



SHAANXI SHINHOM ENTERPRISE CO.,LTD

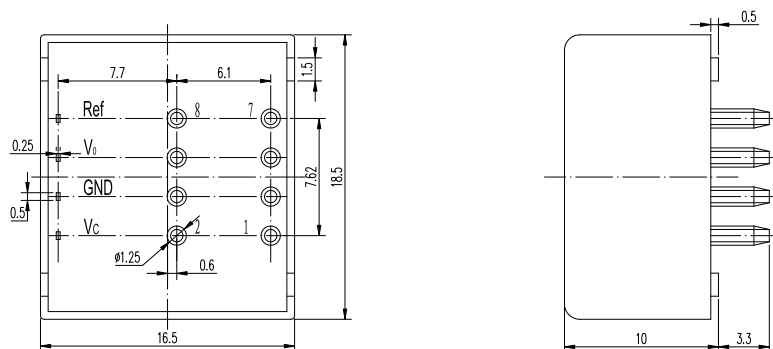
HBC-XS5 Series Hall Effect Current Sensor

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 $\pm$ 0.5%				V
Supply voltage	+5 $\pm$ 5%				V
Reference voltage (VR)	2.5 $\pm$ 0.5%				V
Offset voltage Drift -40 $\sim$ +85 $^{\circ}$ C	$\leq$ $\pm$ 0.5				mV $^{\circ}$ C
Linearity	$\leq$ $\pm$ 0.2				%FS
Class	$\leq$ $\pm$ 0.7				%
di/dt	> 50				A/ μ S
Response time	<1				μ S
Bandwidth	DC $\sim$ 200				KHZ
Insulation voltage	1.5				KV
Operating Temperature	-40 $\sim$ +85				$^{\circ}$ C
Storage Temperature	-40 $\sim$ +105				$^{\circ}$ C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

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



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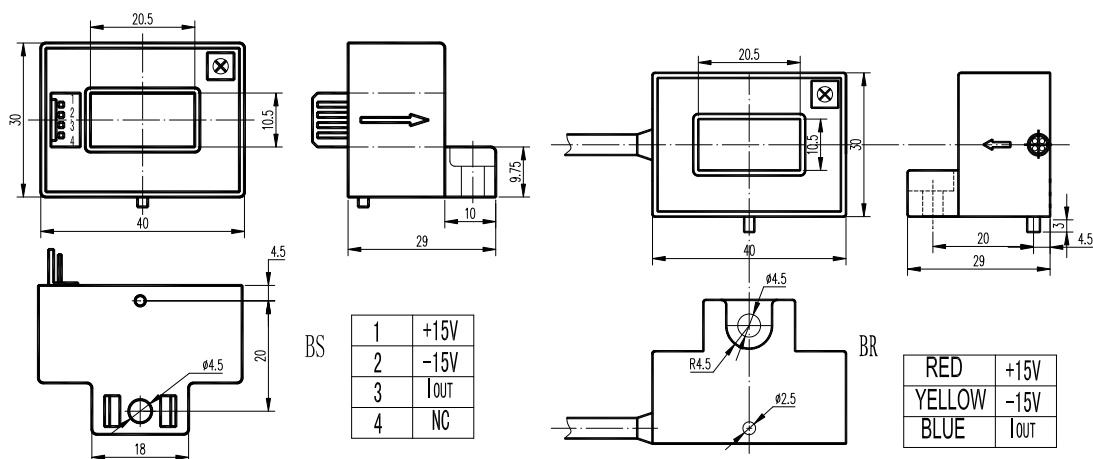
HBC-B Series Hall Effect Current Sensor

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 resistor. 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.

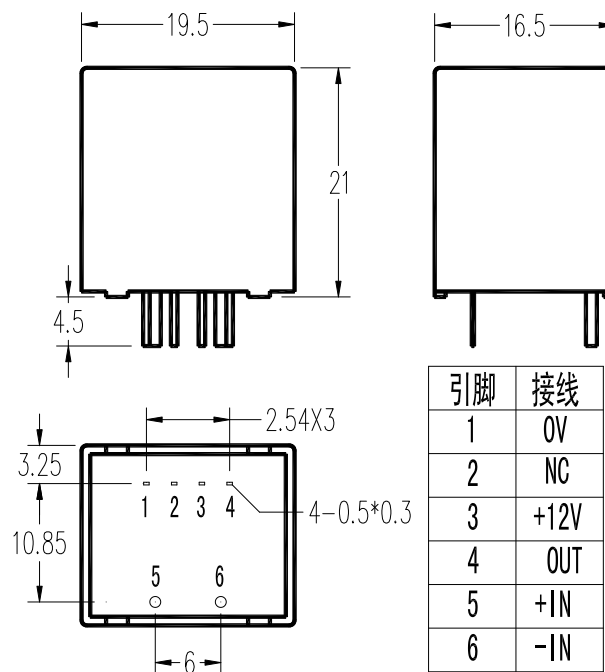
HBC03SY12 Series Hall Effect Current Sensor

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)



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.



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 resistor. It provides accurate electronic measurement of DC, AC or pulsed currents.

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/°C
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	°C
Storage Temperature	-40～+85	°C

The drawing includes two views of the PCB:

- Top View:** Shows the layout of the PCB with dimensions:
 - Overall width: 16.5
 - Overall height: 18.5
 - Pin 1 location: 7.7 from the left edge, 6.1 from the right edge, and 7.62 from the bottom edge.
 - Pin 2 location: 0.6 from the right edge.
 - Pin diameter: $\phi 1.25$
 - Internal dimensions for component placement: 0.25 and 0.5.
 - Labels for component locations: V_{REF} , V_{OUT} , GND, and V_C .
- Side View:** Shows the profile of the PCB with dimensions:
 - Width: 10
 - Thickness: 3.3
 - Mounting hole diameter: 0.5

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.



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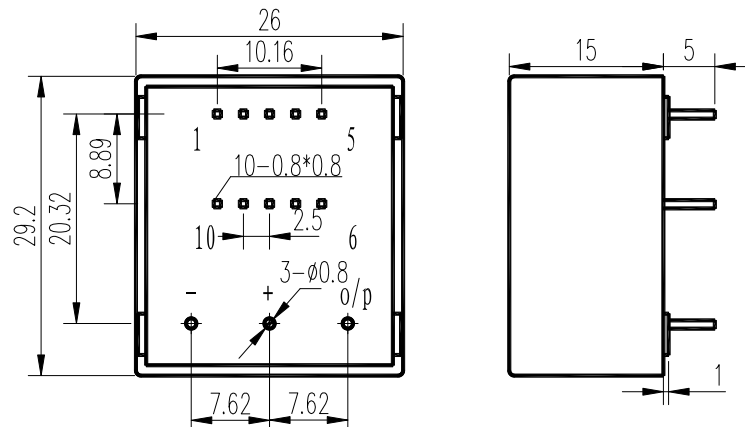
HBC-25A05 Series Hall Effect Current Sensor

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 resistor. 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°C~+85°C	±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	°C
Storage Temperature		-40~+125	°C

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	OUT 5 6 1 10 IN
2	12	24	24	2/1000	1.1	0.09	OUT 5 6 1 10 IN
3	8	16	24	3/1000	2.5	0.21	OUT 5 6 1 10 IN
4	6	12	24	4/1000	4.4	0.37	OUT 5 6 1 10 IN
5	5	10	25	5/1000	6.3	0.58	OUT 5 6 1 10 IN

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
V_C	Supply voltage	±12~±15 (±5%)	V
I_C	Current loss	$V_C=±15V$ 10+ I_S	mA
V_d	Insulation voltage	5KV AC/50Hz/1min	

Dynamic characteristics

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

Generic characteristics

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

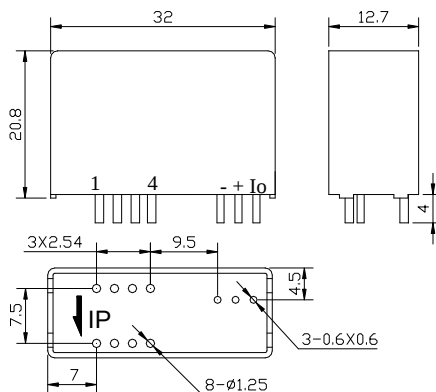
Advantages

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

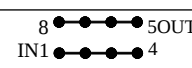
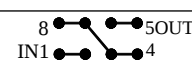
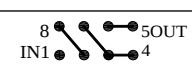
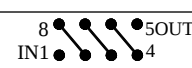
Typical applications

- ◆ 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 I_{PN} (A)	Peak current I_P (A)	Output current I_S (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 I_0 : I_{out}

