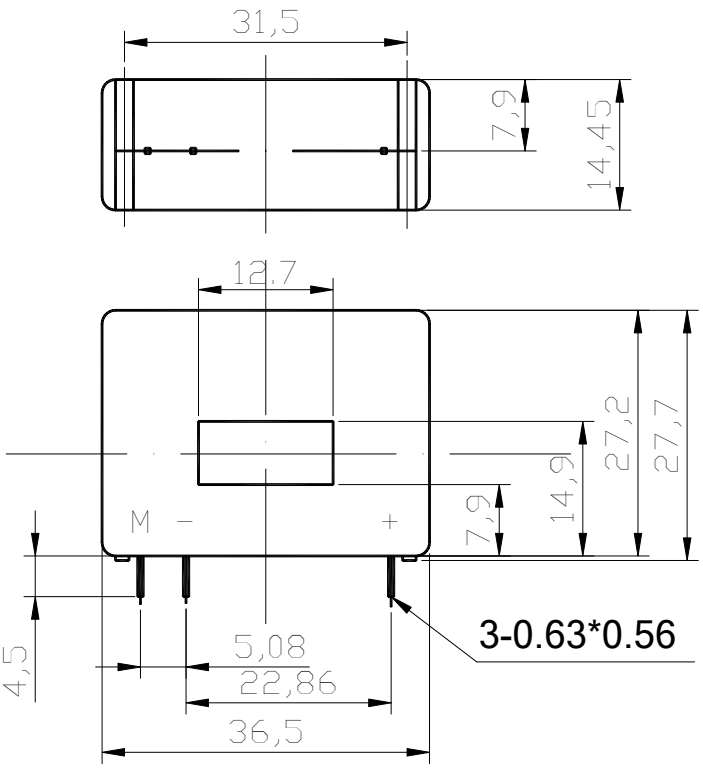
HBC-LA series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC50LA				
Rated current	50				A
Measure range	70				A
Rated output	50				mA
Supply voltage(±5%)	±12….±15				V
Measuring resistance		T_A=70℃		T_A=85℃		Ω
		$R_{m\ min}$	$R_{m\ max}$	$R_{m\ min}$	$R_{m\ max}$	
	@±50A max	50	160	135	155	Ω
	@±70A max	50	90	135	135	
Current consumption	10(@±15V)+ I_s					mA
Accuracy at +25°C	±0.65					%
Turn ratio	1:1000					
Response time	＜1					μs
Zero offset current Ta= 25°C	±0.2 max					mA
Thermal drift of offset current	-25°C ~ +85°C, ±0.6max					mA
Linearity	＜0.15					%FS
RMS Voltage for AC isolation 50Hz 1 min	4					KV
di/dt	＞200					A/μs
Band width(-1dB)	DC…200					KHz
Secondary internal coil resistance	T_A=70℃	80				Ω
	T_A=85℃	85				
Ambient Operating temperature	-25～+85					℃
Storage temperature	-40～+90					℃

Tel：029-87851838 Fax：029-87851840 Http://www.shinhom.com E-mail: sales@shinhom.com.cn

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. Custom design in the nominal input current and the output voltage available.

Tel：029-87851838 Fax：029-87851840 Http://www.shinhom.com E-mail: sales@shinhom.com.cn

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

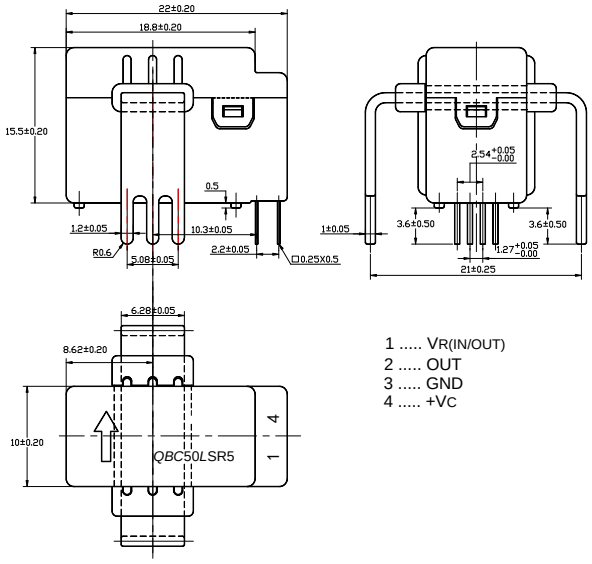
HBC50LSR5 Series Hall Effect Current Sensor

The HBC50LSR5 series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.

ELECTRICAL DATA

	HBC06 LSR5	HBC10 LSR5	HBC15 LSR5	HBC20 LSR5	HBC25 LSR5	HBC30 LSR5	HBC40 LSR5	HBC50 LSR5	
Rated input current(Ipn)	6	10	15	20	25	30	40	50	A
Test current range(Ip)	±15	±25	±37.5	±50	±62.5	±75	±100	±105	A
Turns ratio(Np/Ns)	1:1200	1:1000	1:1125	1:1000	1:1250	1:1125	1:1000	1:1000	T
Rated output voltage	±0.8±0.5%								V
Supply voltage	+5±5%								V
Offset Voltage	2.5±0.5%								V
Reference voltage（VR）	2.5±0.8%								V
External reference voltage	2.0-2.8								V
Offset voltage Drift	≤±0.1								mV/℃
Output voltage Drift	≤±0.05								mV/℃
Linearity(Ip=0-±Ipn)	≤±0.2								%FS
Precision	≤±1.0								%
di/dt	＞50								A/μS
Response Time	≤1								μS
Bandwidth(-1db)	DC～100								KHZ
Galvanic Isolation(50HZ,1min)	2.5								KV
Operating Temperature	-40～+85								℃
Storage Temperature	-40～+105								℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



1 ..... VR(IN/OUT)
2 ..... OUT
3 ..... GND
4 ..... +Vc

NOTES

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users' requirements.
3. Custom design in the nominal input current and the output voltage available.

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

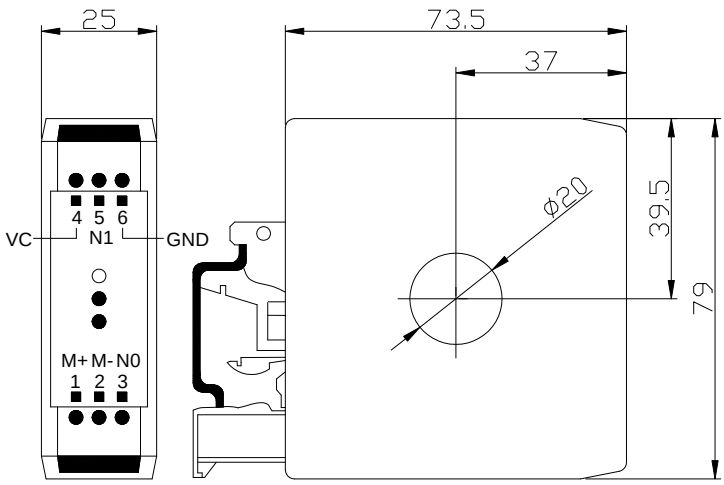
SHAANXI SHINHOM ENTERPRISE CO.,LTD

HALL-EFFECT CURRENT SENSOR

Specifications: DC current transducer, Nominal current 100…300A DC for measuring of DC current, output: 0…20mA DC

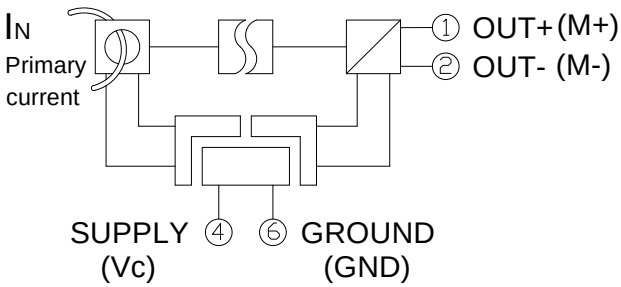
	Type	HBC-100ADS/A0	HBC-200ADS/A0	HBC-300ADS/A0
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0…120A	0…240A	0…360A
R_M	Measuring resistance	<300Ω		
I_M	Output current (DC)	Nominal output current 0…20mA, for primary nominal current 0…I_N		
X	Accuracy	I_N±1.0% (Ta =+25℃)		
K_N	Turns ratio	……		
Vc	Supply voltage	+24V (±5%)		
Ic	Current consumption	60mA+I_M (Output current)		
Vi	Isolation voltage	Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.		
Ioff	Offset current	±0.2mA max, for primary current I_N=0 (Ta =+25℃)		
Td	Temperature drift	I_M of 0.05%/℃ (Ta = -25…+85℃)		
L	Linearity	< 0.2%		
Tr	Response time	<0.35S		
	di/dt	……		
f	Frequency bandwidth	DC		
Ta	Operating temperature	-25℃…+85℃		
Ts	Storage temperature	-40℃…+90℃		
Rs	Secondary resistance	……		
R_N	Primary resistance	……		
W	Weight	85g		

Dimensions (mm):



DIN rail fastening

Connection:



Secondary terminals:
Terminal 1: output + (M+)
Terminal 2: output – (M-)
Terminal 3: non connection (N0)

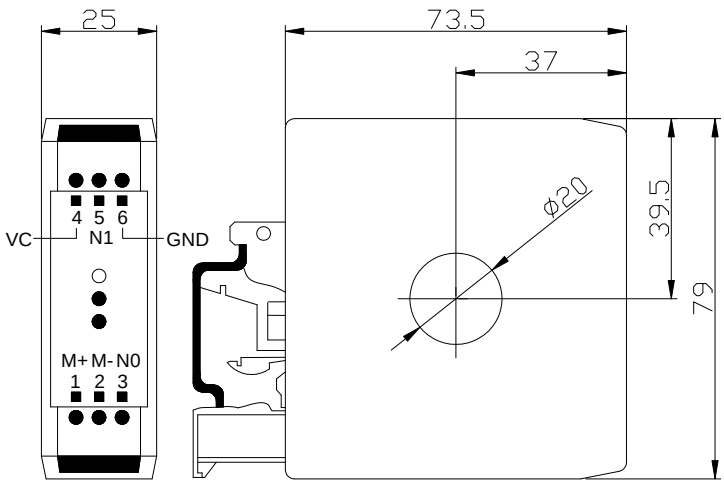
Supply terminals:
Terminal 4: supply voltage +24V (Vc)
Terminal 5: non connection (N1)
Terminal 6: ground (GND)

Specifications:

DC current transducer, Nominal current 100…300A DC for measuring of DC current, output: 4…20mA DC

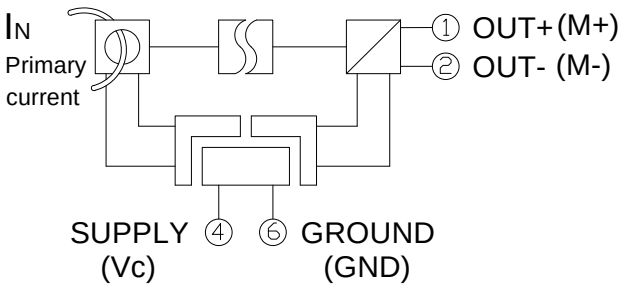
	Type	HBC-100ADS/A1	HBC-200ADS/A1	HBC-300ADS/A1
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0…120A	0…240A	0…360A
R_M	Measuring resistance	<300Ω		
I_M	Output current (DC)	Nominal output current 4…20mA, for primary nominal current 0…I_N		
X	Accuracy	I_N±1.0% (Ta =+25℃)		
K_N	Turns ratio	……		
Vc	Supply voltage	+24V (±5%)		
Ic	Current consumption	60mA+I_M (Output current)		
Vi	Isolation voltage	Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.		
Ioff	Offset current	4mA±0.2mA max, for primary current I_N=0 (Ta =+25℃)		
Td	Temperature drift	I_M of 0.05%/℃ (Ta = -25…+85℃)		
L	Linearity	< 0.2%		
Tr	Response time	<0.35S		
	di/dt	……		
f	Frequency bandwidth	DC		
Ta	Operating temperature	-25℃…+85℃		
Ts	Storage temperature	-40℃…+90℃		
Rs	Secondary resistance	……		
R_N	Primary resistance	……		
W	Weight	85g		

Dimensions (mm):



DIN rail fastening

Connection:



Secondary terminals:
Terminal 1: output + (M+)
Terminal 2: output – (M-)
Terminal 3: non connection (N0)

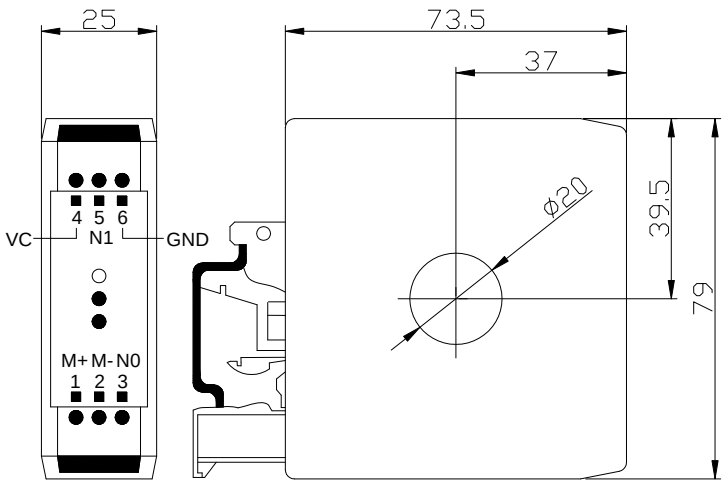
Supply terminals:
Terminal 4: supply voltage +24V (Vc)
Terminal 5: non connection (N1)
Terminal 6: ground (GND)

Specifications:

DC current transducer, Nominal current 100…300A DC for measuring of DC current, output: 0…5V DC

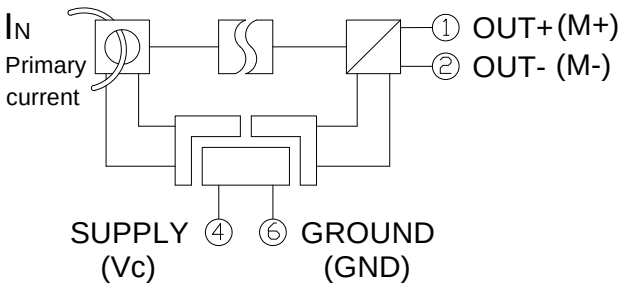
	Type	HBC-100ADS/V0	HBC-200ADS/V0	HBC-300ADS/V0
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0…120A	0…240A	0…360A
R_M	Measuring resistance	>10KΩ		
V_M	Output voltage (DC)	Nominal output voltage 0…5V, for primary nominal current 0…I_N		
X	Accuracy	I_N±1.0% (Ta =+25℃)		
K_N	Turns ratio	……		
Vc	Supply voltage	+24V (±5%)		
Ic	Current consumption	60mA		
Vi	Isolation voltage	Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.		
Voff	Offset voltage	±30mV max, for primary current I_N=0 (Ta =+25℃)		
Td	Temperature drift	I_M of 0.05%/℃ (Ta = -25…+85℃)		
L	Linearity	< 0.2%		
Tr	Response time	<0.35S		
	di/dt	……		
f	Frequency bandwidth	DC		
Ta	Operating temperature	-25℃…+85℃		
Ts	Storage temperature	-40℃…+90℃		
Rs	Secondary resistance	……		
R_N	Primary resistance	……		
W	Weight	85g		

Dimensions (mm):



DIN rail fastening

Connection:



Secondary terminals:
Terminal 1: output + (M+)
Terminal 2: output – (M-)
Terminal 3: non connection (N0)

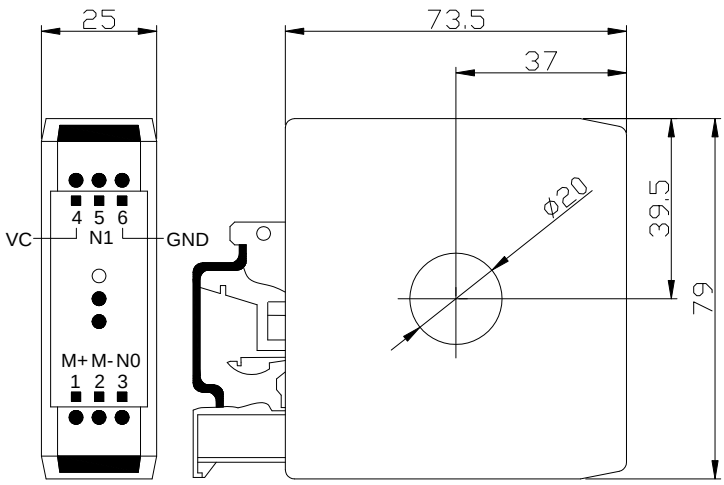
Supply terminals:
Terminal 4: supply voltage +24V (Vc)
Terminal 5: non connection (N1)
Terminal 6: ground (GND)

Specifications:

DC current transducer, Nominal current 100…300A DC for measuring of DC current, output: 1…5V DC

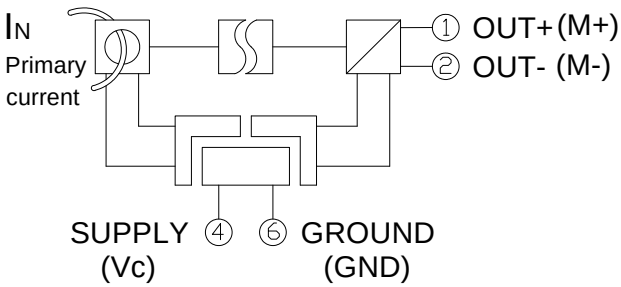
	Type	HBC-100ADS/V1	HBC-200ADS/V1	HBC-300ADS/V1
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0…120A	0…240A	0…360A
R_M	Measuring resistance	>10KΩ		
V_M	Output voltage (DC)	Nominal output voltage 1…5V, for primary nominal current 0…I_N		
X	Accuracy	I_N±1.0% (Ta =+25℃)		
K_N	Turns ratio	……		
Vc	Supply voltage	+24V (±5%)		
Ic	Current consumption	60mA		
Vi	Isolation voltage	Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.		
Voff	Offset voltage	1V±30mV max, for primary current I_N=0 (Ta =+25℃)		
Td	Temperature drift	I_M of 0.05%/℃ (Ta = -25…+85℃)		
L	Linearity	< 0.2%		
Tr	Response time	<0.35S		
	di/dt	……		
f	Frequency bandwidth	DC		
Ta	Operating temperature	-25℃…+85℃		
Ts	Storage temperature	-40℃…+90℃		
Rs	Secondary resistance	……		
R_N	Primary resistance	……		
W	Weight	85g		

Dimensions (mm):



DIN rail fastening

Connection:



Secondary terminals:
Terminal 1: output + (M+)
Terminal 2: output – (M-)
Terminal 3: non connection (N0)

Supply terminals:
Terminal 4: supply voltage +24V (Vc)
Terminal 5: non connection (N1)
Terminal 6: ground (GND)

SHAANXI SHINHOM ENTERPRISE CO.,LTD

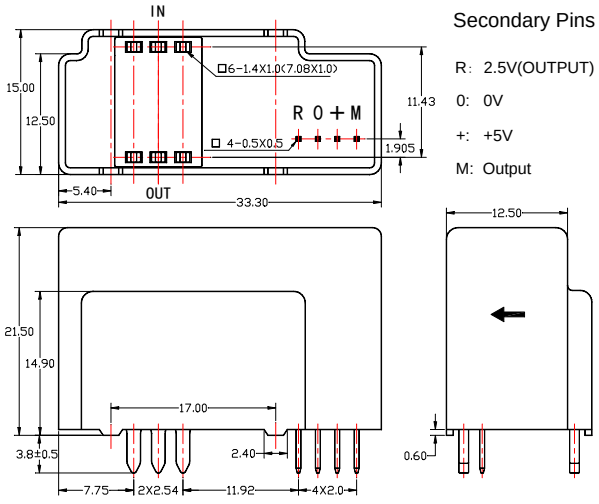
HBC100LAHS5 Series Hall Effect Current Sensor

HBC100LAHS5 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC100LAHS5	
Rated input current(Ipn)	100	A
Test current range(Ip)	±240	A
Turns ratio(Np/Ns)	1:1200	T
Rated output voltage	±0.625±0.5%	V
Supply voltage	+5±5%	V
Consumption current	20+ Ip *(Np/Ns)	mA
Offset voltage	2.5±0.4%	V
Reference voltage（VR）	2.5±0.5%	V
External reference voltage	2.0-2.8	V
Offset voltage Drift	≤±0.1	mV/℃
Output voltage Drift	≤±0.05	mV/℃
LinearityIp=0-±Ipn)	≤±0.2	%FS
Class	≤±1.0	%
di/dt	＞100	A/μS
Response time(100A/μS, 10%～90%)	≤1	μS
Bandwidth(-3db)	DC～100	KHZ
Insulation voltage(50HZ,AC,1min)	5.0	KV
Operating Temperature(TA)	-40～+85	℃
Storage Temperature(TS)	-40～+105	℃
Gross weight(M)	22	g

MUTING DIMENSIONS(FOR REFERENCE ONLY)



Secondary Pins

R: 2.5V(OUTPUT)

0: 0V

+: +5V

M: Output

INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users requirements.
3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

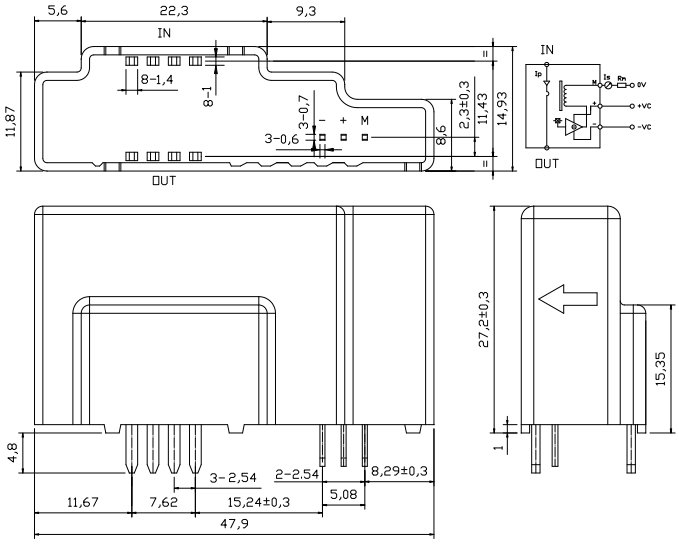
HBC125LAH Series Hall Effect Current Sensor

HBC125LAH series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.

ELECTRICAL DATA(25℃)

	HBC125LAH	
Rated input current(IPN)	125	A
Current range(IP)	0～±200	A
Load impedance (@IPN) ±12V(@±ADC)	14～48	Ω
±12V(@ARMS)	14～15	
±15V(@±ADC)	29～70	Ω
±15V(@ARMS)	29～29	
Sec. Rated current	125±0.5%	mA
Supply voltage(VC)	±12～±15±5%	V
Static power consumption current(25℃ @±15V)	≤±20	mA
Turns ratio	1:1000	
Zero current imbalance	≤±0.2	mA
Electric loss thermostat drift(-40℃～+85℃)	≤±0.95	mA
Response Time	＜1.0	μs
Linearity	≤±0.2	%FS
Insulation voltage(50/60HZ,1min)	2.5	KV
di/dt Tracing accurate	＞50	A/μs
Bandwidth(-3dB)	DC…100	KHz
Coil resistance @70℃	35	Ω
Operating Temperature	-40～+85	℃
Storage Temperature	-40～+105	℃

MUTING DIMENSIONS



NOTES

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users' requirements.
3. Custom design in the nominal input current and the output voltage available.

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

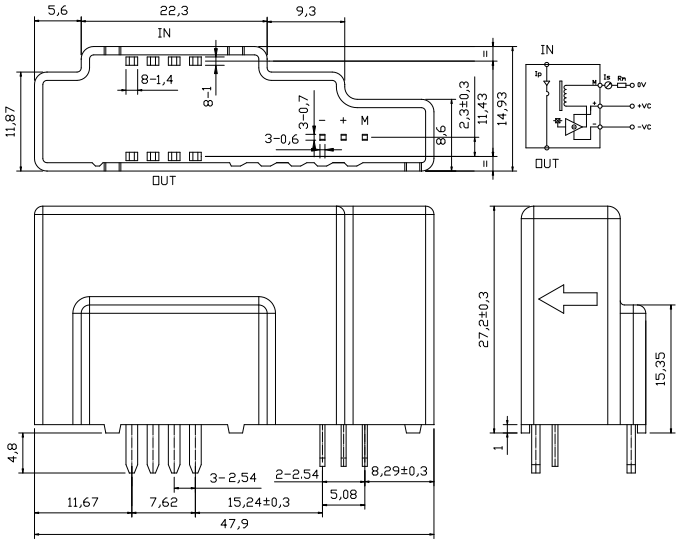
HBC125LAH Series Hall Effect Current Sensor

HBC125LAH series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.

ELECTRICAL DATA(25℃)

	HBC125LAH	
Rated input current(IPN)	125	A
Current range(IP)	0～±200	A
Load impedance (@IPN) ±12V(@±ADC)	14～48	Ω
±12V(@ARMS)	14～15	
±15V(@±ADC)	29～70	Ω
±15V(@ARMS)	29～29	
Sec. Rated current	125±0.5%	mA
Supply voltage(VC)	±12～±15±5%	V
Static power consumption current(25℃ @±15V)	≤±20	mA
Turns ratio	1:1000	
Zero current imbalance	≤±0.2	mA
Electric loss thermostat drift(-40℃～+85℃)	≤±0.95	mA
Response Time	＜1.0	μs
Linearity	≤±0.2	%FS
Insulation voltage(50/60HZ,1min)	2.5	KV
di/dt Tracing accurate	＞50	A/μs
Bandwidth(-3dB)	DC…100	KHz
Coil resistance @70℃	35	Ω
Operating Temperature	-40～+85	℃
Storage Temperature	-40～+105	℃

MUTING DIMENSIONS



NOTES

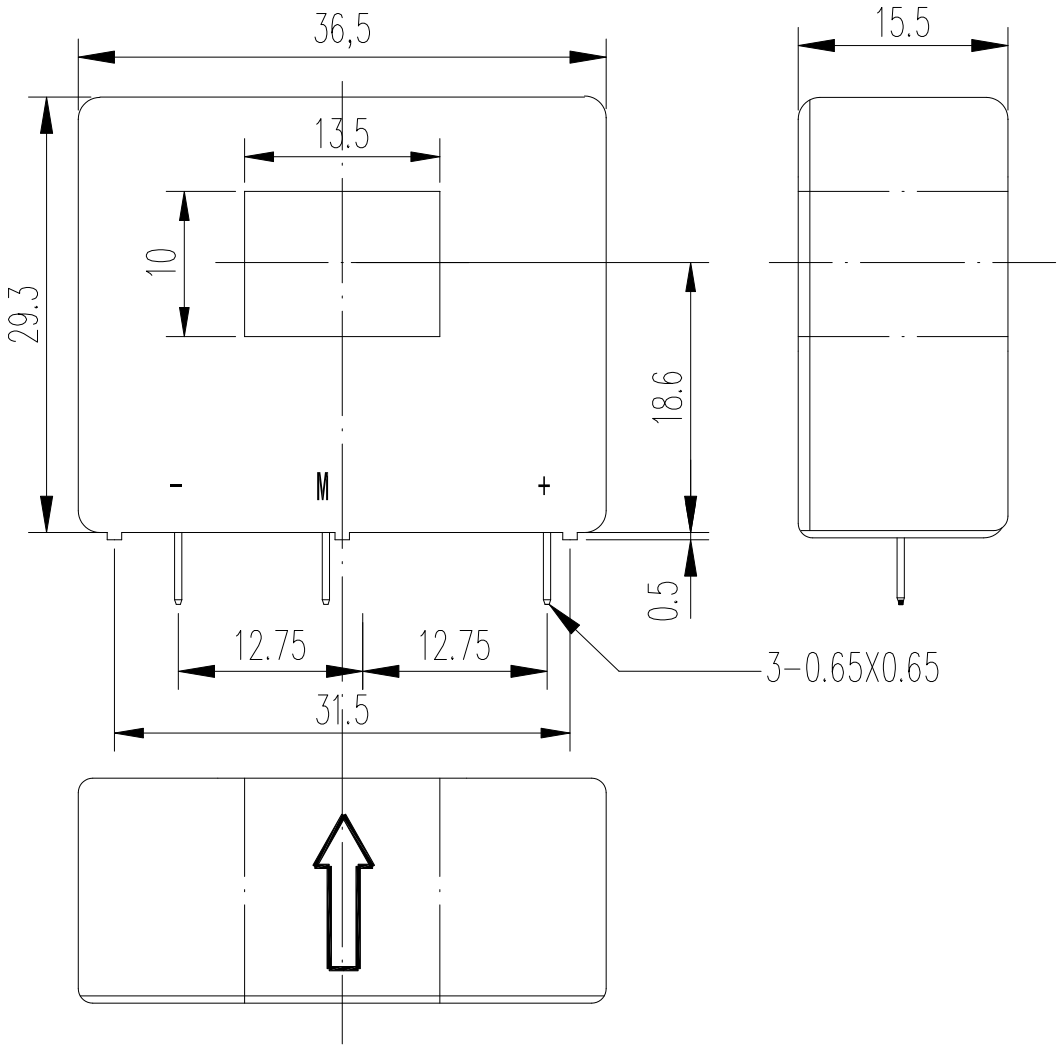
1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users' requirements.
3. Custom design in the nominal input current and the output voltage available.

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

HBC125LP/125mA Hall Effect Current Sensor

The HBC125LP/125mA current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

2. MUTING DIMENSIONS(FOR REFERENCEONLY)



3. ELECTRICAL DATA

Rated input Current	125	A
Test current range	180	A
Turns ratio	1:1000	
Rated output voltage	125±0.5%	mA
Supply Voltage	±15 ±5%	V
Static current consumption	≤±18	mA
Zero current maladjustment	±0.2	mA
Offset Voltage Drift	≤±0.015	mA/℃
Linearity	≤0.2	%FS
Response Time	<1	μS
Isolation voltage 50HZ,1min	2.5	KV
Operating Temperature	-20～+85	℃
Storage Temperature	-25～+85	℃

4. NOTES

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users' requirements.

SHAANXI SHINHOM ENTERPRISE CO.,LTD

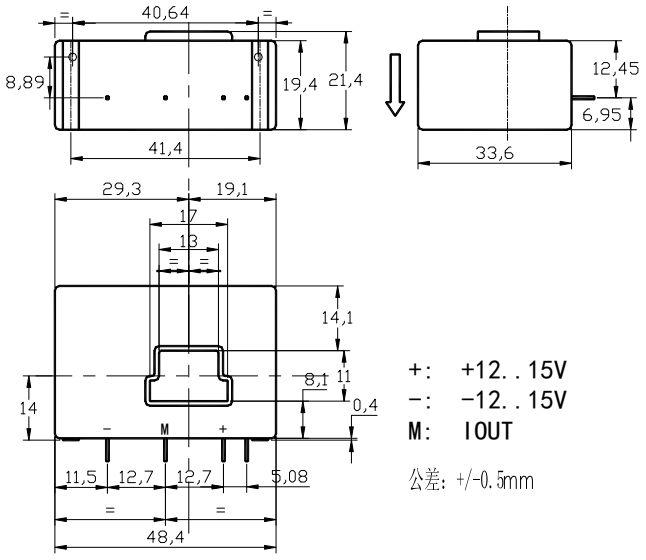
HBC200LAP-100mA Hall Effect Current Sensor

HBC200LAP-100mA current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC200LAP-100m A	
Rated input current(DC)	200	A
Test current range(DC)	±300	A
Rated output current	100±0.5%	mA
Supply voltage	±15±5%	V
Consumption current	≤±25+100(200A)	mA
Offset current	±0.3	mA
Offset current Drift	≤±0.03	mA/℃
Linearity	≤±0.25	%FS
Magnetic Offset current(200A-0A)	≤±0.5	mA
Response time	<1	μS
Sec resistance	76	Ω
Insulation voltage(50HZ,AC,1min)	2.5	KV
Operating Temperature(TA)	-20～+85	℃
Storage Temperature(TS)	-40～+105	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users requirements.
3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

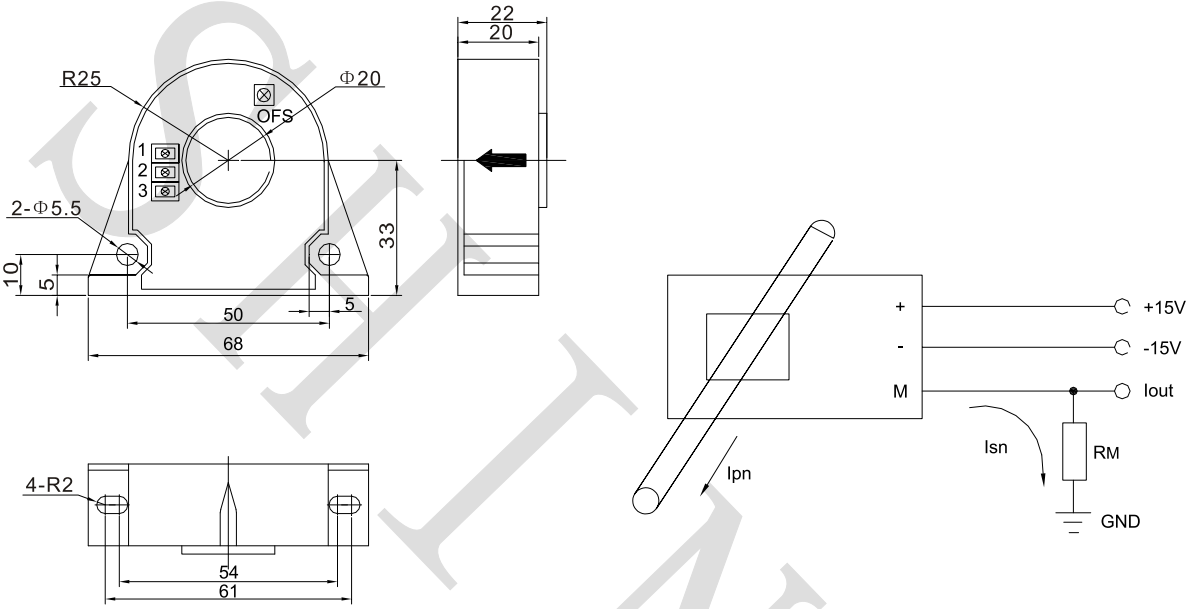
SHINHOM

SPECIFICATION FOR APPROVAL

LEAD FREE
RoHS compliance

CUSTOMER		PART NO:	HBC200LTA
CUSTOMER P/N		NAME	Current Sensor
DATE	2011-01-10	HUMIDITY	48% (25 ℃)