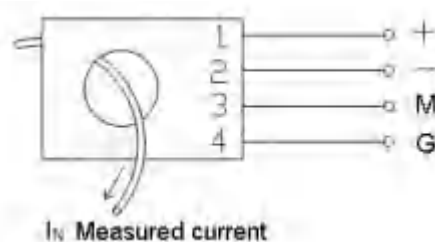
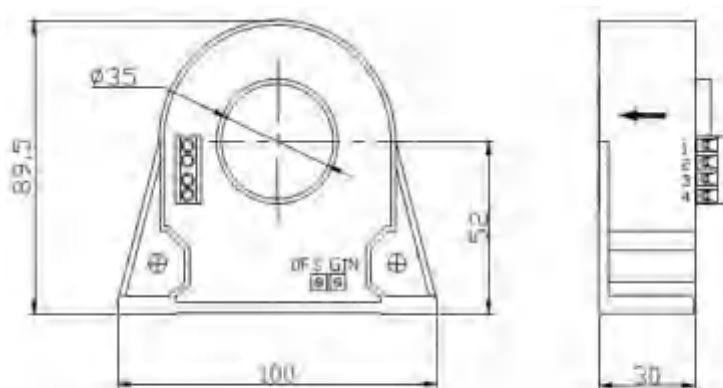
CURRENT TRANSDUCER HBC-30AS-A1

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	Measuring 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	Response 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

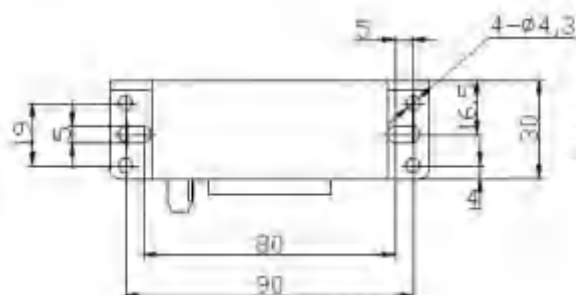
Dimensions (mm):

Circuit connection diagram:



Terminal description:

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



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





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_F	Measuring primary current range	19.2	48	80	150	A
R_M	Measurement resistance	100	100	50	50	Ω
V_{SN}	Nominal output voltage	$0.625 \pm 0.5\%$	$0.625 \pm 0.3\%$	$0.625 \pm 0.5\%$	$0.625 \pm 0.5\%$	V
K_M	Turns ratio	1:960	1:1200	1:2000	1:2000	
V_C	Supply voltage	$15 (\pm 5\%)$				V
I_C	Current loss	20				mA
V_d	Insulation voltage	2.5kV AC/50Hz/1min				

Dynamic characteristics

ε_L	Linearity	≤ 0.1		%FS
χ	Precision	$T_A = -25^\circ\text{C}$	± 0.7	%
V_0	Offset voltage	$T_A = -25^\circ\text{C}$	$2.5 \pm 0.5\%$	V
V_{OT}	Offset voltage temperature drift	$I_F=0$ $T_A = -40 \sim +85^\circ\text{C}$	± 0.5	mV/ $^\circ\text{C}$
T_R	Response time	≤ 500		ns
f	Band width (-1dB)	DC~200		KHz

Generic characteristics

T_A	Operation temperature	$-40 \sim +85$	$^\circ\text{C}$
T_S	Storage temperature	$-40 \sim +125$	$^\circ\text{C}$
	Standard		

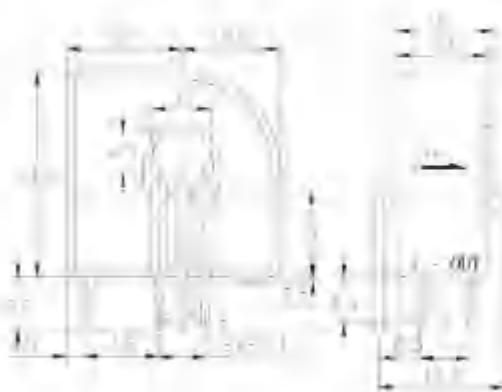
Advantages

- ◆ 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 I_F flows from terminal 1, 2, 3 to terminal 6, 5, 4; V_{out} 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_{FN} (A)	Primary resistance (m Ω)	Primary inductance (μH)	connection
1	$\pm 6 (\pm 15, \pm 25, \pm 50)$	0.18	0.013	IN OUT
2	$\pm 3 (\pm 7.5, \pm 1.25, \pm 25)$	0.81	0.05	IN OUT
3	$\pm 2 (\pm 5, \pm 8.3, \pm 16.6)$	1.62	0.12	IN OUT

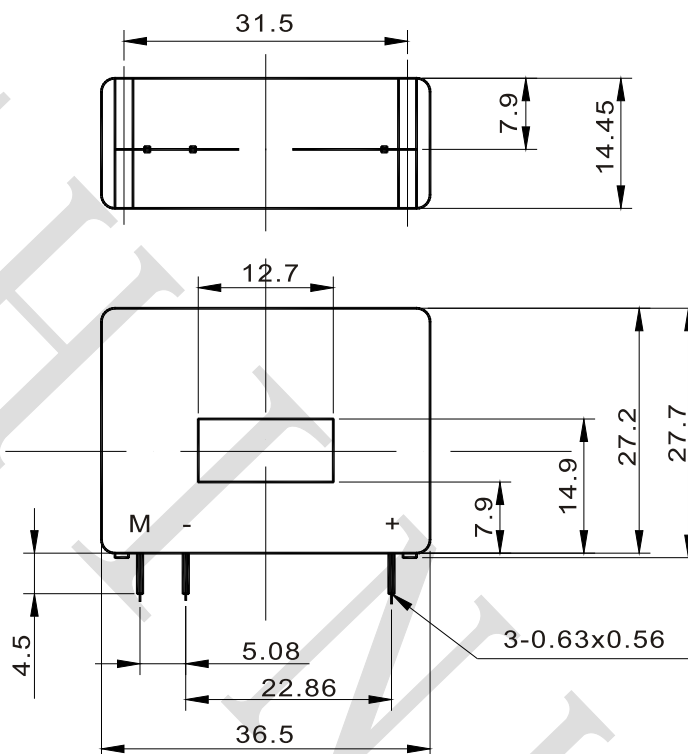


SPECIFICATION FOR APPROVAL



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

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 °C @ ± 15V	0.65	%
Current consumption	10(@±15V)+output current	mA
RMS Voltage for AC isolation 50Hz 1 min	2.5	KV
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SPECIFICATION FOR APPROVAL



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

Accuracy Dynamic Performance

Zero offset current Ta= 25 °C	$\pm 0.2\text{max}$	mA
Thermal drift of offset current	$0^{\circ}\text{C}\sim+70^{\circ}\text{C}, \pm 0.5\text{max}$ $-25^{\circ}\text{C}\sim+85^{\circ}\text{C}, \pm 0.6\text{max}$	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°C 80 Ω & Ta=85°C 85 Ω	Ω
Operating temperature	-25~+85	°C
Storage temperature	-40~+90	°C
mass	18	G
Fastening & secondary connection Recommended PCB hole	3 pins 0.9mm	

PRPARED BY		APPROVED BY	
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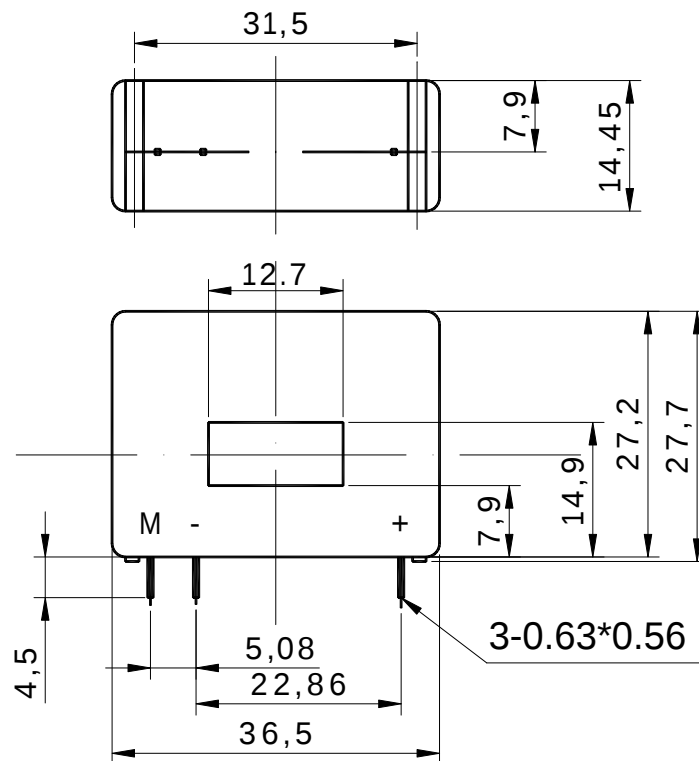
HBC-LA Series Hall Effect Current Sensor

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℃	±0.65					%
Turn ratio	1:1000					
Response time	<1					μs
Zero offset current Ta= 25℃	±0.2 max					mA
Thermal drift of offset current	-25℃ ~ +85℃, ±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					℃

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.



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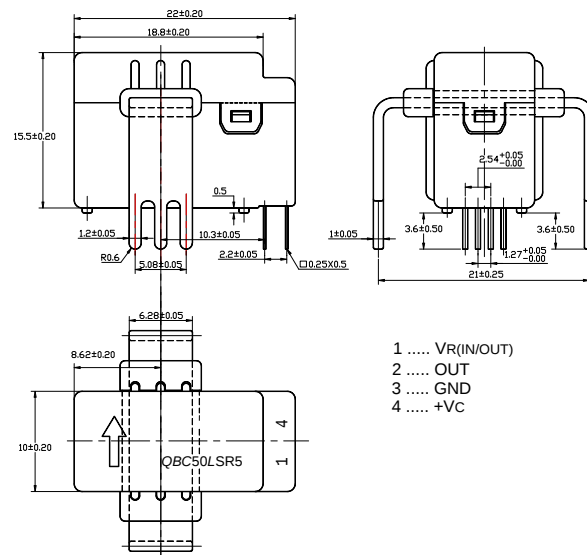
HBC50LSR5 Series Hall Effect Current Sensor

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(I _{pn})	6	10	15	20	25	30	40	50	A
Test current range(I _p)	±15	±25	±37.5	±50	±62.5	±75	±100	±105	A
Turns ratio(N _p /N _s)	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/°C
Output voltage Drift	≤±0.05								mV/°C
Linearity(I _p =0~±I _{pn})	≤±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								°C
Storage Temperature	-40~+105								°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



NOTES

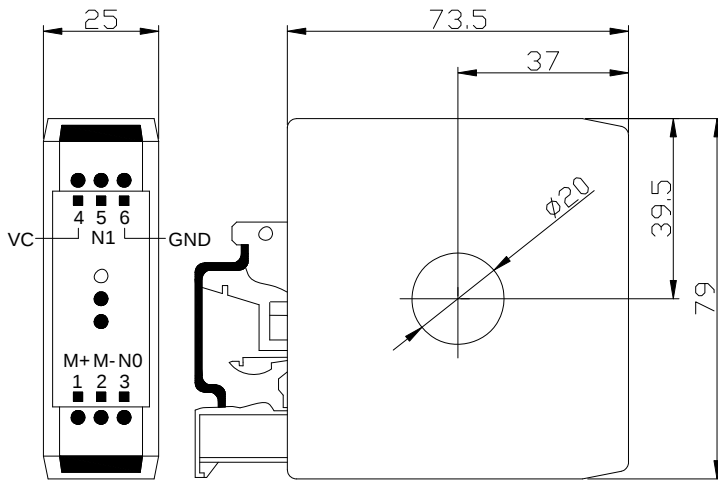
1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users' requirements.
3. Custom design in the nominal input current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

Specifications:

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

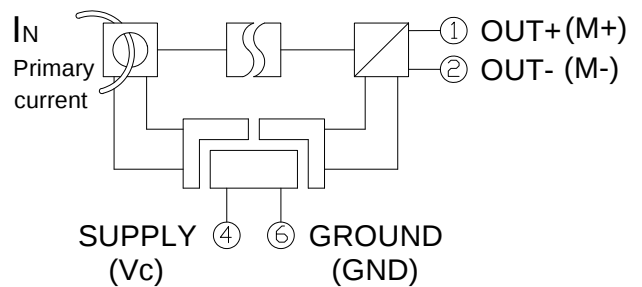
	Type	HBC-100ADS/A0	HBC-200ADS/A0	HBC-300ADS/A0
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0...120A	0...240A	0...360A
R_M	Measuring resistance	<300Ω		
I_M	Output current (DC)	Nominal output current 0...20mA, for primary nominal current 0... I_N		
X	Accuracy	$I_N \pm 1.0\%$ ($T_a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

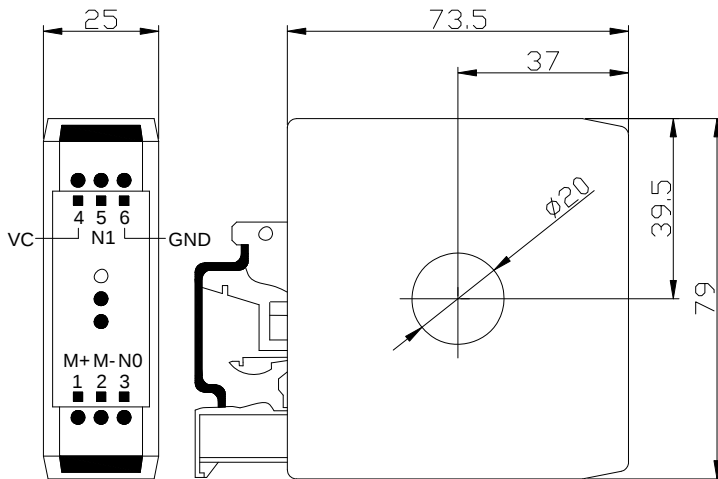
Specifications:

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

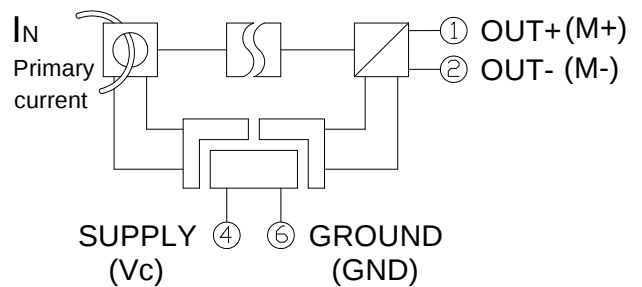
	Type	HBC-100ADS/A1	HBC-200ADS/A1	HBC-300ADS/A1
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0...120A	0...240A	0...360A
R_M	Measuring resistance	<300Ω		
I_M	Output current (DC)	Nominal output current 4...20mA, for primary nominal current 0... I_N		
X	Accuracy	$I_N \pm 1.0\%$ ($T_a = +25^\circ\text{C}$)		
K_N	Turns ratio	.....		
Vc	Supply voltage	+24V ($\pm 5\%$)		
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 $\pm$ 0.2mA max, for primary current $I_N = 0$ ($T_a = +25^\circ\text{C}$)		
Td	Temperature drift	I_M of 0.05%/°C ($T_a = -25...+85^\circ\text{C}$)		
L	Linearity	< 0.2%		
Tr	Response time	< 0.35S		
	di/dt	.....		
f	Frequency bandwidth	DC		
Ta	Operating temperature	-25°C ... +85°C		
Ts	Storage temperature	-40°C ... +90°C		
Rs	Secondary resistance	.....		
R_N	Primary resistance	.....		
W	Weight	85g		

Dimensions (mm):

Connection:



DIN rail fastening



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)

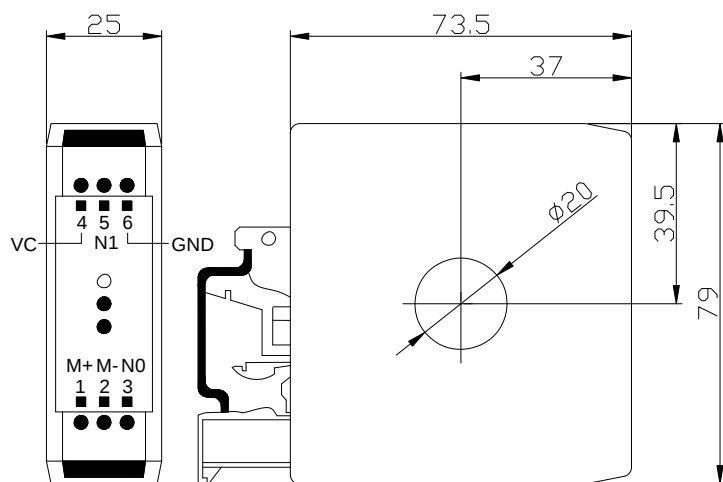
Terminal 6: ground (GND)

Specifications:

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

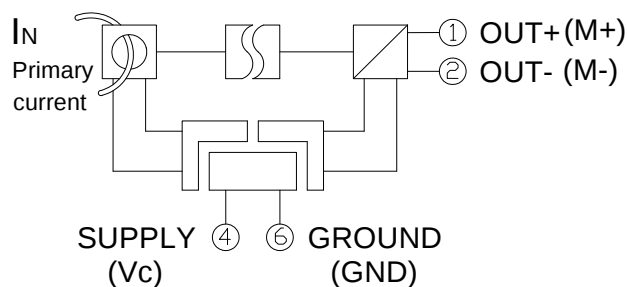
	Type	HBC-100ADS/V0	HBC-200ADS/V0	HBC-300ADS/V0
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0...120A	0...240A	0...360A
R_M	Measuring resistance	>10K Ω		
V_M	Output voltage (DC)	Nominal output voltage 0...5V, for primary nominal current 0... I_N		
X	Accuracy	$I_N \pm 1.0\%$ ($T_a =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

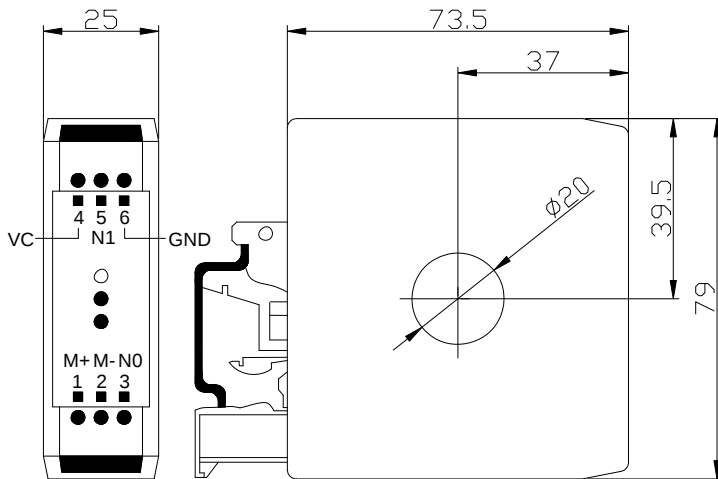
Specifications:

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

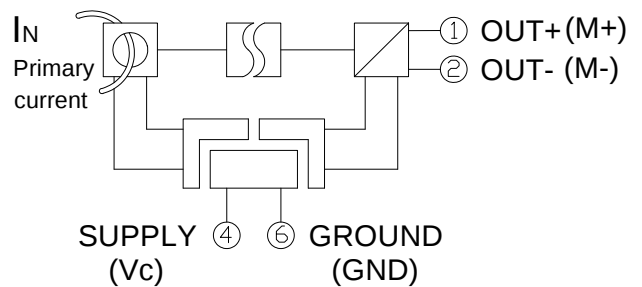
	Type	HBC-100ADS/V1	HBC-200ADS/V1	HBC-300ADS/V1
I_N	Nominal current (DC)	100A	200A	300A
I_P	Measuring range (DC)	0...120A	0...240A	0...360A
R_M	Measuring resistance	>10K Ω		
V_M	Output voltage (DC)	Nominal output voltage 1...5V, for primary nominal current 0... I_N		
X	Accuracy	$I_N \pm 1.0\%$ ($T_a =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

Dimensions (mm):

Connection:



DIN rail fastening



Secondary terminals:

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

Supply terminals:

- Terminal 4: supply voltage +24V (V_c)
- Terminal 5: non connection (N1)
- Terminal 6: ground (GND)



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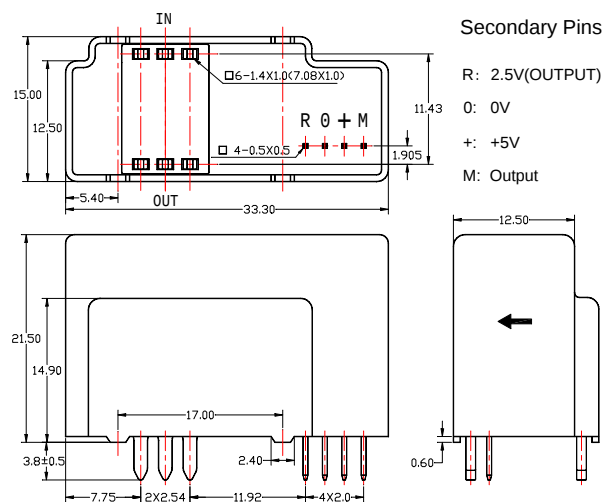
HBC100LAHS5 Series Hall Effect Current Sensor

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(I _{pn})	100	A
Test current range(I _p)	±240	A
Turns ratio(N _p /N _s)	1:1200	T
Rated output voltage	±0.625±0.5%	V
Supply voltage	+5±5%	V
Consumption current	20+ I _p * (N _p /N _s)	mA
Offset voltage	2.5±0.4%	V
Reference voltage (V _R)	2.5±0.5%	V
External reference voltage	2.0-2.8	V
Offset voltage Drift	≤±0.1	mV/°C
Output voltage Drift	≤±0.05	mV/°C
Linearity(I _p =0-±I _{pn})	≤±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(T _A)	-40~+85	°C
Storage Temperature(T _S)	-40~+105	°C
Gross weight(M)	22	g

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



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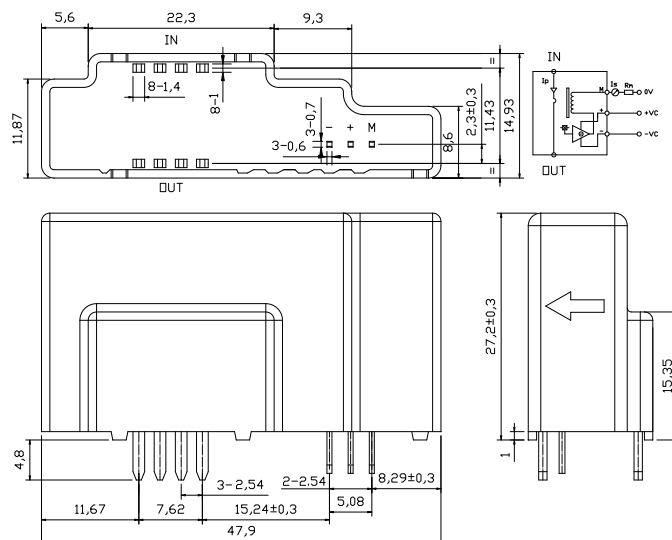
HBC125LAH Series Hall Effect Current Sensor

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°C)

	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°C @±15V)	≤±20	mA
Turns ratio	1:1000	
Zero current imbalance	≤±0.2	mA
Electric loss thermostat drift(-40°C~+85°C)	≤±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°C	35	Ω
Operating Temperature	-40~+85	°C
Storage Temperature	-40~+105	°C

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.



SHAANXI SHINHOM ENTERPRISE CO.,LTD

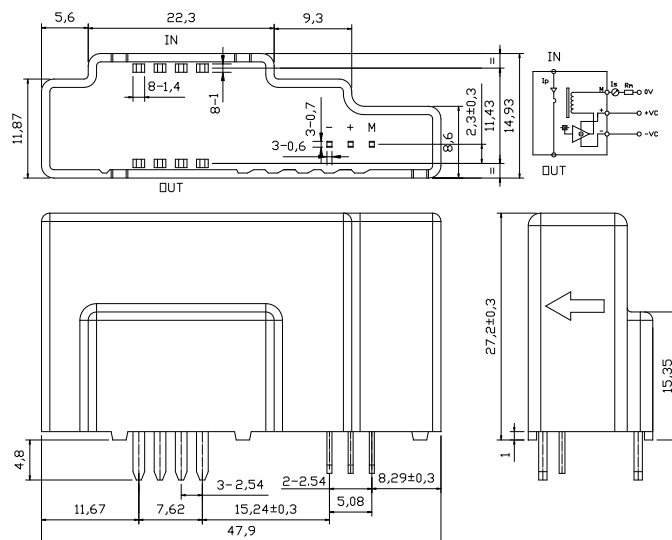
HBC125LAH Series Hall Effect Current Sensor

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°C)

	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°C @±15V)	≤±20	mA
Turns ratio	1:1000	
Zero current imbalance	≤±0.2	mA
Electric loss thermostat drift(-40°C~+85°C)	≤±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°C	35	Ω
Operating Temperature	-40~+85	°C
Storage Temperature	-40~+105	°C

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.