MUTING DIMENSIONS



Closed loop (Compensated)current transducer using hall effect,
Insulated plastic case recognized according to UL94-V0

ELECTRICAL DATA

Nominal Current	200	A
Measuring range	0...±300	A
Measuring overload	600	
Turns ratio	1:2000	
Measuring resistance (Ta=70deg)	with±12V@±200A max-68(max)	Ω
	@±300A max-33(max)	Ω
	with±15V@±200A max-95(max)	Ω
	@±300A max-50(max)	Ω
Supply voltage	±12...15	V
Nominal analogue output -secondary current	100	mA
Accuracy at +25 ℃	0.8	%
Current consumption	20(@±15V)+output current	mA
RMS rated Voltage	safe seperation-1625 Basic isolation-3250	V

PRPARED BY		APPROVED BY	

www.shinhom.com
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：Shinhom@globalsources.com

SHINHOM

SPECIFICATION FOR APPROVAL

LEAD FREE
RoHS compliance

CUSTOMER		PART NO:	HBC200LTA
CUSTOMER P/N		NAME	Current Sensor
DATE	2011-01-10	HUMIDITY	48% (25 ℃)

Accuracy Dynamic Performance

Zero offset current Ta= 25 ℃	±0.15max	mA
Thermal drift of offset current	-10℃~+85℃,±0.3max	mA
Response time	<1	us
Linearity	≤0.1	%FS
Bandwidth(-3dB)	DC...100	KHz
di/dt	>100	A/us

General Data

Secondary internal coil resistance	Ta=70℃ 35Ω & Ta=85℃ 37Ω	Ω
Operating temperature	-10~+85	℃
Storage temperature	-40~+90	℃

PRPARED BY		APPROVED BY	

www.shinhom.com
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：Shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

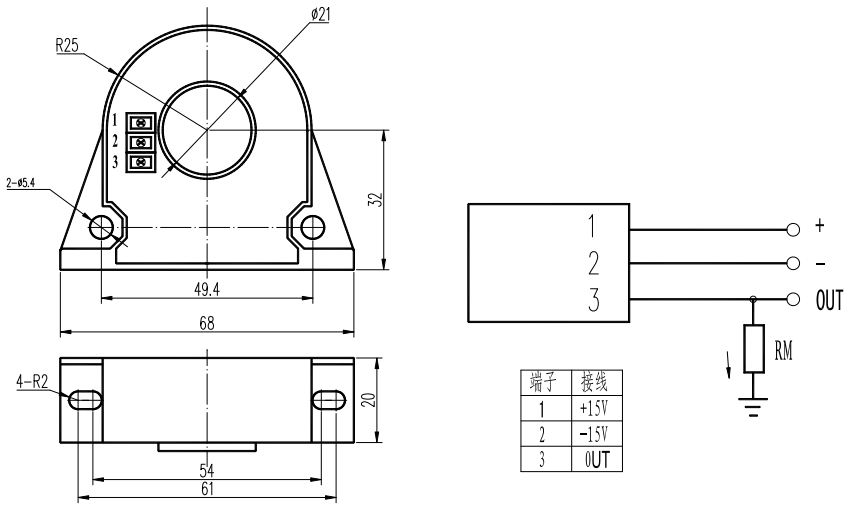
HBC200LTA-100mA Hall Effect Current Sensor

HBC200LTA-100mA current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC200LTA-100m A	
Rated input current(Ipn)	200	A
Test current range(Ip)	300	A
Rated output current	100±0.5%	mA
Supply voltage	±15±5%	V
Consumption current	≤±20	mA
Offset current	±0.2	mA
Offset current Drift	≤±0.015	mA/℃
Linearity	≤±0.2	%FS
Response time	<1	μS
Insulation voltage(50HZ,AC,1min)	2.5	KV
Operating Temperature(TA)	-20～+85	℃
Storage Temperature(TS)	-25～+85	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users requirements.
3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

HBC300LTA Hall-effect Current Sensor Series

HBC300LTA series is a new generation of current sensor based on the principle of Hall-effect. It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input.

Electrical characteristics

	Type	HBC050LTA	HBC100LTA	HBC200LTA	HBC300LTA	
I_{PN}	Primary nominal input current	50	100	200	300	A
I_P	Measuring primary current range	0～±150	0～±300	0～±600	0～±900	A
I_{SN}	Nominal output current	25	50	100	100	mA
K_N	Turns ratio	1：2000			1:3000	
R_M	Measurement resistance (V_C=±15V/ I_{PN})	100(max)	110(max)	120(max)	100(max)	Ω
	(V_C=±15V/ I_P)	50(max)	40(max)	30(max)	36(max)	Ω
V_C	Supply voltage	±12～±18（±5%）				V
I_C	Current loss	V_C=±15V	20+Is			mA
V_d	Insulation voltage	6KV AC/50Hz/1min				

Dynamic characteristics

ε_L	Linearity	<0.1	%FS
X	Precision	T_A =25℃ V_C=±15V ±0.7	%
I_0	Offset current	T_A =25℃ <±0.20	mA
I_{OM}	Residual current	I_P→0 <±0.20	mA
I_{OT}	Offset current temperature drift	I_P=0 T_A =-25～+85℃ ±0.10～±0.65	mA/℃
T_R	Response time	<1	μs
f	Band width（-3dB）	DC~100	KHz

Generic characteristics

T_A	Operation temperature	-40～+85				℃
T_S	Storage temperature	–40～+125				℃
R_S	Secondary internal resistance T_A =25℃	29	25	21	32	Ω

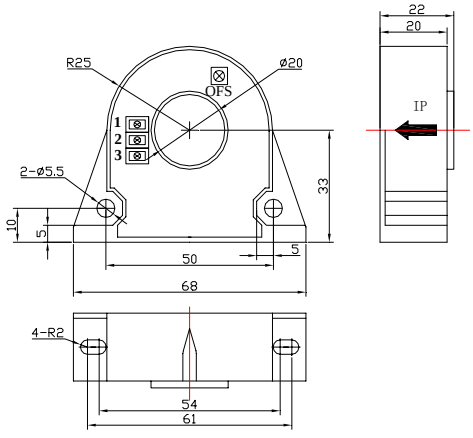
Advantages

- excellent precision ,good linearity
- better anti-jamming capability
- low temperature drift, quick response time
- broad frequency band width
- good over-current capability

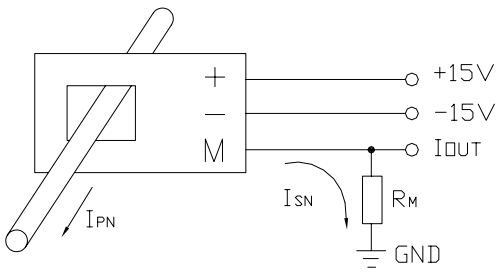
Typical applications

- alternating current variable-speed generator tracking
- welding equipment source
- DC generator static electricity commutation
- communication source 、battery source
- UPS, switching power supplies

package outline（*mm*）



circuit connection diagram



Elucidation：

1：+15V 2：－15V

3：Iout OFS：zero adjustment

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

HKC300LTA Hall-effect Current Sensor Series

HKC300LTA series is a new generation of current sensor based on the principle of Hall-effect. It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input.

Electrical characteristics

	Type	HBC050LTA	HBC100LTA	HBC200LTA	HBC300LTA	
I_{PN}	Primary nominal input current	50	100	200	300	A
I_P	Measuring primary current range	0～±150	0～±300	0～±600	0～±900	A
I_{SN}	Nominal output current	25	50	100	100	mA
K_N	Turns ratio	1：2000			1:3000	
R_M	Measurement resistance(V_C=±15V/ I_{PN})	100(max)	110(max)	120(max)	100(max)	Ω
	(V_C=±15V/ I_P)	50(max)	40(max)	30(max)	36(max)	Ω
V_C	Supply voltage	±12～±18（±5%）				V
I_C	Current loss	V_C=±15V	20+Is			mA
V_d	Insulation voltage	6KV AC/50Hz/1min				

Dynamic characteristics

ε_L	Linearity	<0.1	%FS
X	Precision	T_A =25℃ V_C=±15V ±0.7	%
I_0	Offset current	T_A =25℃ <±0.20	mA
I_{OM}	Residual current	I_P→0 <±0.20	mA
I_{OT}	Offset current temperature drift	I_P=0 T_A =-25～+85℃ ±0.10～±0.65	mA/℃
T_R	Response time	<1	μs
f	Band width（-3dB）	DC~100	KHz

Generic characteristics

T_A	Operation temperature	-40～+85				℃
T_S	Storage temperature	–40～+125				℃
R_S	Secondary internal resistance T_A =25℃	29	25	21	32	Ω
	Standard					

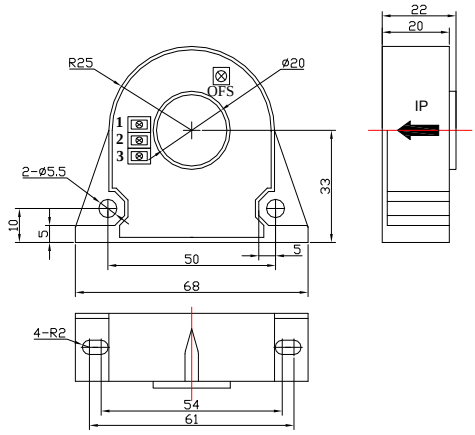
Advantages

- excellent precision ,good linearity
- better anti-jamming capability
- low temperature drift, quick response time
- broad frequency band width
- good over-current capability

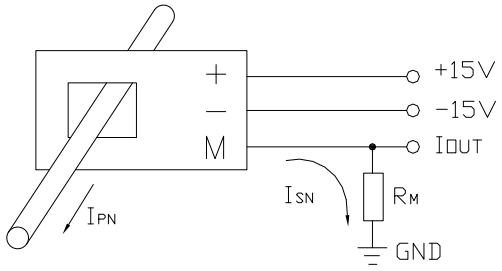
Typical applications

- alternating current variable-speed generator tracking
- welding equipment source
- DC generator static electricity commutation
- communication source 、battery source
- UPS, switching power supplies

package outline（mm）



circuit connection diagram



Elucidation：

1：+15V 2：－15V

3：Iout OFS：zero adjustment

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.co

SHAANXI SHINHOM ENTERPRISE CO.,LTD

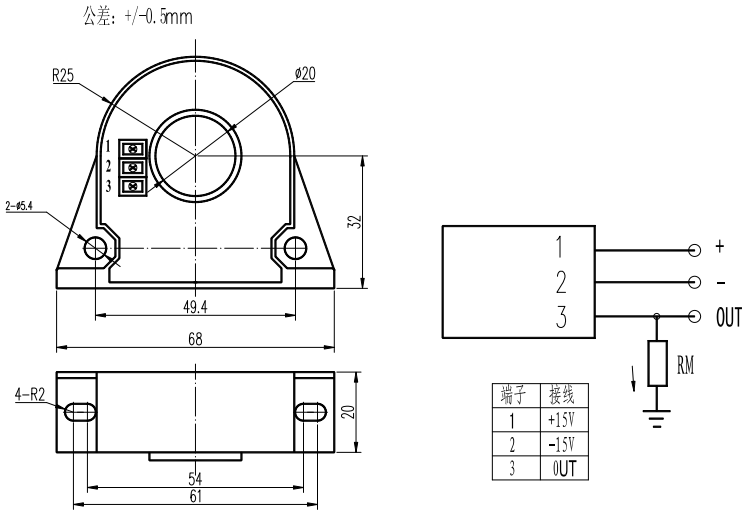
HBC300LTA-150mA Hall Effect Current Sensor

HBC300LTA-150mA current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC300LTA-150m A	
Rated input current(Ipn)	300	A
Test current range(Ip)	500	A
Rated output current	150±0.5%	mA
Supply voltage	±15±5%	V
Consumption current	≤±28	mA
Offset current	±0.2	mA
Offset current Drift	≤±0.015	mA/℃
Linearity	≤±0.2	%FS
Load resistance	0~26.67	Ω
Response time	<1	μS
Sec resistance	21	Ω
Insulation voltage(50HZ,AC,1min)	2.5	KV
Operating Temperature(TA)	-20～+85	℃
Storage Temperature(TS)	-25～+105	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users requirements.
3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

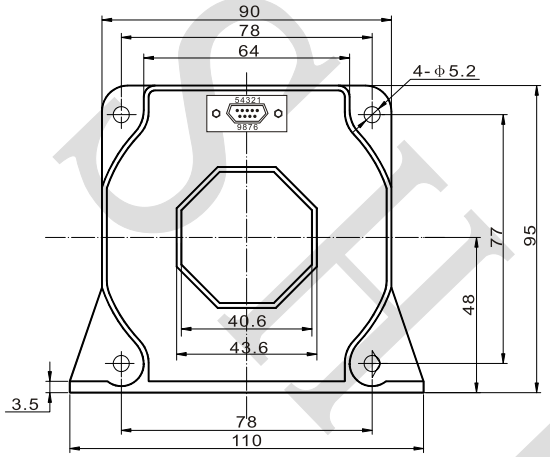
SHINHOM

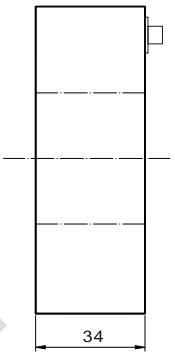
SPECIFICATION FOR APPROVAL

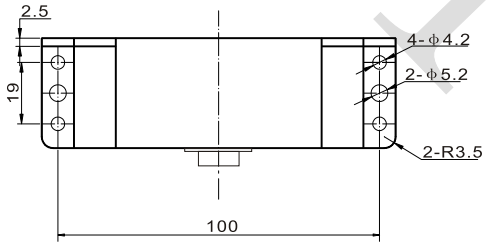
LEAD FREE
RoHS compliance

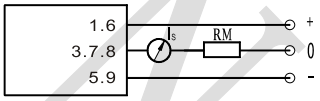
CUSTOMER		PART NO:	HBC500LF
CUSTOMER P/N		NAME	Current Sensor
DATE	2011-01-07	HUMIDITY	48% (25 ℃)

MUTING DIMENSIONS









Terminal 1: supply voltage +12~18V
Terminal 2: NC
Terminal 3: measure
Terminal 4: NC
Terminal 5: supply voltage -12~18V
Terminal 6: supply voltage +12~18V
Terminal 7: measure
Terminal 8: measure
Terminal 9: supply voltage -12~18V

Closed loop (Compensated)current transducer using hall effect,
Insulated plastic case recognized according to UL94-V0

ELECTRICAL DATA

Nominal Current	500	A
Measuring range	0...±800	A
Turns ratio	1:5000	
Measuring resistance (Ta=70deg)	with±12V@±500A max-50(max)	Ω
	@±800A max-10(max)	Ω
	with±18V@±500A max-100(max)	Ω
	@±800A max-45(max)	Ω
Supply voltage	±12...18	V
Nominal analogue output -secondary current	100	mA
Accuracy at +25 ℃	±0.65	%
Current consumption	14(@±15V)+output current	mA
RMS Voltage for AC isolation 50Hz 1 min	6	KV

PRPARED BY		APPROVED BY	

www.shinhom.com
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：Shinhom@globalsources.com

SHINHOM

SPECIFICATION FOR APPROVAL

LEAD FREE
RoHS compliance

CUSTOMER		PART NO:	HBC500LF
CUSTOMER P/N		NAME	Current Sensor
DATE	2011-01-07	HUMIDITY	48% (25 ℃)

Accuracy Dynamic Performance

Zero offset current Ta= 25 ℃	±0.4max	mA
Thermal drift of offset current	-10℃~+70℃,±0.4max	mA
Response time	<1	us
Linearity	≤0.1	%FS
Bandwidth(-3dB)	DC...150	KHz
di/dt	>100	A/us

General Data

Secondary internal coil resistance	Ta=70℃ 55Ω	Ω
Operating temperature	-10~+70	℃
Storage temperature	-25~+85	℃
mass	500	g

PRPARED BY		APPROVED BY	

www.shinhom.com
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：Shinhom@globalsources.com

SHAAN XI SHINHOM ENTERPRISE Co.,LTD

HBC500LTB Hall-effect Current Sensor Series

HBC500LTB series is a new generation of current sensor based on the principle of Hall-effect. It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input.

Electrical characteristics

	Type	HBC300LTA	HBC500LTB	
I_{PN}	Primary nominal input current	300	500	A
I_P	Measuring primary current range	600	1000	A
I_{SN}	Nominal output current	100±0.5%	100±0.5%	mA
K_N	Turns ratio	1：3000	1：5000	
R_M	Measurement resistance (V_C=±15V/ I_{PN})	110max)	100(max)	Ω
	(V_C=±18V/ I_{PN})	130(max)	120(max)	Ω
V_C	Supply voltage	±15~ ±24（±5%）		V
I_C	Current loss	V_C=±15V 20＋Is		mA
V_d	Insulation voltage	5KV AC/50Hz/1min		

Dynamic characteristics

ε_L	Linearity	≤ 0.2	%FS
I_0	Offset current	T_A =25℃ V_C =±15V ±0.2	mA
I_{OM}	Residual current	I_P→0 ±0.1	mA
I_{OT}	Offset current temperature drift	I_P=0 T_A=–10~ +70℃ ±0.20～±0.64	mA/℃
T_R	Response time	≤1	μs
f	Band width（-3dB）	DC~100	KHz

Generic characteristics

T_A	Operation temperature	-40~ +85		℃
T_S	Storage temperature	–25~ +125		℃
R_S	Secondary internal resistance T_A =25℃	31	45	Ω
	Standard			

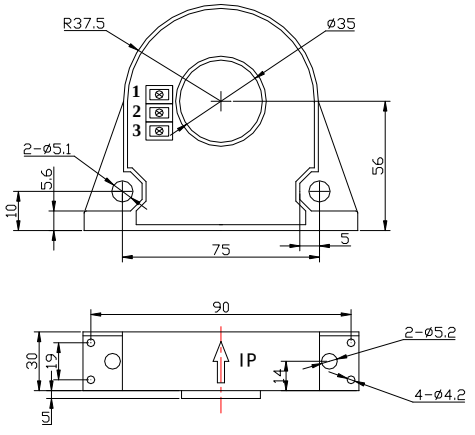
Advantages

- excellent precision ,good linearity
- better anti-jamming capability
- low temperature drift, quick response time
- broad frequency band width
- good over-current capability

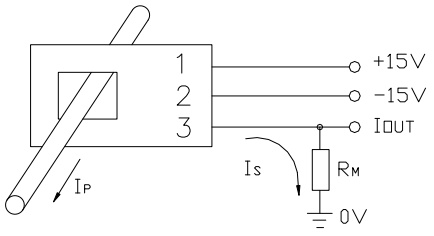
Typical applications

- alternating current variable-speed generator tracking
- welding equipment source
- DC generator static electricity commutation
- communication source 、battery source
- UPS, switching power supplies

package outline（mm）



circuit connection diagram



Pin：1：+15V 2：-15V 3：I_{OUT}

http://www.shinhom.com E-mail:shinhom@globalsources.com TEL:029-8785183 FAX:029-87851840

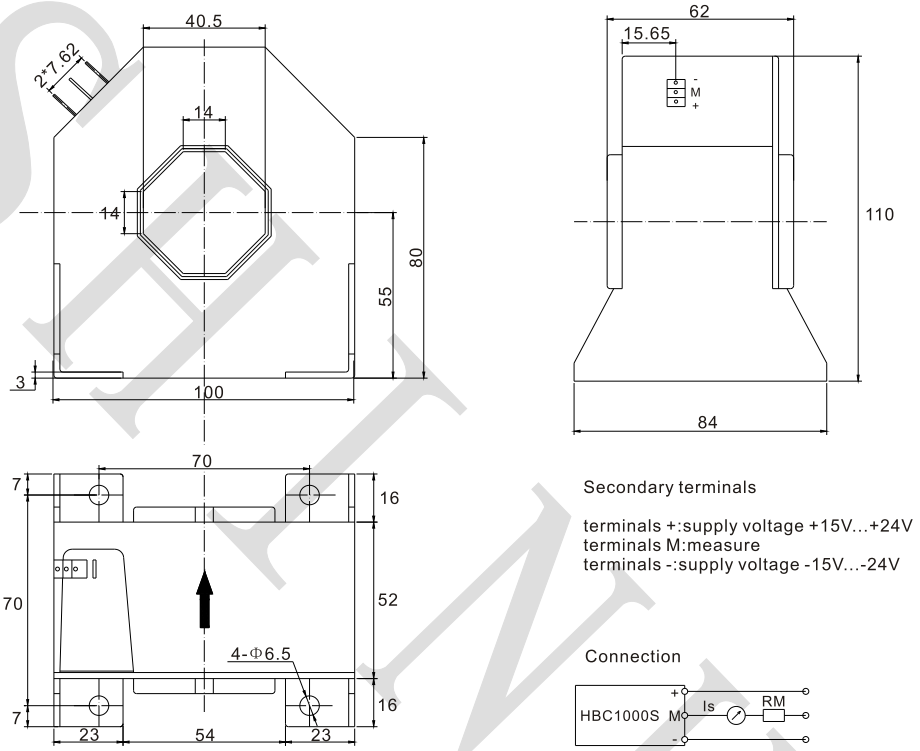
SHINHOM

SPECIFICATION FOR APPROVAL

LEAD FREE
RoHS compliance

CUSTOMER		PART NO:	HBC1000S
CUSTOMER P/N		NAME	Current Sensor
DATE	2010-12-10	HUMIDITY	48% (25 ℃)

MUTING DIMENSIONS



Closed loop (Compensated)current transducer using hall effect,
Insulated plastic case recognized according to UL94-V0(PCB mounted)

ELECTRICAL DATA

Nominal Current	1000	A
Measuring range	0...±1800	A
Turns ratio	1:3000	
Measuring resistance (Ta=70deg)	with±15V@±1000A max-22(max)	Ω
	@±1800A max-5(max)	Ω
Supply voltage	±15	V
Nominal analogue output -secondary current	333	mA
Accuracy at +25 ℃	±0.4	%
Current consumption	25+ output current	mA
RMS Voltage for AC isolation 50Hz 1 min	6	KV
RMS rated Voltage	safe seperation-1750 Basic isolation-3500	V

PRPARED BY		APPROVED BY	

SHINHOM

SPECIFICATION FOR APPROVAL

LEAD FREE
RoHS compliance

CUSTOMER		PART NO:	HBC1000S
CUSTOMER P/N		NAME	Current Sensor
DATE	2010-12-10	HUMIDITY	48% (25 ℃)

Accuracy Dynamic Performance

Zero offset current Ta= 25 ℃	±0.7max	mA
Thermal drift of offset current	-10℃~+70℃,±0.4max	mA
Response time	<1	us
Linearity	≤0.1	%FS
Bandwidth(-3dB)	DC...150	KHz
di/dt	>100	A/us

General Data

Secondary internal coil resistance	Ta=70℃ 17Ω	Ω
Operating temperature	-25~+70	℃
Storage temperature	-40~+85	℃
Mass	600	g

PRPARED BY		APPROVED BY	

www.shinhom.com
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：Shinhom@globalsources.com

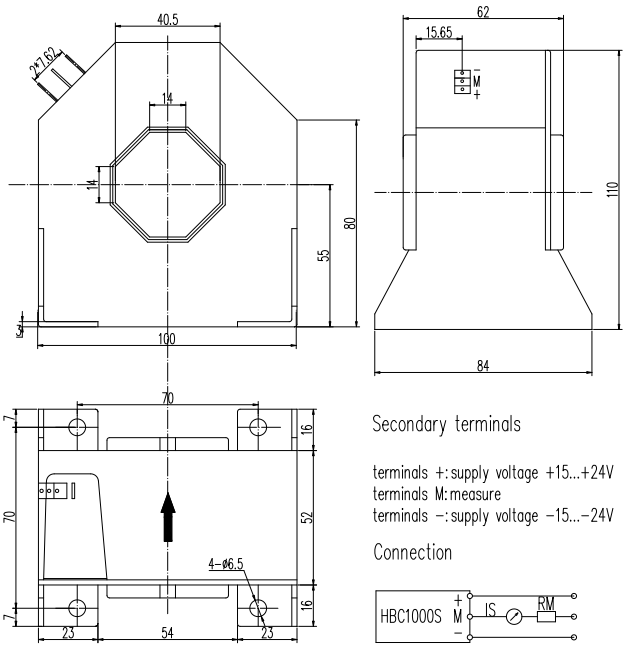
HBC-S Series Hall Effect Current Sensor

The HBC-S series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC-1000S		
Rated current	1000		A
Measure range	1800		A
Rated output	333		mA
Supply voltage(±5%)	±15		V
Measuring resistance (Ta=70deg)	with±15V @±1000Amax - 22(max)	30	Ω
	@ ±1800Amax - 5(max)	20	Ω
Current consumption	30(@±24V)+ I_s		mA
Accuracy at +25°C	±0.4		%
Rms rated voltage	Safe seperation	1750	V
	Basic isolation	3500	V
Turn ratio	1:3000		
Response time	＜1		μs
Zero offset current Ta= 25°C	±0.2 max		mA
Thermal drift of offset current	-20℃ ~ +85℃, ±0.5max		mA
Linearity	＜0.1		%FS
RMS Voltage for AC isolation 50Hz 1 min	6		KV
di/dt	＞100		A/μs
Band width(-1dB)	DC…150		KHz
Secondary internal coil resistance	17		Ω
Ambient Operating temperature	-20～+85		℃
Storage temperature	-40～+105		℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



DIRECTIONS FOR USE

1. Is will be in a forward direction when the Ip flows according to the direction of the arrowhead.
2. The primary conductor should be≤ 120℃.
3. The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.
4. The primary turns should be at the top of the sensor for the best magnetic coupling.

SHAAN XI SHINHOM ENTERPRISE CO.,LTD

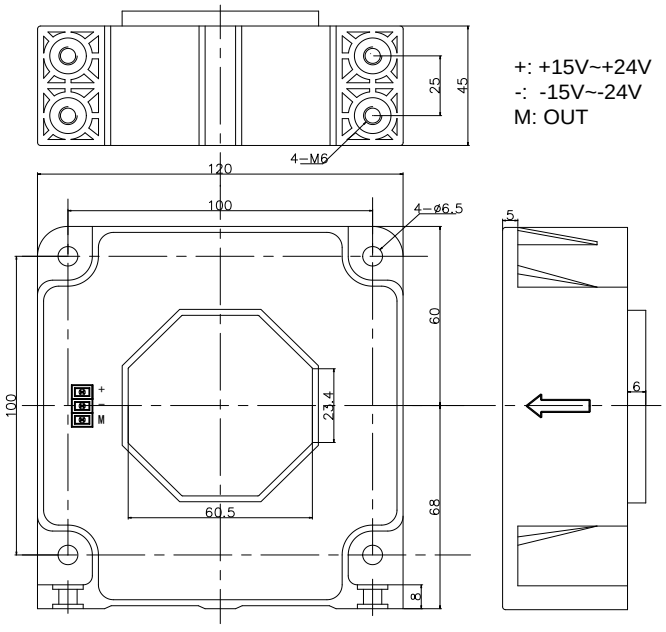
HBC-LSH Hall Effect Current Sensor

HBC-LSH series closed loop current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA(25℃)

		HBC2000LSH	
Rated Input current(IP)		20-2000	A
Measure current range		3000	A
Measure resistance	with±15V @±2000Amax	0(min) 5.0(max)	Ω
	@±2500Amax	0(min) 2.0(max)	Ω
	with±24V @±2000Amax	0(min) 25(max)	Ω
	@±3000Amax	0(min) 5.0(max)	Ω
Turns ratio		1:5000	
Rated Output current(IS)		4(20A)-400(2000A)±0.25%	mA
Supply voltage		±15～±24	V
Static current consumption		IS+35	mA
Zero offset current		±0.25	mA
Thermal drift of offset current	-40℃～85℃	±0.5	mA
Response time		＜1	μs
Linearity		≤0.1	%FS
Insulation voltage	50HZ,1min	6	KV
di/dt		＞100	A/μs
Band width(-3dB)		DC…100	KHz
Sec coil resistance		28	Ω
Operating temperature		-40～+85	℃
Storage temperature		-40～+125	℃

DIMENSIONS



DIRECTIONS FOR USE

1.IS is positive when IP flows in the direction of the arrow.;
2.Temperature of the primary conductor should not exceed100°C;

mail：shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

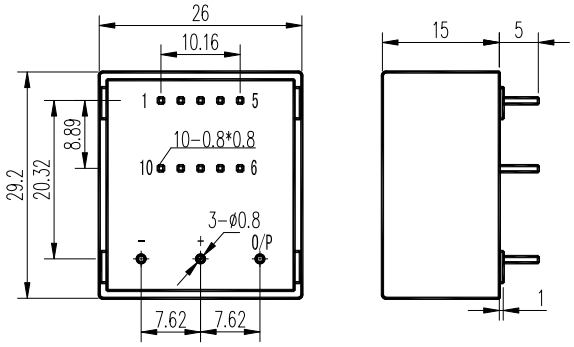
HBC-25A05 Series Hall Effect Current Sensor

HBC25A05 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

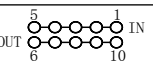
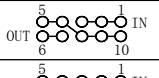
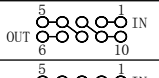
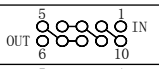
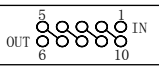
ELECTRICAL DATA

	HBC25A05	
Rated input current	25	A
Test current range	36	A
Load impedance(@rated current)	100～320（±15V）	Ω
Rated output current	25±0.5%	mA
Supply voltage	±15±5%	V
The supply consumes current statically 25℃	±12	mA
Turns ratio	1:1000	
Zero offset current	≤±0.15	mA
Offset current Drift -40℃～+85℃	≤±0.60	mA
Response time	＜1	μs
Linearity	≤±0.2	%FS
Insulation voltage 50HZ,1min	2.5	KV
di/dt	＞50	A/μs
Bandwidth(-3dB)	DC…150	KHz
Sec winding resistance	110	Ω
Operating Temperature	-40～+85	℃
Storage Temperature	-40～+105	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(Ipn)	Peak input current(Ip)	Rated output Current(mA)	Turns ratio	Pri Z mΩ	Pri Lk uH	Terminal
1	25	50	25	1/1000	0.3	0.023	
2	12	24	24	2/1000	1.1	0.09	
3	8	16	24	3/1000	2.5	0.21	
4	6	12	24	4/1000	4.4	0.37	
5	5	10	25	5/1000	6.3	0.58	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

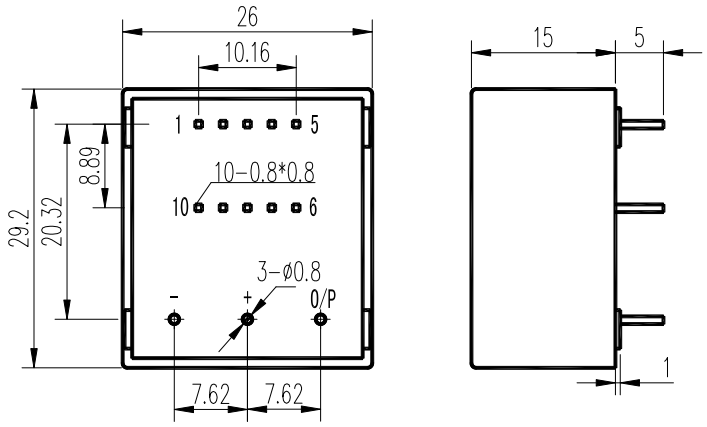
HBC25A05 Series Hall Effect Current Sensor

The HBC25A05 series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

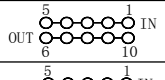
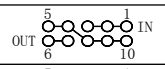
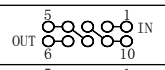
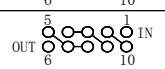
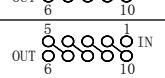
ELECTRICAL DATA

		HBC25A05	
Rated Current		25	A
Measure Range		36	A
Load resistance		100～320（±15V）	Ω
Rated Output current		25±0.5%	mA
Supply Voltage		±15±5%	V
static consumption	25℃	±12	mA
Turns ratio		1:1000	
Offset current		≤±0.15	mA
Offset current Drift	-40℃～+85℃	≤±0.60	mA
Response Time		＜1	μs
Linearity		≤±0.2	%FS
Insulation voltage	50HZ,1min	2.5	KV
di/dt		＞50	A/μs
Bandwidth(-3dB)		DC…150	KHz
Edge resistance/Ts		＜1.25	mΩ
Sec resistance		110	Ω
Operating Temperature		-40～+85	℃
Storage Temperature		-40～+105	℃

MUTING DIMENSIONS)



USAGE DECLARATION

Turns	Rated input current IPN	Max input current IP	Rated output current mA	Turns ratio	Pri DCR mΩ	Pri Lk uH	Pri
1	25	50	25	1/1000	0.3	0.023	
2	12	24	24	2/1000	1.1	0.09	
3	8	16	24	3/1000	2.5	0.21	
4	6	12	24	4/1000	4.4	0.37	
5	5	10	25	5/1000	6.3	0.58	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

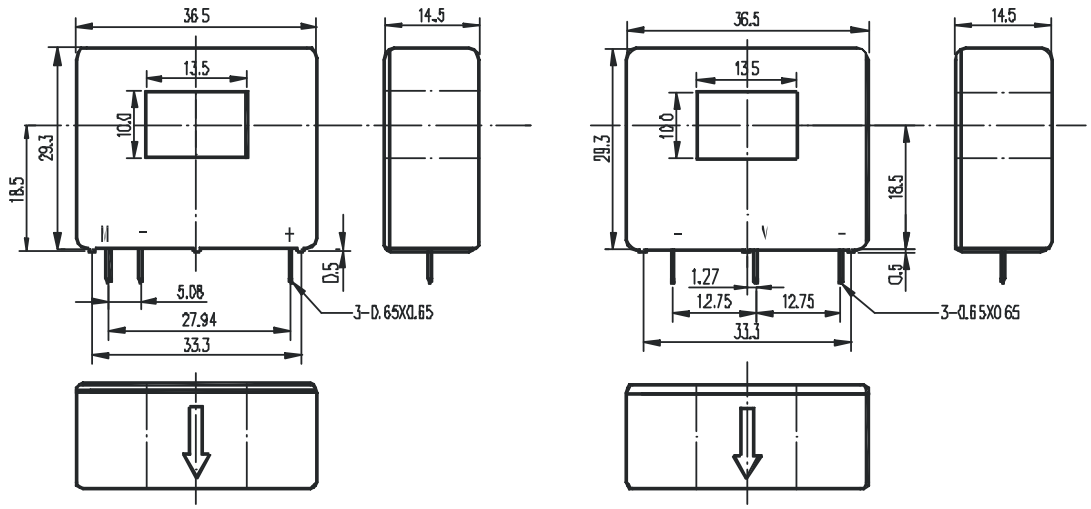
HBC-AP Series Hall Effect Current Sensor

The HBC-AP series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

Item	HBC50AP	HBC100AP	HBC125AP	HBC200AP	
Rated Current	50	100	125	200	A
Measure Range	100	200	200	300	A
Turns ratio	1:1000	1:2000	1:1000	1:2000	
Sec resistance	30	45	30	76	Ω
Load resistance	50～160	20～120	30～60	0～56	Ω
Rated Output current	50±0.5%	50±0.5%	125±0.5%	100±0.5%	mA
Supply Voltage				±12～±15	V
Offset current				≤±0.2	mA
Offset current Drift				≤±0.005	mA/℃
Linearity				≤±0.2	%FS
Bandwidth（-3db）				0～200	KHz
Response Time（100A/us）				≤1	us
Insulation				3.0	KV
Operating Temperature				-40～+85	℃
Storage Temperature				-40～+105	℃

INSTRUCTIONS FOR USE



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users' requirements.