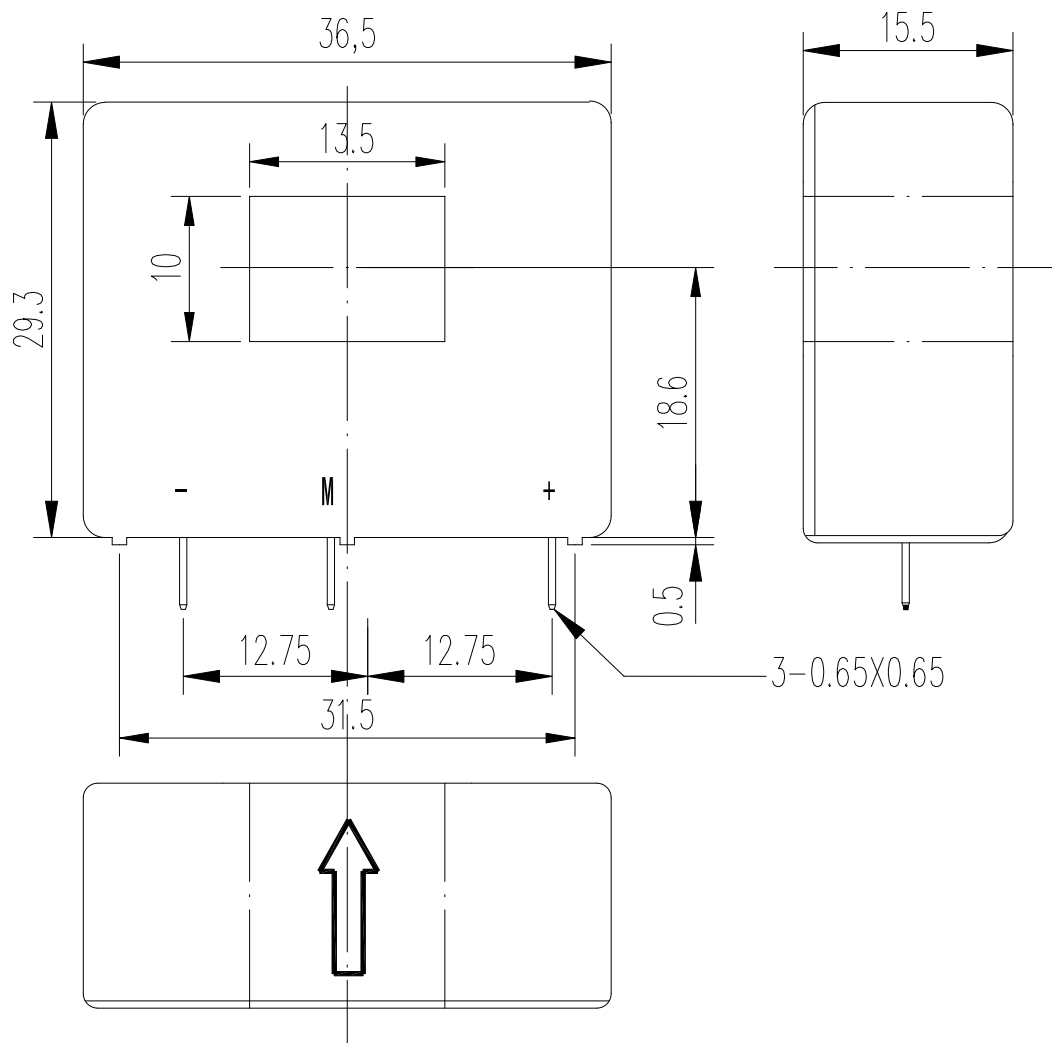


SHAANXI SHINHOM ENTERPRISE CO.,LTD

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. MOUNTING DIMENSIONS(FOR REFERENCE ONLY)





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/°C
Linearity	≤0.2	%FS
Response Time	<1	μS
Isolation voltage 50HZ,1min	2.5	KV
Operating Temperature	-20~+85	°C
Storage Temperature	-25~+85	°C

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.



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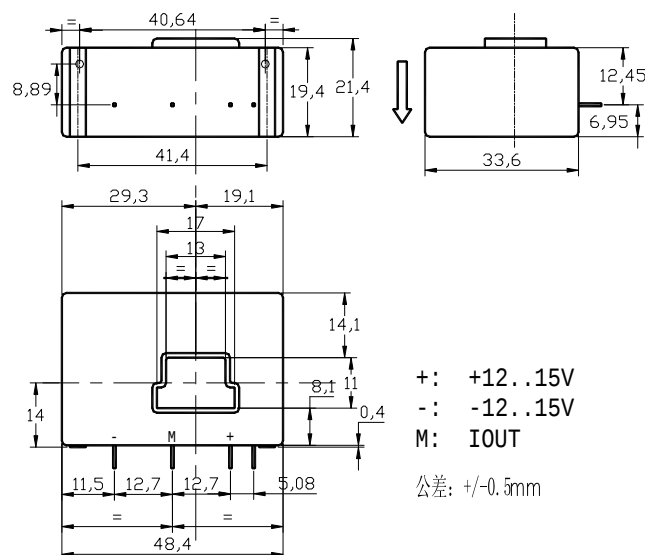
HBC200LAP-100mA Hall Effect Current Sensor

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/°C
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	°C
Storage Temperature(TS)	-40~+105	°C

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

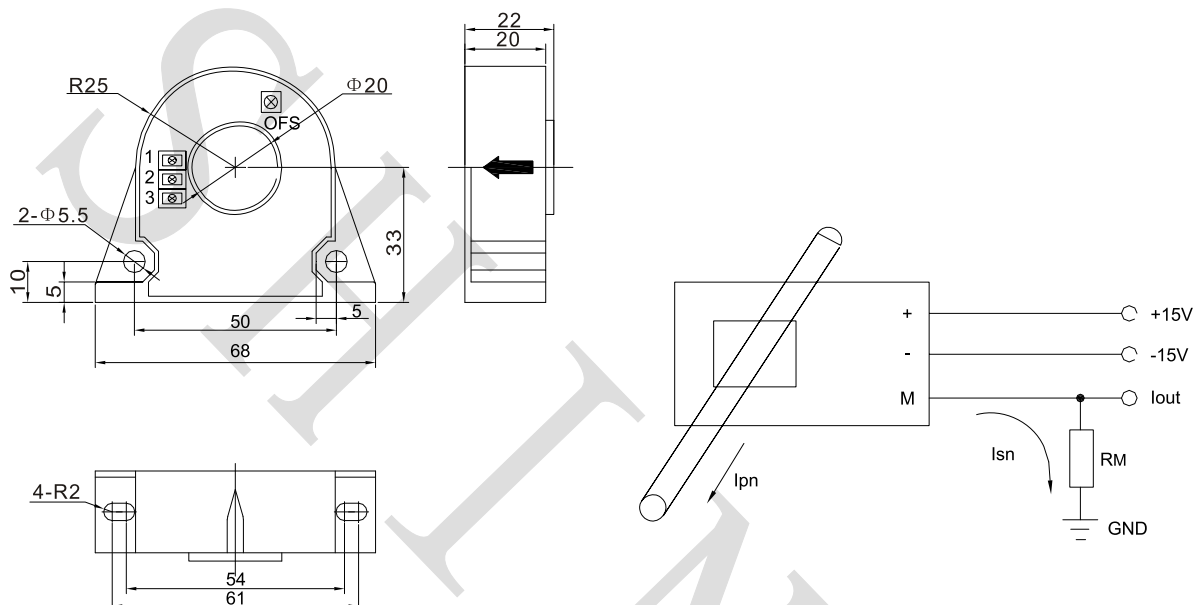


SPECIFICATION FOR APPROVAL



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

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 °C	0.8	%
Current consumption	20(@ ±15V)+output current	mA
RMS rated Voltage	safe seperation-1625	V
	Basic isolation-3250	
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



SPECIFICATION FOR APPROVAL



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

Accuracy Dynamic Performance

Zero offset current Ta= 25 °C	$\pm 0.15\text{max}$	mA
Thermal drift of offset current	$-10^{\circ}\text{C}\sim+85^{\circ}\text{C}, \pm 0.3\text{max}$	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°C 35 Ω & Ta=85°C 37 Ω	Ω
Operating temperature	-10~+85	°C
Storage temperature	-40~+90	°C

PRPARED BY		APPROVED BY	
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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



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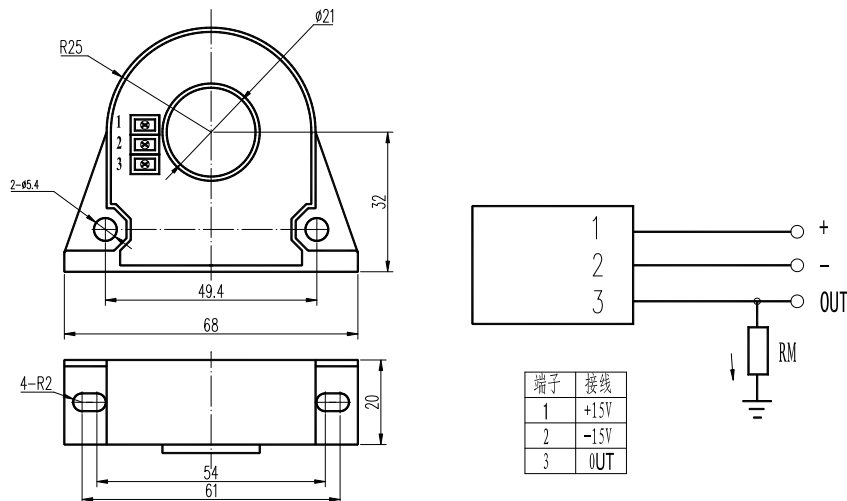
HBC200LTA-100mA Hall Effect Current Sensor