3. Custom design in the nominal input current and the output voltage available

SHAANXI SHINHOM ENTERPRISE CO.,LTD

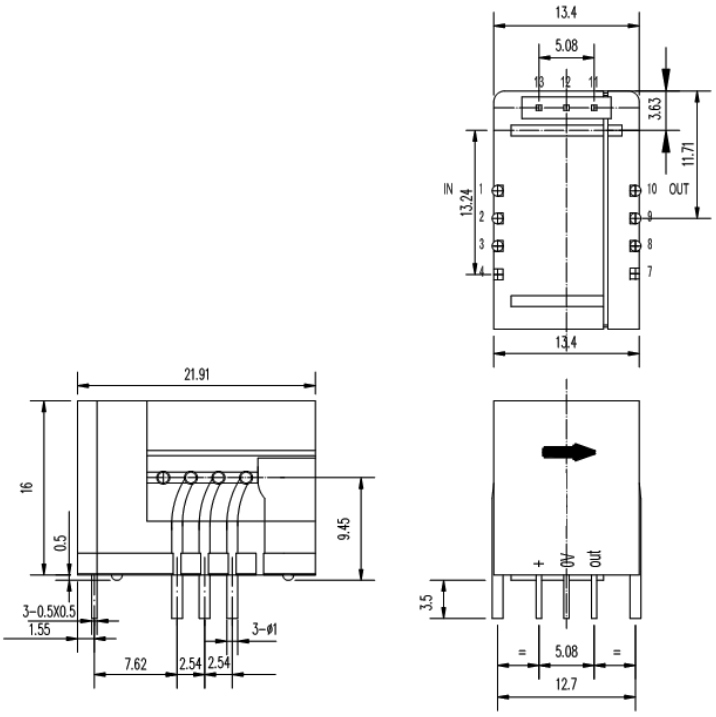
HBC-CAS Series Hall Effect Current Sensor

The HBC-CAS series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.

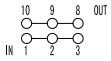
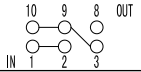
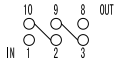
ELECTRICAL DATA

	HBC06CAS	HBC15CAS	HBC25CAS	HBC50CAS	
Rated input current	6	15	25	50	A
Test current range	±19.2	±48	±80	±100	A
Turns ratio	960	1200	2000	2000	T
Rated output voltage	0.625±0.5%	0.625±0.5%	0.625±0.5%	0.625±0.5%	V
Supply voltage	+5±5%				V
Offset Voltage	2.5±0.5%				V
Offset voltage drift(-40～+85℃)	≤±0.5				mV/℃
Linearity	≤0.1				%FS
Precision	±0.7				%
di/dt	＞50				A/μS
Response Time	＜500				nS
Bandwidth(-1db)	DC～200				KHZ
Isolation voltage(50HZ,1min)	2.5				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+125				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current (Ipn)[A]	Rated output voltage Vout[V]	Pri DCR [mΩ]	Terminal
1	±6(±15，±25，±50)	2.5±0.625	0.24	
2	±3(±7.5, ±12.5, ±25)	2.5±0.625	1.08	
3	±2(±5, ±8.3, ±16.6)	2.5±0.625	2.16	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:sales@shinhom.com.cn

SHAANXI SHINHOM ENTERPRISE CO.,LTD

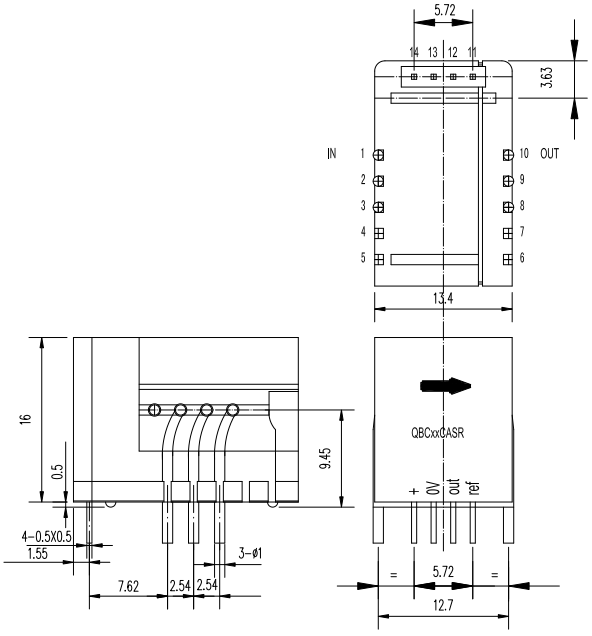
HBC-CASR Series Hall Effect Current Sensor

The HBC-CASR series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.

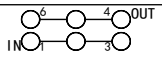
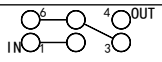
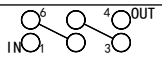
ELECTRICAL DATA

	HBC06CASR	HBC15CASR	HBC25CASR	HBC50CASR	
Rated input current(Ipn)	6	15	25	50	A
Test current range(Ip)	19.2	48	80	100	A
Turns ratio(Np/Ns)	960	1200	2000	2000	T
Rated output voltage	0.625±0.5%	0.625±0.5%	0.625±0.5%	0.625±0.5%	V
Supply voltage	+5±5%				V
Reference voltage(Vref)	2.500±1%				V
Reference voltage drift(-40～+85℃)	≤±0.2				mV/℃
Offset Voltage	2.5±0.5%				V
Offset voltage drift(-40～+85℃)	≤±0.5				mV/℃
Linearity	≤±0.2				%FS
Precision	≤±0.7				%
di/dt	＞50				A/μS
Response Time	＜500				nS
Bandwidth	(-1db) DC～200				KHZ
Galvanic Isolation	50HZ,1min,2.5				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(Ipn) [A]	Rated output voltage VOUT[V]	Pri DCR [mΩ]	Pri inductance [uH]	Terminal
1	±6(±15，±25，±50)	2.5±0.625	0.18	0.013	
2	±3(±7.5,±12.5,±25)	2.5±0.625	0.81	0.05	
3	±2(±5,±8.3,±16.6)	2.5±0.625	1.62	0.12	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

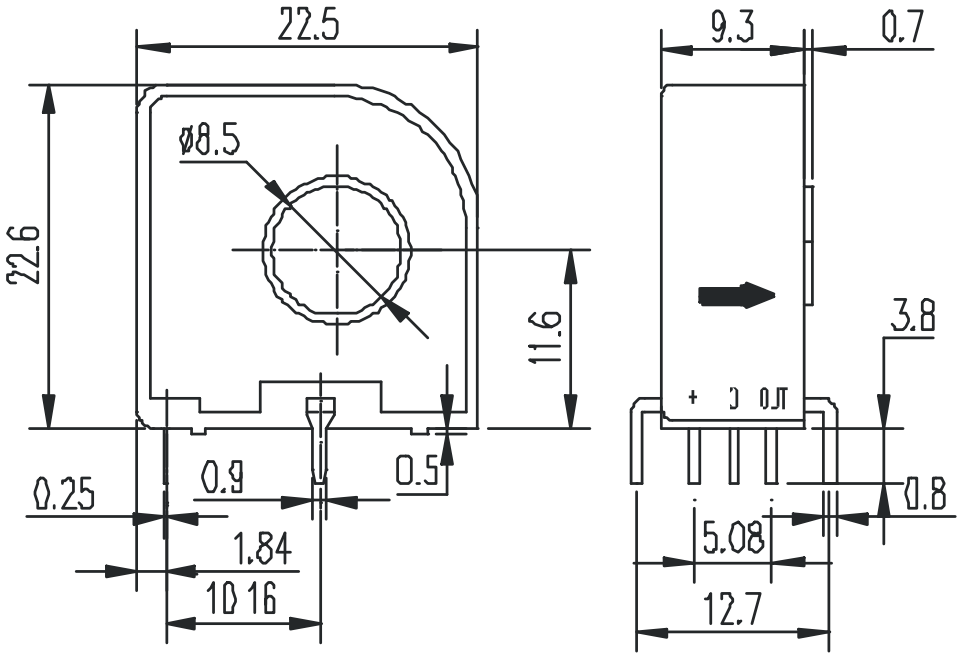
HBC-DPS5 Series Hall Effect Current Sensor

HBC-DPS5 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC10DPS5	HBC15DPS5	HBC20DPS5	HBC25DPS5	
Rated input current	10	15	20	25	A
Test current range	10	15	20	25	A
Turns ratio	1000	1200	2000	2000	T
Rated output voltage	2±0.5%	2±0.5%	2±0.5%	2±0.5%	V
Supply voltage	+5±5%				V
Offset voltage	2.5±0.5%				V
Offset voltage Drift	-10～+85℃ ≤±0.5				mV/℃
	-40～-10℃ ≤±0.75				mV/℃
Linearity	≤0.2				%FS
Class	±0.7				%
di/dt	＞50				A/μS
Response time	＜500				nS
Bandwidth(-1db)	(-1db) DC～200				KHZ
Insulation voltage	2.5KV,50HZ,1min				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



The tolerance: +/-0.2mm

SHAANXI SHINHOM ENTERPRISE CO.,LTD

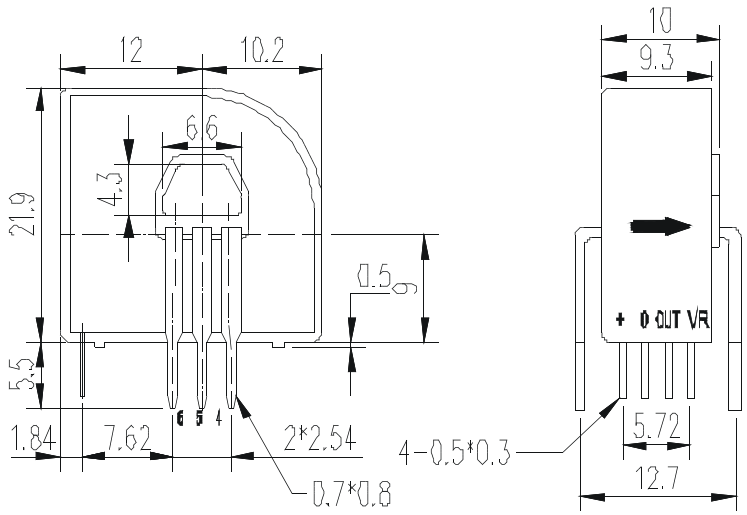
HBC-DS5 Series Hall Effect Current Sensor

HBC-DS5 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

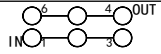
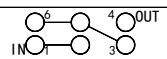
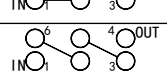
ELECTRICAL DATA

	HBC06DS5	HBC15DS5	HBC25DS5	HBC50DS5	
Rated input current	6	15	25	50	A
Test current range	19.2	48	80	120	A
Turns ratio	960	1200	2000	2000	T
Rated output voltage	0.625±0.5%	0.625±0.5%	0.625±0.5%	0.625±0.5%	V
Supply voltage	+5±5%				V
Offset voltage	2.5±0.5%				V
Offset voltage Drift	≤±0.5@-40～+85℃				mV/℃
Linearity	≤±0.2				%FS
Class	≤±0.7				%
di/dt	＞50				A/μS
Response time	＜500				nS
Bandwidth(-1db)	DC...200				KHZ
Insulation voltage	50HZ,1min,2.5				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(A)	Rated output voltage(V)	Pri DCR[mΩ]	Pri inductance [uH]	Terminal
1	±6(±15，±25，±50)	2.5±0.625	0.18	0.013	
2	±3(±7.5,±12.5,±25)	2.5±0.625	0.81	0.05	
3	±2(±5,±8.3,±16.6)	2.5±0.625	1.62	0.12	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

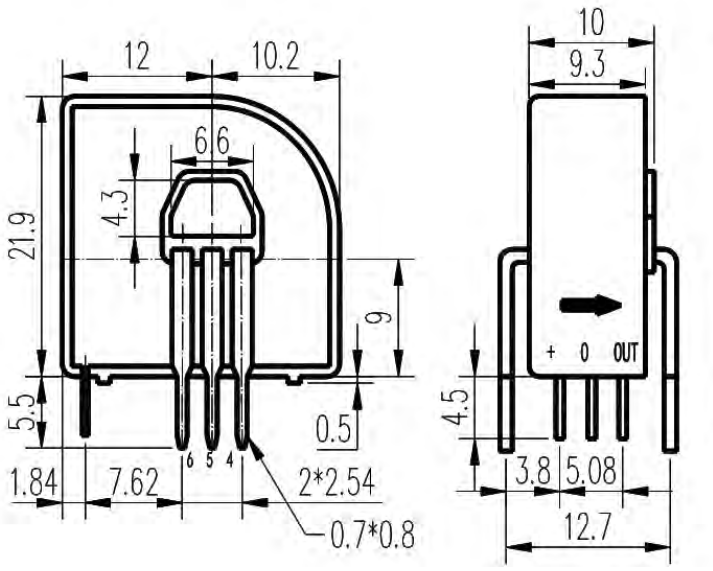
HBC-DSH5 Series Hall Effect Current Sensor

HBC-DSH5 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

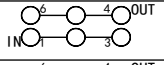
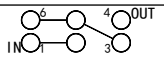
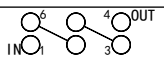
ELECTRICAL DATA

	HBC06DSH5	HBC15DSH5	HBC25DSH5	HBC50DSH5	HBC75DSH5	
Rated input current(Ipn)	6	15	25	50	75	A
Test current range(Ip)	±20	±51	±85	±150	±150	A
Turns ratio(Np/Ns)	1:960	1:960	1:992	1:1000	1:1000	T
Rated output voltage	±0.625±0.5%					V
Supply voltage	+5±5%					V
Dissipative current	15+ Ip *(Np/Ns)					mA
Offset voltage	2.5±0.4%					V
Offset voltage Drift	≤±0.1					mV/℃
Output voltage Drift	≤±0.05					mV/℃
Linearity	≤±0.2(Ip=0-±Ipn)					%FS
Class	≤±1.0					%
di/dt	＞100					A/μS
Response time	≤1(100A/μS, 10%～90%)					μS
Bandwidth(-3db)	DC～100					KHZ
Insulation voltage	2.5(50/60HZ,1min)					KV
Operating Temperature	-40～+85					℃
Storage Temperature	-40～+105					℃
GW	10					g

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(A)	Rated output voltage(V)	Pri DCR[mΩ]	Pri inductance [uH]	Terminal
1	±6(±15，±25，±50)	2.5±0.625	0.18	0.013	
2	±3(±7.5,±12.5,±25)	2.5±0.625	0.81	0.05	
3	±2(±5,±8.3,±16.67)	2.5±0.625	1.62	0.12	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:sales@shinhom.com.cn

SHAANXI SHINHOM ENTERPRISE CO.,LTD

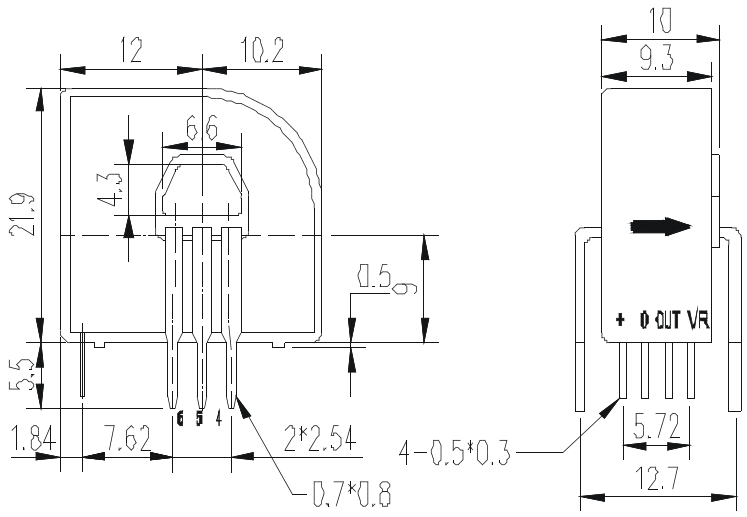
HBC-DSR5 Series Hall Effect Current Sensor

HBC-DSR5 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

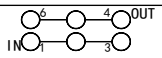
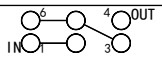
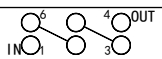
ELECTRICAL DATA

	HBC06DSR5	HBC15DSR5	HBC25DSR5	HBC40DSR5	
Rated input current	6	15	25	40	A
Test current range	19.2	48	80	120	A
Turns ratio	960	1200	2000	2000	T
Rated output voltage	0.625±0.5%	0.625±0.5%	0.625±0.5%	0.625±0.5%	V
Supply voltage	+5±5%				V
Offset voltage	2.5±0.5%				V
Reference voltage（VR）	2.5±0.75%				V
Offset voltage Drift	≤±0.5@-40～+85℃				mV/℃
Linearity	≤±0.2				%FS
Class	≤±0.7				%
di/dt	＞50				A/μS
Response time	＜500				nS
Bandwidth(-1db)	DC～200				KHZ
Insulation voltage	50HZ,1min,2.5				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(A)	Rated output voltage(V)	Pri DCR[mΩ]	Pri inductance [uH]	Terminal
1	±6(±15，±25，±50)	2.5±0.625	0.18	0.013	
2	±3(±7.5,±12.5,±25)	2.5±0.625	0.81	0.05	
3	±2(±5,±8.3,±16.6)	2.5±0.625	1.62	0.12	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

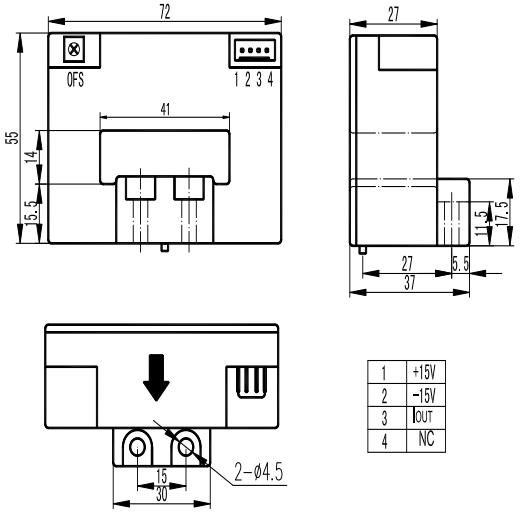
HBC-F Series Hall Effect Current Sensor

The HBC-F series current sensor is a closed loop device based on the principle of the Hall Effect and null balance method. The output from the current sensor is the balancing current which is a perfect image of the primary current reduced by the number of secondary turns at any time. This current can be expressed as a voltage by passing it through a resister. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC-200F	HBC-300F	HBC-400F	HBC-500F	
Rated current	200	300	400	500	A
Measure range	800(±24V,30Ω)	1200（±24V,25Ω)	1600(±24V,20Ω)	2000(±24V,15Ω)	A
Turn	1：2000	1：3000	1：4000	1：5000	
Rated output	100	100	100	100	mA
Secondary coil resister	25	30	35	42	Ω
Measuring resistance				10～80	Ω
Offset current				＜0.2	mA
Supply voltage				±15～±24	V
Offset drift	-40～+85℃			±0.6	mA
Linearity				±0.1	%FS
Band width	-1db			0～150	KHz
Response time				≤1	μS
Galvanic isolation	50Hz,1min			6.0	KV
Operating temperature				-40～+85	℃
Storage temperature				-40～+125	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



DIRECTIONS FOR USE

1. When the current will be measured goes through a sensor, the current will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users' requirements.

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ELECTRONICS ENTERPRISE CO.,LTD

HBC-DSR5 Hall-effect Current Sensor Series

HBC50DS5 series is a new generation of current sensor based on the principle of Hall-effect. It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input。

Advantages

1. excellent precision ,good linearity, better anti-jamming capability
2. easy to installation
3. low temperature drift, quick response time, broad frequency band width
4. PCB installation
5. good over-current capability, competitive quality /price rate

Typical applications

1. alternating current variable-speed generator tracking
2. electric welding equipment for the control of the welding current
3. DC generator static electricity commutation
4. UPS, SMPS

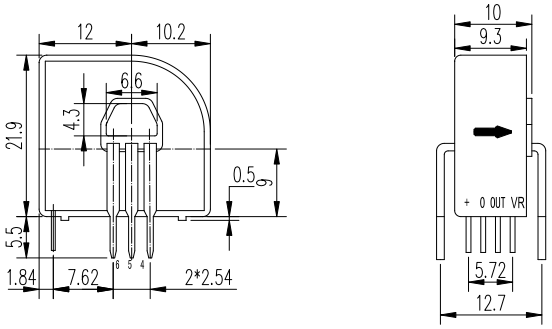
Usage declaration

when IP flows from terminal1，2，3 to terminal 6，5，4, Vout is forward direction . For 50A primary current , customers had better use thick wire through the magnetic core hole to measure.

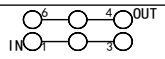
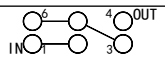
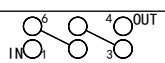
Electrical characteristics

	HBC06DSR5	HBC15DSR5	HBC25DSR5	HBC40DSR5	
Rated input current	6	15	25	40	A
Measuring primary current range	19.2	48	80	120	A
Turns	960	1200	2000	2000	T
Rated output voltage	0.625±0.5%	0.625±0.5%	0.625±0.5%	0.625±0.5%	V
Supply voltage				+5±5%	V
Offset voltage				2.5±0.5%	V
Benchmark voltage（VR）				2.5±0.5%	V
Offset voltage temperature drift	-40～+85℃			≤±0.5	mV/℃
Linearity				≤0.1	%FS
Precision				±0.7	%
di/dt precision				＞50	A/uS
Response time				＜500	nS
Band width	(-1db)			DC～200	KHZ
Insulation voltage	50HZ,1min			2.5	KV
Operating temperature				-40～+85	℃
Storage temperature				-40～+125	℃

package outline(mm)



Connection diagram

Primary	Pri.rated current IPN[A]	Rated optput voltage VOUT[V]	Pri. RDC [mΩ]	Pri. L [uH]	connection
1	±6(±15，±25，±50)	2.5±0.625	0.18	0.013	
2	±3(±7.5,±12.5,25)	2.5±0.625	0.81	0.05	
3	±2(±5,±8.3,±16.6)	2.5±0.625	1.62	0.12	

Tel：029-87851838 Fax：029-87851840 Http://www.shinhom.com E-mail:

sales@shinhom.com.cn

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

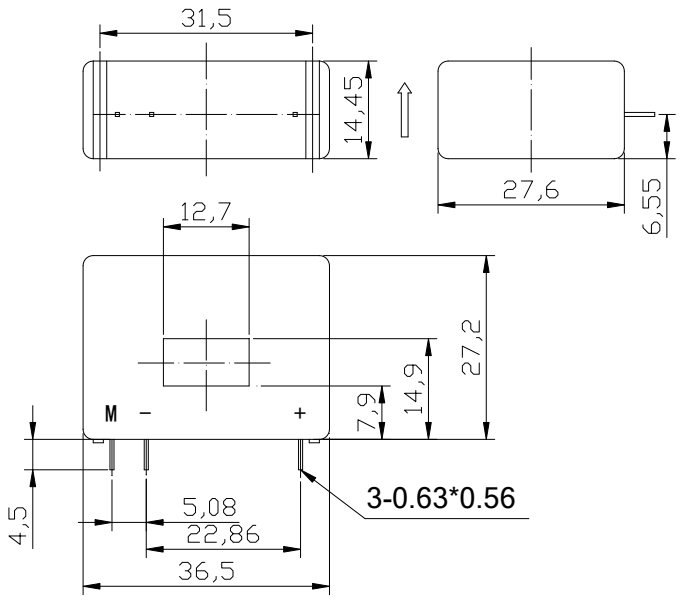
HBC-LA Series Hall Effect Current Sensor

HBC-LA Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

Item	HBC25LA	HBC50LA	HBC75LA	HBC100LA	
Rated input current	25	50	75	100	A
Test current range	0～±38	0～±75	0～±105	0～±150	A
Turns ratio	1:1000	1:1000	1:1500	1:2000	
Sec winding impedance	30	30	30	30	Ω
Rated output current	25±0.5%	50±0.5%			mA
Supply voltage	±15 DC ±5%				V
Offset current	≤±0.2		≤±0.15		mA
Offset current Drift	±0.1mA Type ±0.5mA Max		±0.1mA Type ±0.5mA Max		mA
Linearity			≤±0.2		%FS
Bandwidth（-3db）			0～200		KHz
Response time（100A/us）			≤1		us
Insulation voltage	3.0/50HZ,1min OR 60HZ,1min				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end.

(Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

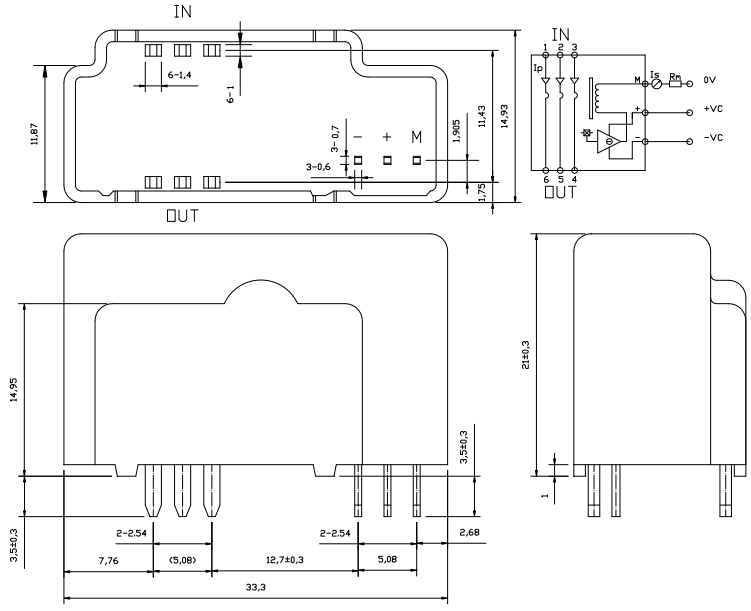
HBC-LAH Series Hall Effect Current Sensor

HBC-LAH Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA(25℃)

	HBC50LAH	HBC100LAH	
Rated input current(IP)	50	100	A
Test current range	90	160	A
Load impedance(@rated current) ±12V	20～100	0～63	Ω
±15V	22 ～163	20～120	Ω
Sec rated current	25±0.5%	50±0.5%	mA
Supply voltage	±12～±15±5%	±12～±15±5%	V
The supply consumes current statically 25℃	≤±12	≤±12	mA
Turns ratio	1:2000	1:2000	
Offset current Drift	≤±0.4	≤±0.3	mA
Current temperature drift -40℃～+85℃	≤±0.6	≤±0.5	mA
Response time	＜1.0	＜1.0	μs
Linearity	≤±0.2	≤±0.2	%FS
Insulation voltage 50(60)HZ,1min	2.5	2.5	KV
di/dt	＞50	＞50	A/μs
Bandwidth(-3dB)	DC…100	DC…100	KHz
Sec DCR@70℃	76	120	Ω
Operating Temperature	-40～+85	-40～+85	℃
Storage Temperature	-40～+105	-40～+105	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage availabl

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

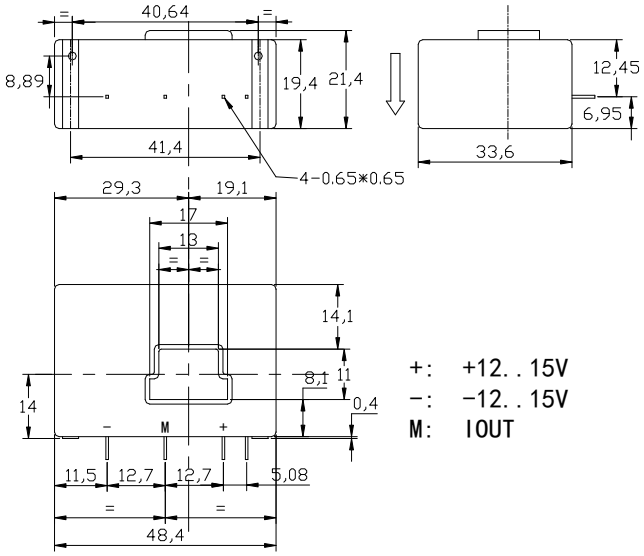
HBC-LAP Series Hall Effect Current Sensor

The HBC-LAP series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC100LAP	HBC125LAP	HBC200LAP	
Rated Current(IPN)	100	125	200	A
Measure Range(IP)	0～±200	0～±200	0～±300	A
Rated Output Current(ISN)	100±0.5%	125±0.5%	100±0.5%	mA
Supply Voltage(±5%)	±12～±15			V
Supply current loss	16(@±15V)+IS			mA
Test resistance	with±12V @±IPNmax	14(min) 52(max)	0(min) 26(max)	Ω
	@±IPmax	14(min) 17(max)	0(min) 4(max)	Ω
	with±15V @±IPNmax	40(min) 72(max)	0(min) 56(max)	Ω
	@±IPmax	40(min) 40(max)	0(min) 8(max)	Ω
Turns ratio	1:1000	1:1000	1:2000	
Sec resistance	33	33	76	Ω
Offset current	≤±0.2			mA
Offset current Drift	≤±0.5			mA
Response Time	＜1			μs
Linearity	≤±0.2			%FS
Insulation voltage	50(60)HZ,1min,3			KV
di/dt	＞100			A/μs
Bandwidth(-3dB)	DC…100			KHz
Operating Temperature	-40～+85			℃
Storage Temperature	-40～+105			℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

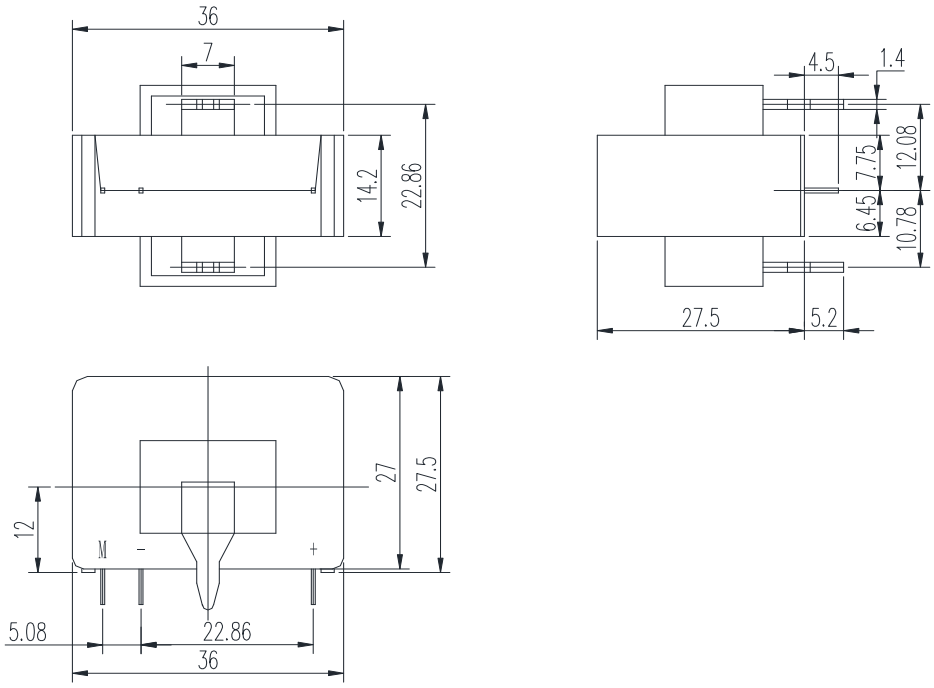
HBC-LA-T Series Hall Effect Current Sensor

HBC-LA-T Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA(25℃)