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(I _{pn})	200	A
Test current range(I _p)	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/°C
Linearity	≤±0.2	%FS
Response time	<1	μS
Insulation voltage(50HZ,AC,1min)	2.5	KV
Operating Temperature(TA)	-20~+85	°C
Storage Temperature(TS)	-25~+85	°C

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

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 ($V_C=\pm 15V/ I_{PN}$)	100(max)	110(max)	120(max)	100(max)	Ω
	($V_C=\pm 15V/ I_P$)	50(max)	40(max)	30(max)	36(max)	Ω
V_C	Supply voltage	$\pm 12 \sim \pm 18 (\pm 5\%)$				V
I_C	Current loss	$V_C=\pm 15V$ 20+ I_S				mA
V_d	Insulation voltage	6KV AC/50Hz/1min				

Dynamic characteristics

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

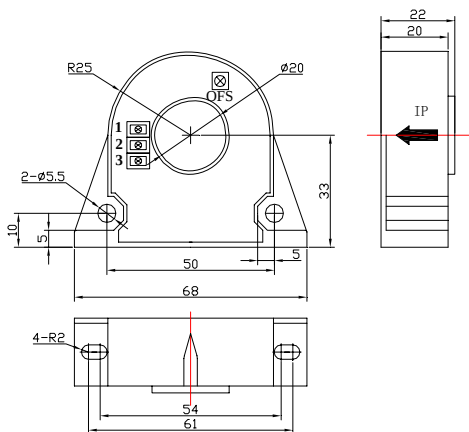
Generic characteristics

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

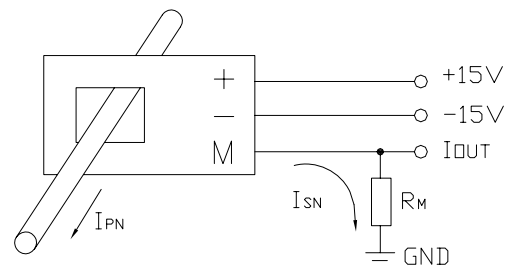
package outline (mm)



Typical applications

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

circuit connection diagram



Elucidation:

- 1: +15V 2: -15V
3: Iout OFS: zero adjustment

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	$0 \sim \pm 150$	$0 \sim \pm 300$	$0 \sim \pm 600$	$0 \sim \pm 900$	A
I_{SN}	Nominal output current	25	50	100	100	mA
K_N	Turns ratio	1: 2000			1:3000	
R_M	Measurement resistance($V_C = \pm 15V / I_{PN}$)	100(max)	110(max)	120(max)	100(max)	Ω
	($V_C = \pm 15V / I_P$)	50(max)	40(max)	30(max)	36(max)	Ω
V_C	Supply voltage	$\pm 12 \sim \pm 18$ ($\pm 5\%$)				V
I_C	Current loss	$V_C = \pm 15V$ 20+ I_S				mA
V_d	Insulation voltage	6KV AC/50Hz/1min				

Dynamic characteristics

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

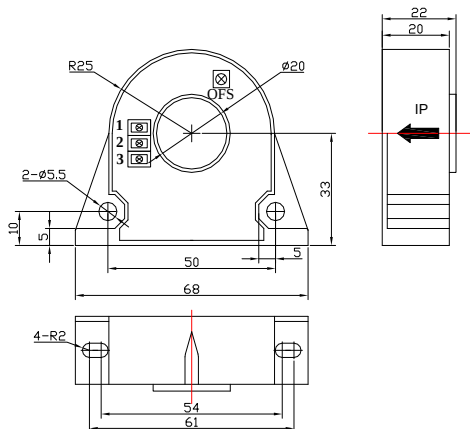
Generic characteristics

T_A	Operation temperature	$-40 \sim +85$				$^\circ C$
T_S	Storage temperature	$-40 \sim +125$				$^\circ C$
R_S	Secondary internal resistance $T_A = 25^\circ C$	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

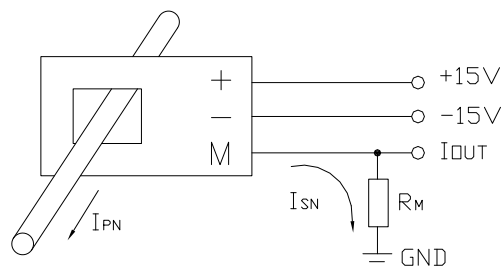
package outline (mm)



Typical applications

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

circuit connection diagram



Elucidation:

- 1: +15V 2: -15V
3: Iout OFS: zero adjustment



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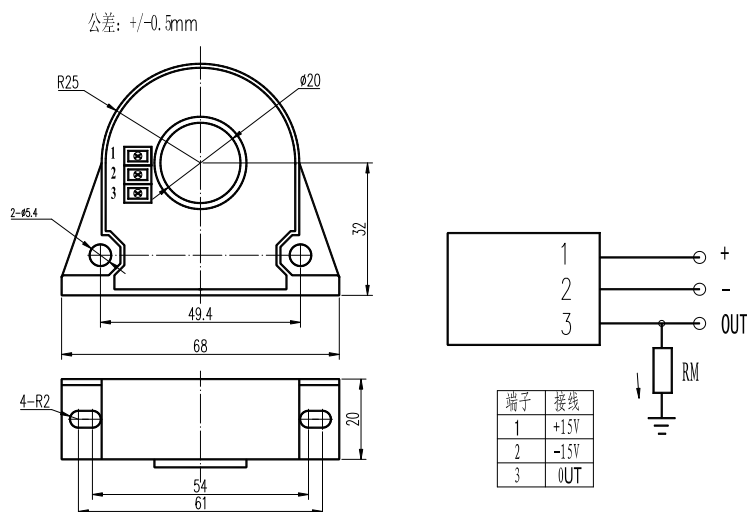
HBC300LTA-150mA Hall Effect Current Sensor

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(I _{pn})	300	A
Test current range(I _p)	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/°C
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	°C
Storage Temperature(TS)	-25~+105	°C

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

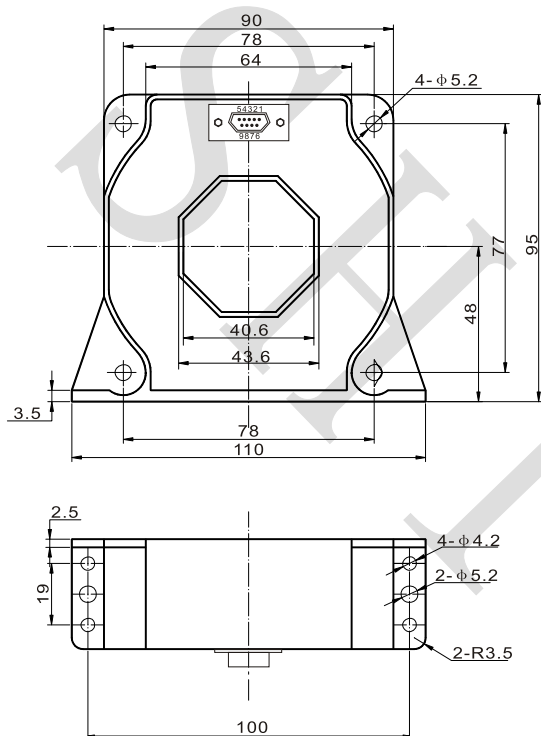


SPECIFICATION FOR APPROVAL



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

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 °C	±0.65	%
Current consumption	14(@±15V)+output current	mA
RMS Voltage for AC isolation 50Hz 1 min	6	KV
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SPECIFICATION FOR APPROVAL



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

Accuracy Dynamic Performance

Zero offset current Ta= 25 °C	$\pm 0.4\text{max}$	mA
Thermal drift of offset current	$-10^{\circ}\text{C}\sim+70^{\circ}\text{C}, \pm 0.4\text{max}$	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°C 55 Ω	Ω
Operating temperature	-10~+70	°C
Storage temperature	-25~+85	°C
mass	500	g

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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	$100 \pm 0.5\%$	$100 \pm 0.5\%$	mA
K_N	Turns ratio	1: 3000	1: 5000	
R_M	Measurement resistance ($V_C = \pm 15V / I_{PN}$)	110(max)	100(max)	Ω
	($V_C = \pm 18V / I_{PN}$)	130(max)	120(max)	Ω
V_C	Supply voltage	$\pm 15 \sim \pm 24 (\pm 5\%)$		V
I_C	Current loss	$V_C = \pm 15V$	$20 + I_S$	mA
V_d	Insulation voltage	5KV AC/50Hz/1min		