Item	HBC25LA-T	HBC50LA-T	HBC75LA-T	HBC100LA-T	
Rated input current	25	50	75	100	A
Test current range	0～±38	0～±75	0～±105	0～±150	A
Turns ratio	1:1000	1:1000	1:1500	1:2000	
Sec winding impedance	35	35	70	100	Ω
Rated output current	25±0.5%	50±0.5%			mA
Supply voltage	±15 DC ±5%				V
Offset current	±0.2		±0.15		mA
Offset current drift	±0.1mA Type ±0.25mA Max		≤±0.005		mA/℃
Linearity			≤0.15		%FS
Bandwidth(-3db)			0～200		KHz
di/dt	100				A/us
Response time	≤1				us
Insulation voltage	3.0/50HZ,1min OR 60HZ,1min				KV
Operating Temperature	-25～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

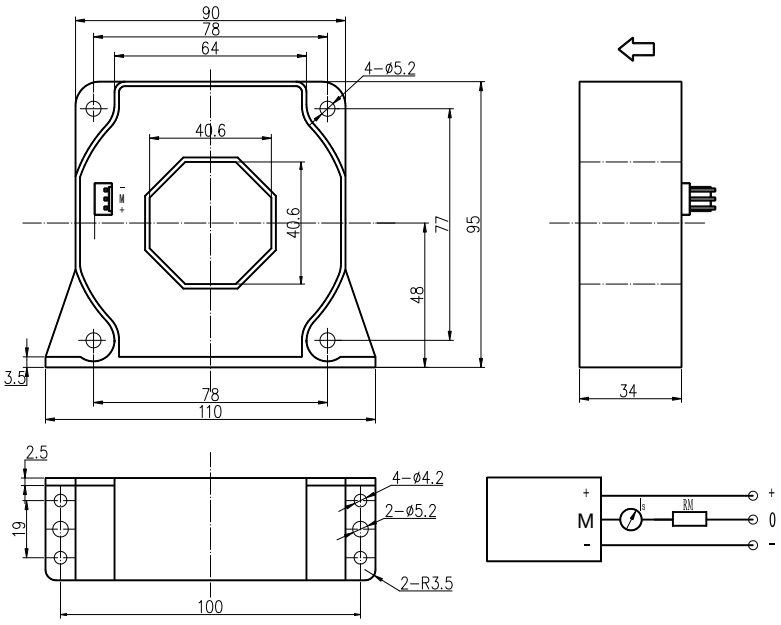
HBC-LF Series Hall Effect Current Sensor

HBC-LF Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC500LF	HBC600LF	HBC800LF	HBC1000LF	
Rated input current	500	600	800	1000	A
Test current range	1000	1000	2000	2000	A
Rated output current	100	120	160	200	mA
Supply voltage	±15～±24				V
Zero offset current	≤±0.5		≤±1.0		mA
Turns ratio	1:5000				
Response time	＜1				μs
Linearity	≤±0.2				%FS
Insulation voltage	50HZ,1min,3				KV
di/dt	＞100				A/μs
Bandwidth(-1dB)	DC…150				KHz
Sec winding resistance	44				Ω
Test resistance	(±15V ， 1000A),0～22.5				Ω
	(±24V，1000A),0～65				
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

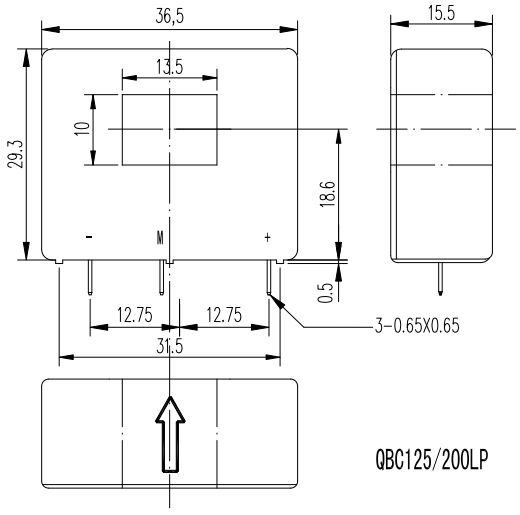
HBC-LP Series Hall Effect Current Sensor

The HBC-LP series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

		HBC125LP	HBC200LP	
Rated Current(IPN)		125	200	A
Measure Range(IP)		250(±18V， 15Ω)	400(±18V， 12(	A
Rated Output Current(ISN)		125±0.5%	100±0.5%	mA
Supply Voltage		±12～±18	±12～±18	V
Test Resistance	with±12V @±200Amax	14(min) 30(max)	0(min) 75(max)	Ω
	@±250Amax	14(min) 20(max)	0(min) 50(max)	Ω
	with±15V @±200Amax	25(min) 47(max)	10(min) 100(max)	Ω
	@±300Amax	10(min) 22(max)	10(min) 56(max)	Ω
Turns ratio		1:1000	1:2000	
Sec resistance		30	45	Ω
Offset current			±0.2	mA
Offset current Drift	-40℃～85℃		±0.5	mA
Response Time			＜1	μs
Linearity			≤0.2	%FS
Insulation voltage	50(60)HZ,1min		3	KV
di/dt			＞100	A/μs
Bandwidth(-3dB)			DC…100	KHz
Operating Temperature			-40～+85	℃
Storage Temperature			-40～+105	℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

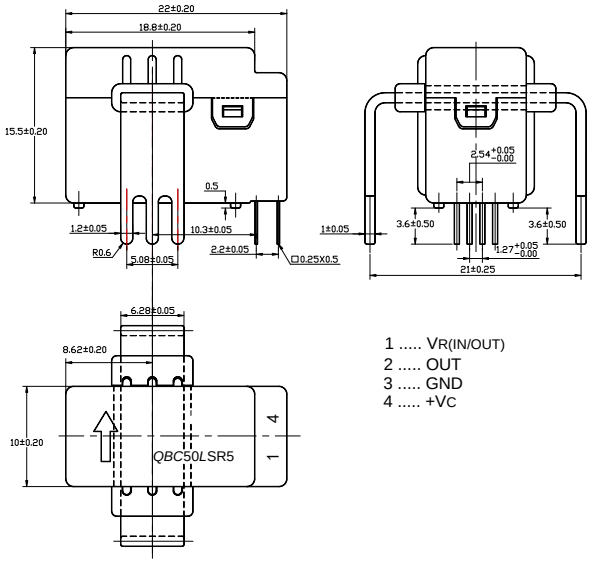
HBC-LSR5 Series Hall Effect Current Sensor

HBC-LSR5 Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA(25℃)

	HBC06 LSR5	HBC10 LSR5	HBC15 LSR5	HBC20 LSR5	HBC25 LSR5	HBC30 LSR5	HBC40 LSR5	HBC50 LSR5	
Rated input current(IP)	6	10	15	20	25	30	40	50	A
Test current range	±15	±25	±37.5	±50	±62.5	±75	±100	±105	A
Turns ratio(Np/Ns)	1:1200	1:1000	1:1125	1:1000	1:1250	1:1125	1:1000	1:1000	T
Rated output voltage	±0.8±0.5%								V
Supply voltage	+5±5%								V
Offset voltage	2.5±0.5%								V
Reference voltage（VR）	2.5±0.8%								V
External reference voltage	2.0-2.8								V
Offset voltage Drift	≤±0.1								mV/℃
Output voltage Drift	≤±0.05								mV/℃
Linearity(Ip=0-±Ipn)	≤±0.2								%FS
Class	≤±1.0								%
di/dt	＞50								A/μS
Response time	≤1								μS
Bandwidth(-1db)	DC～100								KHZ
Insulation voltage	2.5@(50HZ,1min)								KV
Operating Temperature	-40～+85								℃
Storage Temperature	-40～+105								℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



1 ..... VR(IN/OUT)
2 ..... OUT
3 ..... GND
4 ..... +Vc

INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

HBC-LTA Hall-effect Current Sensor Series

HBC-LTA series is a new generation of closed loop current sensor based on the principle Of Hall-effect. It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input.

Electrical characteristics

	Type	HBC-050LTA	HBC-100LTA	HBC-200LTA	HBC-300LT	
I_{PN}	Primary nominal input current	50	100	200	300	A
I_P	Measuring primary current range	0～±150	0～±300	0～±600	0～±900	A
I_{SN}	Nominal output current	25	50	100	150	mA
K_N	Turns ratio	1：2000				
V_C	Supply voltage	±12～±18（±5%）				V
I_C	Current loss	V_C=±15V	20+Is			mA
V_d	Insulation voltage	6KV AC/50Hz/1min				

Dynamic characteristics

ε_L	Linearity	<0.1	%FS
X	Precision	T_A =25℃ V_C=±15V ±0.7	%
I_0	Offset current	T_A =25℃ <±0.20	mA
I_{OM}	Residual current	I_P→0 <±0.20	mA
I_{OT}	Offset current temperature drift	I_P=0 T_A =-25～+85℃ ±0.10～±0.65	mA/℃
T_R	Response time	<1	μs
f	Band width（-3dB）	DC~100	KHz

Generic characteristics

T_A	Operation temperature	-40～+85				℃
T_S	Storage temperature	–40～+125				℃
R_S	Secondary internal resistance T_A =25℃	29	25	21	32	Ω
	Standard					

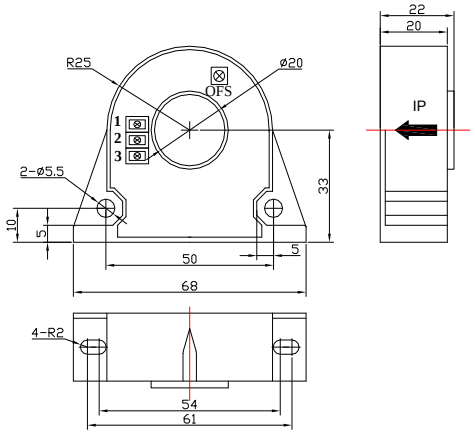
Advantages

- excellent precision ,good linearity
- better anti-jamming capability
- low temperature drift, quick response time
- broad frequency band width
- good over-current capability

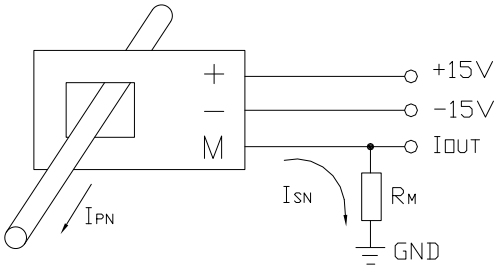
Typical applications

- alternating current variable-speed generator tracking
- welding equipment source
- DC generator static electricity commutation
- communication source 、battery source
- UPS, switching power supplies

package outline（*mm*）



circuit connection diagram



Elucidation：

1：+15V 2：－15V

3：Iout OFS：zero adjustment

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

SHAANXI SHINHOM ENTERPRISE CO.,LTD

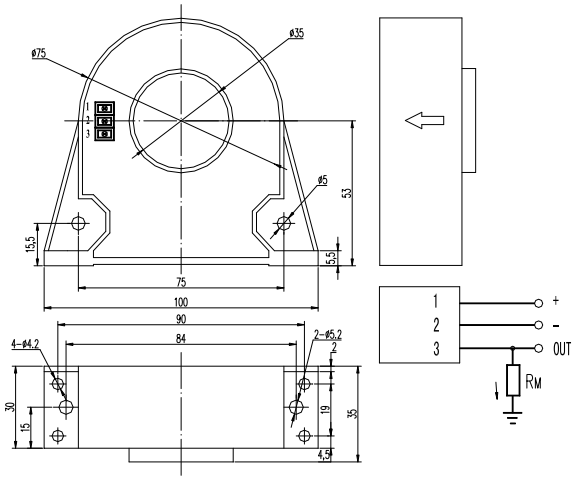
HBC-LTB Series Hall Effect Current Sensor

HBC-LTB Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

		HBC300LTB	HBC500LTB	
Rated input current		300	500	A
Test current range		600（±18V，51Ω）	1000（±18V，39Ω）	A
Test resistance	with±15V	@±300Amax 110(max)	@±500Amax 100(max)	Ω
		@±600Amax 36(max)	@±1000Amax 25(max)	Ω
	with±18V	@±300Amax 130(max)	@±500Amax 120(max)	Ω
		@±600Amax 51(max)	@±1000Amax 39(max)	Ω
Turns ratio		1:3000	1:5000	
Rated output current		100		mA
Supply voltage		±15～±24		V
Zero offset current		≤±0.2		mA
Offset current Drift		≤±0.5		mA
Response time		＜1		μs
Linearity		≤±0.2		%FS
Insulation voltage		50HZ,1min,6		KV
di/dt		＞100		A/μs
Bandwidth(-3dB)		DC…100		KHz
Sec winding resistance		31	45	Ω
Operating Temperature		-40～+85		℃
Storage Temperature		-40～+105		℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

HBC-LTB Hall-effect Current Sensor Series

HBC-LTB series is a new generation of current sensor based on the principle of Hall-effect .It can be used for detecting DC、 pulse and various irregular waveform current under electrical isolation between output and input.

Electrical characteristics

	Type	HBC-100LTB	HBC-300LTB	HBC-500LTB	HBC-800LTB	HBC-1000LTB	
I_{PN}	Primary nominal input current	100	300	500	800	1000	A
I_P	Measuring primary current range	300	900	1200	1500	1500	A
V_{SN}	Nominal output voltage	4±1%					V
V_C	Supply voltage	±12~±15（±5%）					V
I_C	Current loss	V_C=±15V ≤25					mA
V_d	Insulation voltage	2.5KV AC/50Hz/1min					

Dynamic characteristics

ε_L	Linearity	(0~± I_{PN}) ±1	%FS
V_0	Offset voltage	T_A =25℃ ±10	mV
V_{OM}	Residual voltage	I_P→0 ±10	mV
V_{OT}	Offset voltage temperature drift	I_P=0 T_A=–25~ +85℃ ±0.75	mV/℃
T_R	Response time	≤3	μs
f	Band width（-3dB）	DC~20	KHz

Generic characteristics

T_A	Operation temperature	-25~+85	℃
T_S	Storage temperature	–40 ~+105	℃

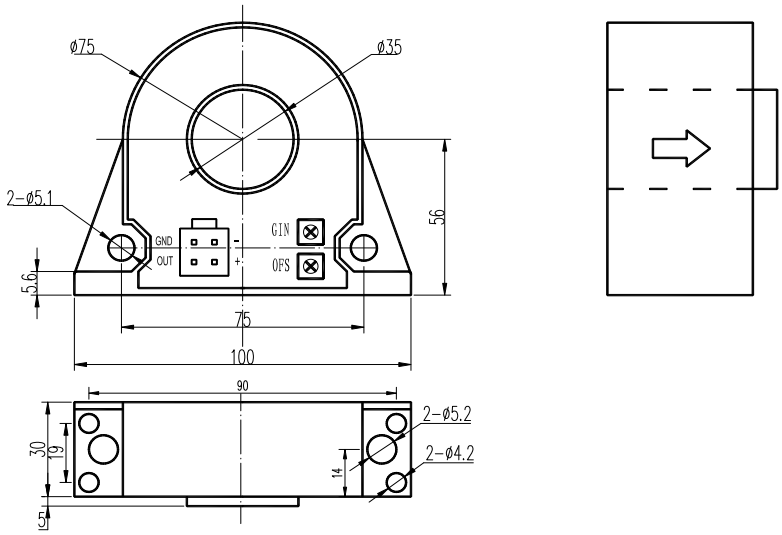
Advantages

- ◆ insulation between input and output
- ◆ competitive quality /price rate
- ◆ no insertion loss
- ◆ easy to installation
- ◆ small size, light heavy

Typical applications

- ◆ welding machine
- ◆ electric welding equipment for the control of the welding current
- ◆ frequency conversion timing system

package outline（mm）



OFS： zero adjustment GIN：gain adjustment

SHAANXI SHINHOM ENTERPRISE CO.,LTD

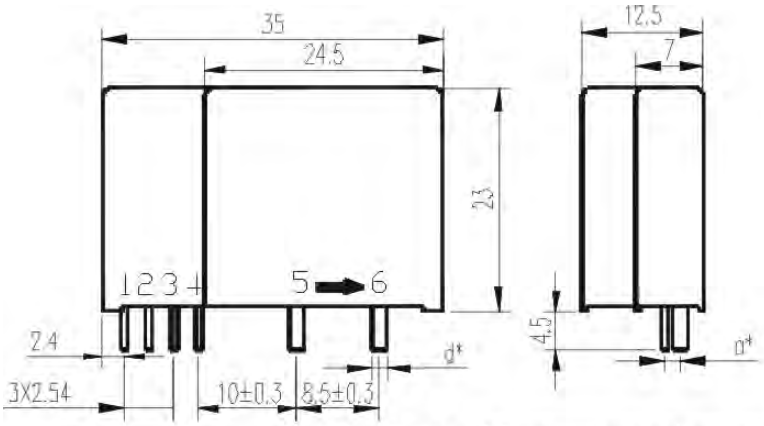
HBC-LX Series Hall Effect Current Sensor

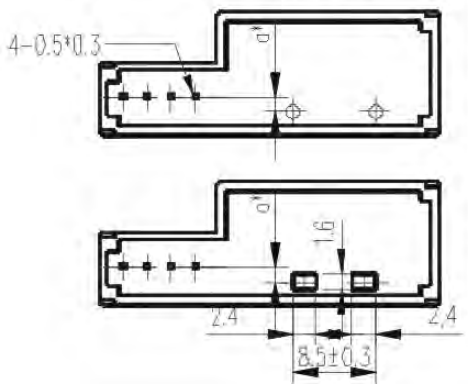
HBC-LX Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC-05LX		HBC-10LX		HBC-15LX		HBC-20LX		
	HBC-25LX		HBC-30LX		HBC-50LX		HBC-75LX		
Rated input current	5	10	15	20	25	30	50	75	A
Test current range	10	20	30	40	50	60	100	150	A
Turns ratio	4：1000	3：150	2：150	2：200	1：1250	1：150	1：250	1：375	
Rated output voltage	4±0.5%								V
Supply voltage	±15±5%								V
Zero offset current	≤±0.04								V
Consumption current	≤±18±20								mA
Linearity	≤±0.2								%FS
Response time	＜1								μs
Output Thermal drift	＜±0.02								%/℃
Zero Thermal drift	≤±1								mV/℃
Insulation voltage	50(60)HZ,1min, 2.5								KV
insulating strength	＞1000								MΩ
Operating temperature	-40～+85								℃
Storage temperature	-40～+105								℃

DIMENSIONS





Type	a(mm)	d(mm)
HBC05LX	1.3	Φ0.8
HBC10LX	1.4	Φ1.0
HBC15LX	1.6	Φ1.0
HBC20LX	1.6	Φ1.2
HBC25LX	1.7	Φ1.6
HBC30LX	1.7	Φ1.6
HBC50LX	1.7	1.6*2.4
HBC75LC	1.7	1.6*2.4

Pins	Define
1	+15V
2	-15V
3	OUT
4	0V
5	+IN
6	-IN

DIRECTIONS FOR USE

1. When current go through the sensor, its value can be measured at output end. (Note: wrong wire connection can cause sensor breakdown)

2.Different rated input & output current sensors can be customized according to customer's requirements.