Dynamic characteristics

ϵ_L	Linearity	≤ 0.2	%FS
I_0	Offset current	$T_A=25^{\circ}\text{C} \quad V_C=\pm 15\text{V}$ ± 0.2	mA
I_{OM}	Residual current	$I_P \rightarrow 0$ ± 0.1	mA
I_{OT}	Offset current temperature drift	$I_P=0 \quad T_A=-10\sim +70^{\circ}\text{C}$ $\pm 0.20\sim \pm 0.64$	mA/ $^{\circ}\text{C}$
T_R	Response time	≤ 1	μs
f	Band width (-3dB)	DC~100	KHz

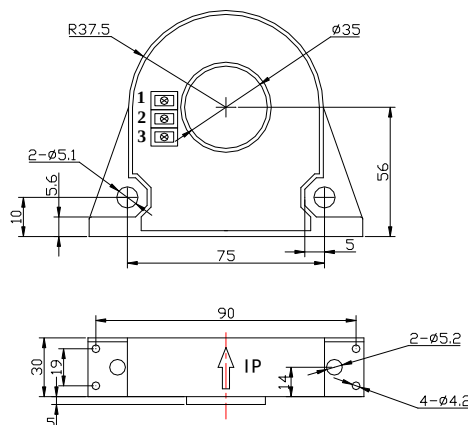
Generic characteristics

General characteristics				
T _A	Operation temperature	-40~ +85		°C
T _S	Storage temperature	-25~ +125		°C
R _S	Secondary internal resistance T _A =25°C	31	45	Ω
	Standard			

Advantages

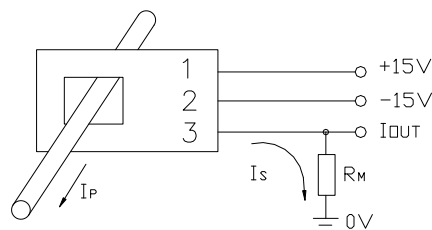
- ◆ excellent precision ,good linearity
- ◆ better anti-jamming capability
- ◆ low temperature drift, quick response time
- ◆ broad frequency band width
- ◆ good over-current capability

package outline (mm)



Typical applications

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



Pin: 1: +15V 2: -15V 3: IOUT

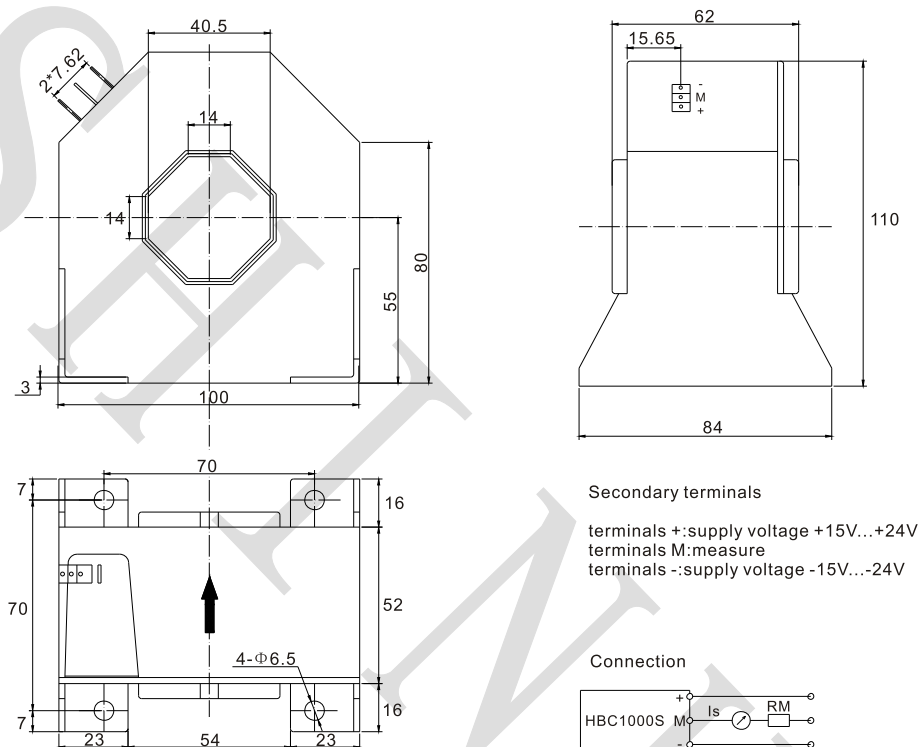


SPECIFICATION FOR APPROVAL



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

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 °C	±0.4	%
Current consumption	25+ output current	mA
RMS Voltage for AC isolation 50Hz 1 min	6	KV
RMS rated Voltage	safe seperation-1750	V
	Basic isolation-3500	
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SPECIFICATION FOR APPROVAL



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

Accuracy Dynamic Performance

Zero offset current Ta= 25 °C	$\pm 0.7\text{max}$	mA
Thermal drift of offset current	$-10^{\circ}\text{C}\sim+70^{\circ}\text{C}, \pm 0.4\text{max}$	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°C 17 Ω	Ω
Operating temperature	-25~+70	°C
Storage temperature	-40~+85	°C
Mass	600	g

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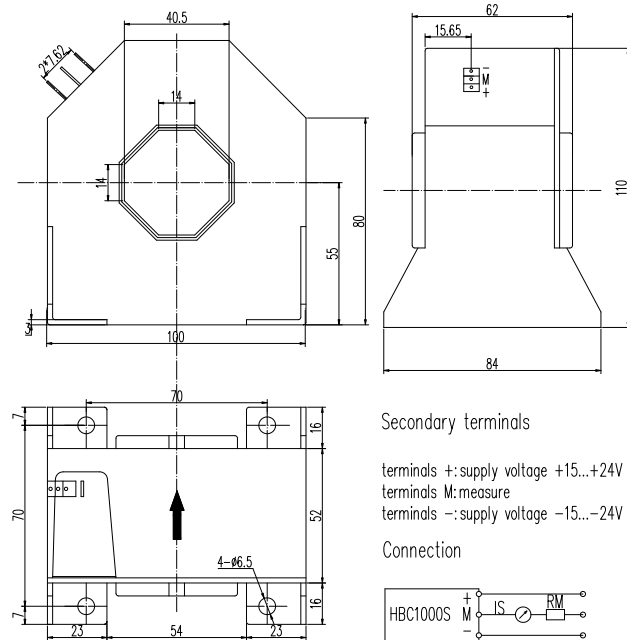
HBC-S Series Hall Effect Current Sensor

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°C ~ +85°C, ±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		°C
Storage temperature	-40~+105		°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



DIRECTIONS FOR USE

1. Is will be in a forward direction when the I_p flows according to the direction of the arrowhead.
2. The primary conductor should be $\leq 120^\circ\text{C}$.
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.

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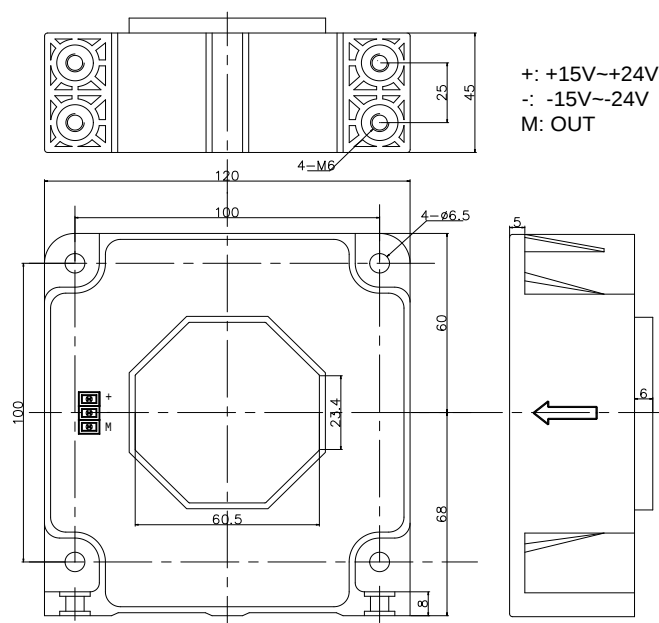
HBC-LSH Hall Effect Current Sensor

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°C)

		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°C~85°C	±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	°C
Storage temperature		-40~+125	°C

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;