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com

--------SHAANXI SHINHOM ENTERPRISE CO.,LTD----------

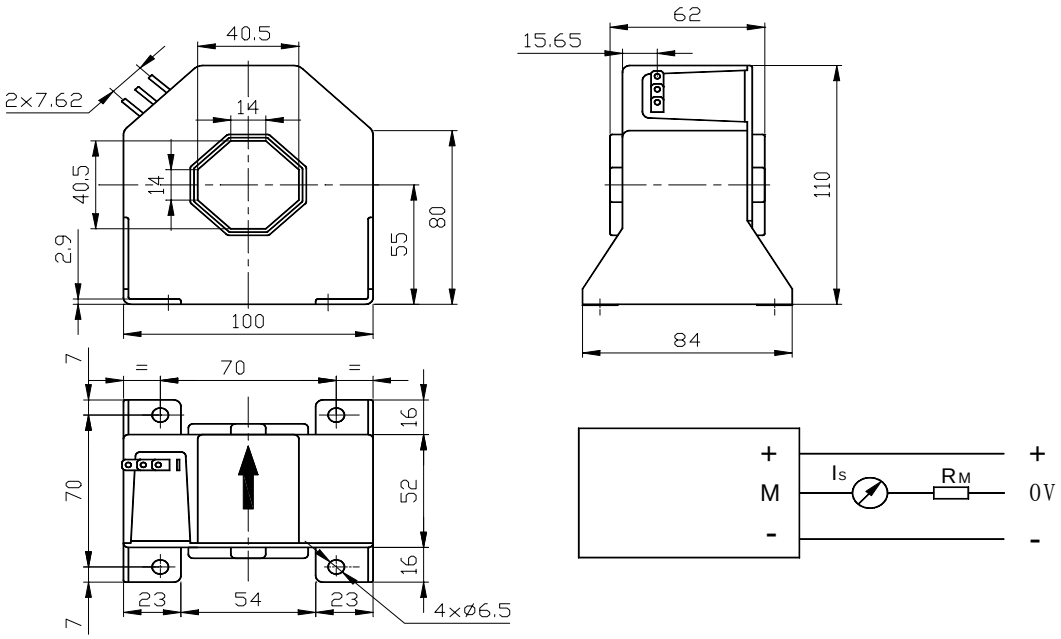
HBC-S Series Hall Effect Current Sensor

HBC-S Series Hall Effect Current Sensor is insulation with Pri and Sec,Can be used to measure DC, AC pulse currents。

ELECTRICAL CHARACTERISTICS:@25℃

			HBC1000S	
Rated input current			1000	A
Test current range			2000	A
Test DCR	with±15V @±1000Amax		0(min) 30(max)	Ω
	@±1200Amax		0(min) 20(max)	Ω
	with±24V @±1000Amax		0(min) 75(max)	Ω
	@±2000Amax		0(min) 15(max)	Ω
Turns ratio			1:5000	Ω
Rated output current			200±0.5%	mA
power supply voltage			±15～±24	V
Offset current			±0.2	mA
Offset current drift	-40℃～85℃		±0.5	mA
Response time			＜1	μs
Linearity			≤0.1	%FS
Insulation voltage	50HZ,1min		6	KV
di/dt			＞100	A/μs
Band width (-3dB)			DC…150	KHz
Sec coil resistance			42	Ω
Operating temperature			-40～+85	℃
Storage temperature			-40～+125	℃

PHYSICAL CHARACTERISTICS



SHAANXI SHINHOM ENTERPRISE Co.,Ltd http://www.shinhom.com FAX:029-87851840
TEL:029-87851838

SHAANXI SHINHOM ENTERPRISE CO.,LTD

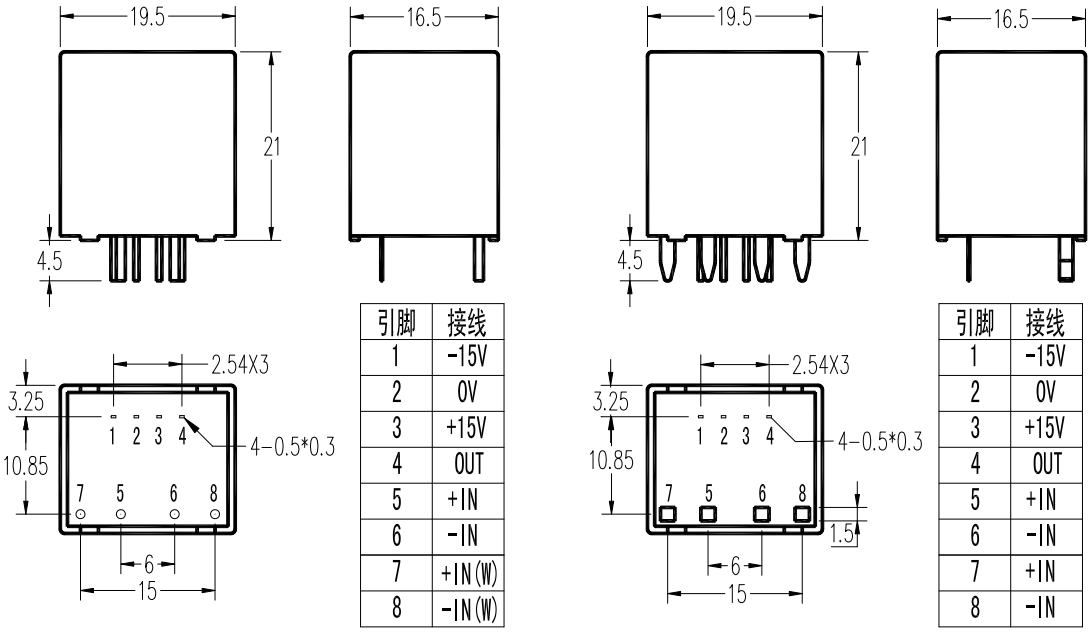
HBC-SY/SYW Series Hall Effect Current Sensor

HBCSY/SYW Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC05SY/SYW		HBC10SY/SYW		HBC12.5SY/SYW		HBC15SY/SYW		
	HBC20SY/SYW		HBC25SY/SYW		HBC30SY/SYW		HBC50SY		
Rated input current	5	10	12.5	15	20	25	30	50	A
Test current range	10	20	25	30	40	50	60	100	A
Input pins	ø 0.6	ø 0.8	ø 1.0	ø 1.0	ø 1.2	ø 1.6	ø 1.6	2×□1.6×1.5	mm
Turns ratio	8：1000	4：1000	3：1000	3：1125	2：1000	2：1250	1：1000	1：1250	
Rated output voltage	±4±0.5%								V
Supply voltage	±15±5%								V
consumption current	≤±15								mA
Zero offset current	≤±20								mV
Offset voltage Drift	≤±0.5								mV/℃
Linearity	≤±0.2								%FS
Response time	＜1								μS
Insulation voltage	50HZ,1min,2.5								KV
Operating Temperature	-40～+85								℃
Storage Temperature	-40～+105								℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



引脚	接线
1	-15V
2	0V
3	+15V
4	OUT
5	+IN
6	-IN
7	+IN(W)
8	-IN(W)

引脚	接线
1	-15V
2	0V
3	+15V
4	OUT
5	+IN
6	-IN
7	+IN
8	-IN

INSTRUCTIONS FOR USE

1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

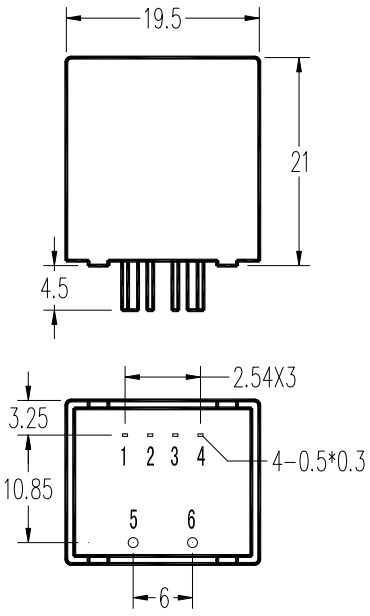
HBC-SY12MJ Series Hall Effect Current Sensor

HBC-SY12MJ Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA(25℃)

	HBC03SY12MJ	HBC05SY12MJ	HBC10SY12MJ	HBC20SY12MJ	HBC25SY12MJ	
Rated input current(IP)	3	5	10	20	25	A
Test current range	9	15	30	60	75	A
Input pins size	ø 0.65	ø 0.8	ø 1.0	ø 1.2	ø 1.4	mm
Turns ratio	4：1200	2：1000	1：1000	1：1333	1：1500	
Rated output voltage	0.625±0.5%					V
Supply voltage	12±5%					V
Static power consumption current	≤15					mA
Zero current Offset	2.5V±20					mV
Offset voltage Drift	≤±1.0					mV/℃
Linearity	≤±0.5					%FS
Response time	＜1					μS
Insulation voltage(50HZ,1min)	2.5					KV
Operating Temperature	-20～+85					℃
Storage Temperature	-40～+105					℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



引脚	接线
1	0V
2	0V
3	+12V
4	OUT
5	+IN
6	-IN

INSTRUCTIONS FOR USE

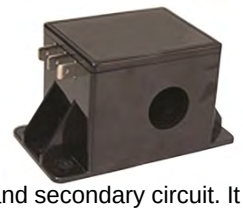
1.When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).

2. The output amplitude of the sensor can be adjusted according to users requirements.

3. Custom design in the nominal input current and the output voltage available

Http://www.shinhom.com Fax: 029-87851840 Tel:029-87851838 E-mail:shinhom@globalsources.com

SHAAN XI SHINHOM ENTERPRISE CO.,LTD



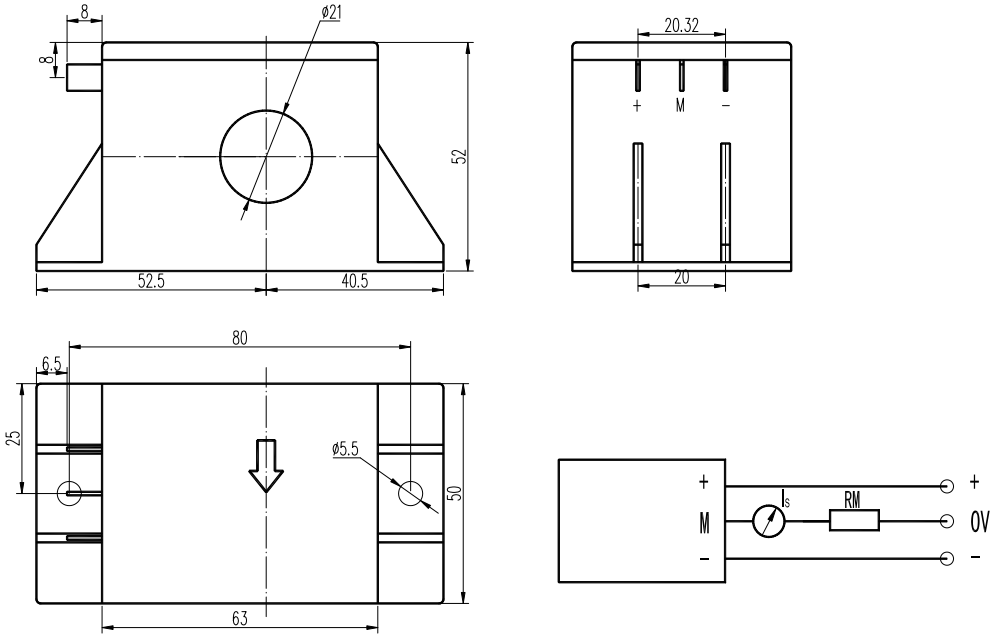
HBC-US Series Hall Effect Current Sensor

HBC-US Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC100US	HBC200US	HBC300US	HBC400US	HBC500US	
Rated input current	100	200	300	400	500	A
Measure current range	200	500	500	600	600	A
Turns ratio	1:2000	1:2000	1:2000	1:2000	1:2500	
Rated output current	100	100	150	200	200	mA
Supply voltage					±12～±18	V
Zero offset current					±0.5	mA
Thermal drift of offset current	-40℃～85℃				±0.5	mA
Response time					＜1	μs
Linearity					≤0.1	%FS
Insulation voltage	50HZ,1min				6	KV
di/dt					＞200	A/μs
Band width(-3dB)					DC…150	KHz
Sec coil resistance	30	30	30	16	20	Ω
Operating temperature					-40～+85	℃
Storage temperature					-40～+125	℃

DIMENSIONS



DIRECTIONS FOR USE

1. When current go through the sensor, its value can be measured at output end. (Note: wrong wire connection can cause sensor breakdown)
2.Different rated input & output current sensors can be customized according to customer's requirements.

Tel：029-87850838 Fax：029-87851840 Http：//www.shinhom.com E-

mail：shinhom@globalsources.com

SHINHOM

SHAANXI SHINHOM ENTERPRISE CO.,LTD

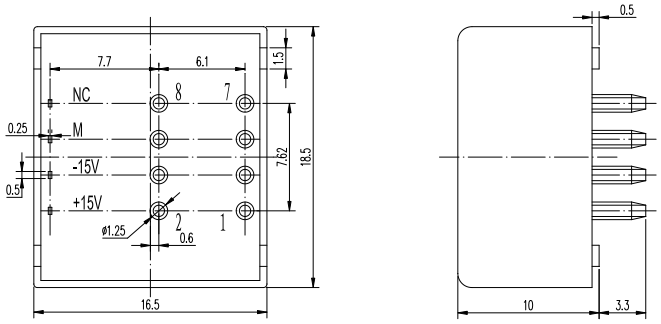
HBC-X Series Hall Effect Current Sensor

HBC-X Series current sensor with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

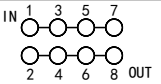
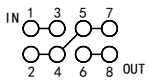
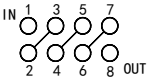
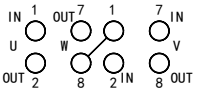
ELECTRICAL DATA

	HBC10XA	HBC20XA	HBC30XA	HBC50XA	
Rated input current	10	20	30	50	A
Test current range	20	40	60	100	A
Turns ratio	1000	1000	1500	2500	T
Sec winding resistance	60	60	100	150	Ω
Rated output current	10±0.5%	20±0.5%	20±0.5%	20±0.5%	mA
Supply voltage	±15±5%				V
Offset current	≤±0.25				mA
Offset current Drift	-40～+85℃ ≤±0.5				mA
Linearity	≤±0.2				%FS
Class	≤±0.7				%
di/dt	＞50				A/μS
Response time	＜1				μS
Bandwidth	DC～200				KHZ
Insulation voltage	2.5				KV
Operating Temperature	-40～+85				℃
Storage Temperature	-40～+105				℃

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Turns ratio	Rated input current IPN[A]	Rated output voltage VOUT[V]	Pri DCR[mΩ]	Pri inductance [uH]	Terminal
Single phase	1	±10(±20，±30,±50)	2.5±0.625	0.05	0.025	
	2	±5(±10，±15,±25)	2.5±0.625	0.20	0.1	
	4	±2.5(±5，±7.5, ±12.5)	2.5±0.625	1.00	0.4	
three-phase	1	±10(±20，±30)	2.5±0.625	0.05	0.025	

Http://www.shinhom.com Fax: 029-87851840 Tel: 029-87851838 E-mail:shinhom@globalsources.com