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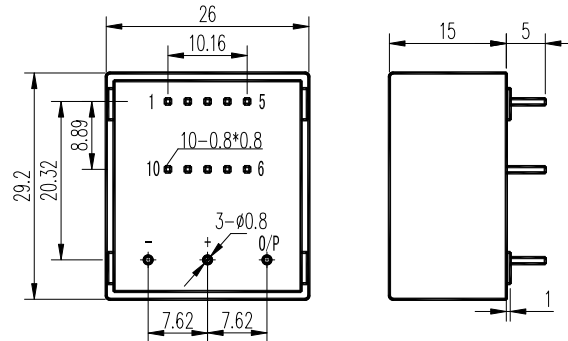
HBC-25A05 Series Hall Effect Current Sensor

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 ($\pm 15V$)	Ω
Rated output current	25 $\pm 0.5\%$	mA
Supply voltage	$\pm 15 \pm 5\%$	V
The supply consumes current statically 25°C	± 12	mA
Turns ratio	1:1000	
Zero offset current	$\leq \pm 0.15$	mA
Offset current Drift -40°C~+85°C	$\leq \pm 0.60$	mA
Response time	<1	μs
Linearity	$\leq \pm 0.2$	%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	°C
Storage Temperature	-40~+105	°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(I _{pn})	Peak input current(I _p)	Rated output Current(mA)	Turns ratio	Pri Z m Ω	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	

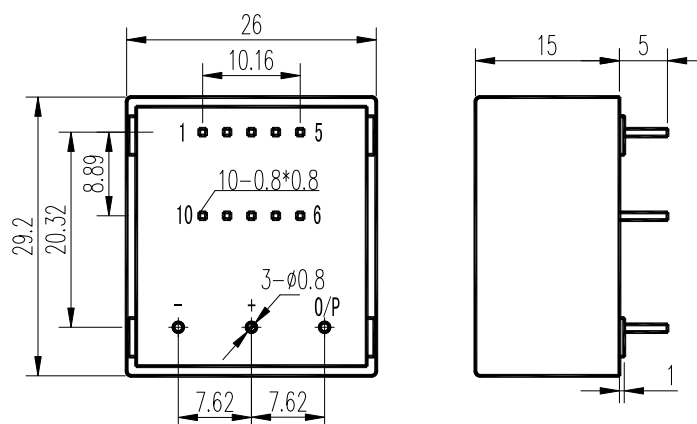
HBC25A05 Series Hall Effect Current Sensor

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.

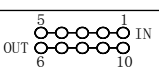
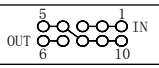
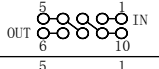
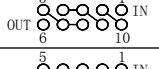
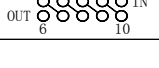
ELECTRICAL DATA

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

MUTING DIMENSIONS)



USAGE DECLARATION

Turns	Rated input current IPN	Max input current IP	Rated output current mA	Turns ratio	Pri DCR m Ω	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	

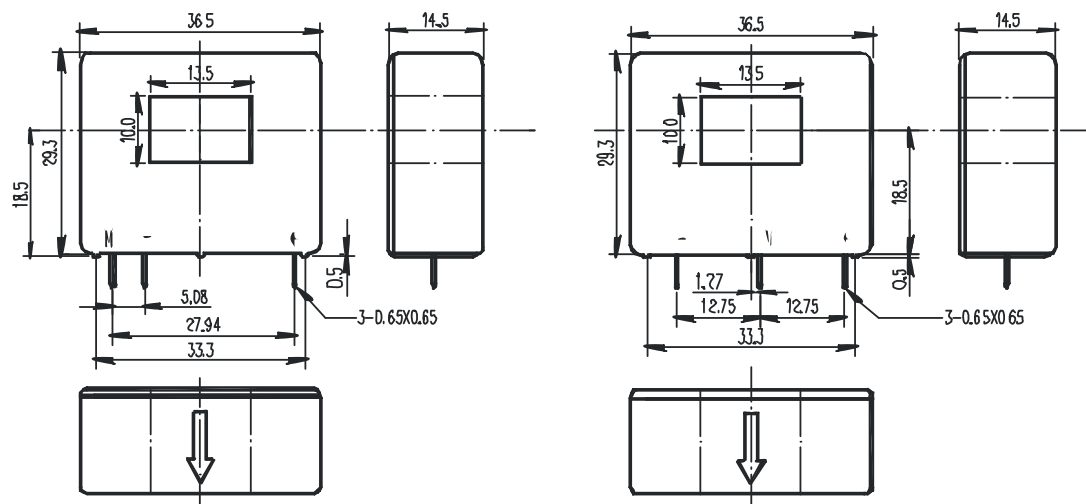
HBC-AP Series Hall Effect Current Sensor

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 $\pm$ 0.5%	50 $\pm$ 0.5%	125 $\pm$ 0.5%	100 $\pm$ 0.5%	mA
Supply Voltage	$\pm 12 \sim \pm 15$				V
Offset current	$\leq \pm 0.2$				mA
Offset current Drift	$\leq \pm 0.005$				mA/ $^{\circ}$ C
Linearity	$\leq \pm 0.2$				%FS
Bandwidth (-3db)	0~200				KHz
Response Time (100A/us)	≤ 1				us
Insulation	3.0				KV
Operating Temperature	-40~+85				$^{\circ}$ C
Storage Temperature	-40~+105				$^{\circ}$ C

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



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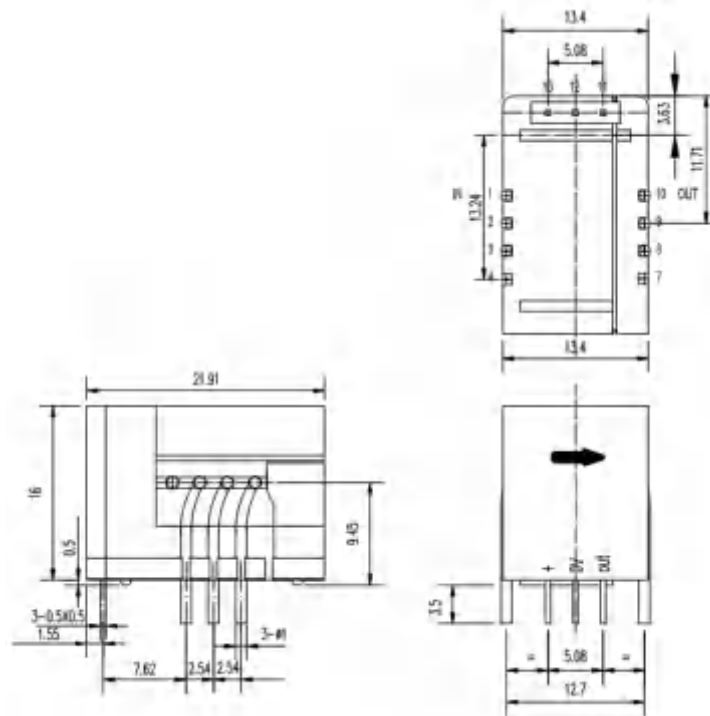
HBC-CAS Series Hall Effect Current Sensor

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°C)	≤±0.5				mV/°C
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				°C
Storage Temperature	-40~+125				°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current (I _{pn})[A]	Rated output voltage V _{out} [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	



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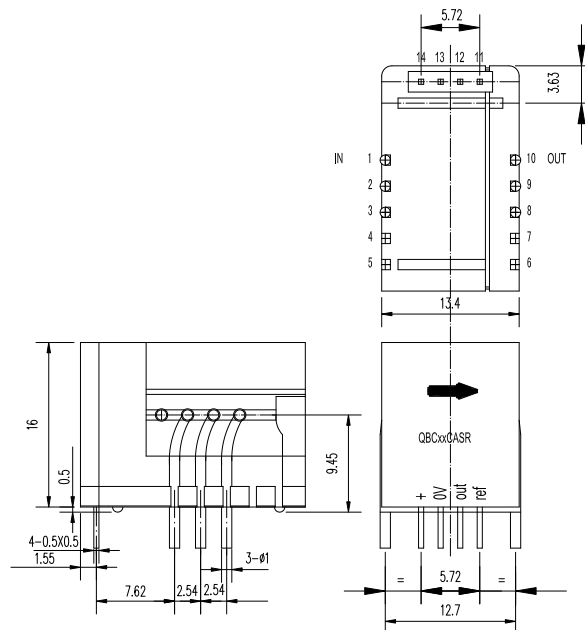
HBC-CASR Series Hall Effect Current Sensor

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(I _{pn})	6	15	25	50	A
Test current range(I _p)	19.2	48	80	100	A
Turns ratio(N _p /N _s)	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(V _{ref})	2.500±1%				V
Reference voltage drift(-40~+85°C)	±0.2				mV/°C
Offset Voltage	2.5±0.5%				V
Offset voltage drift(-40~+85°C)	±0.5				mV/°C
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				°C
Storage Temperature	-40~+105				°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(I _{pn}) [A]	Rated output voltage VOUT[V]	Pri DCR [mΩ]	Pri inductance [μH]	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	

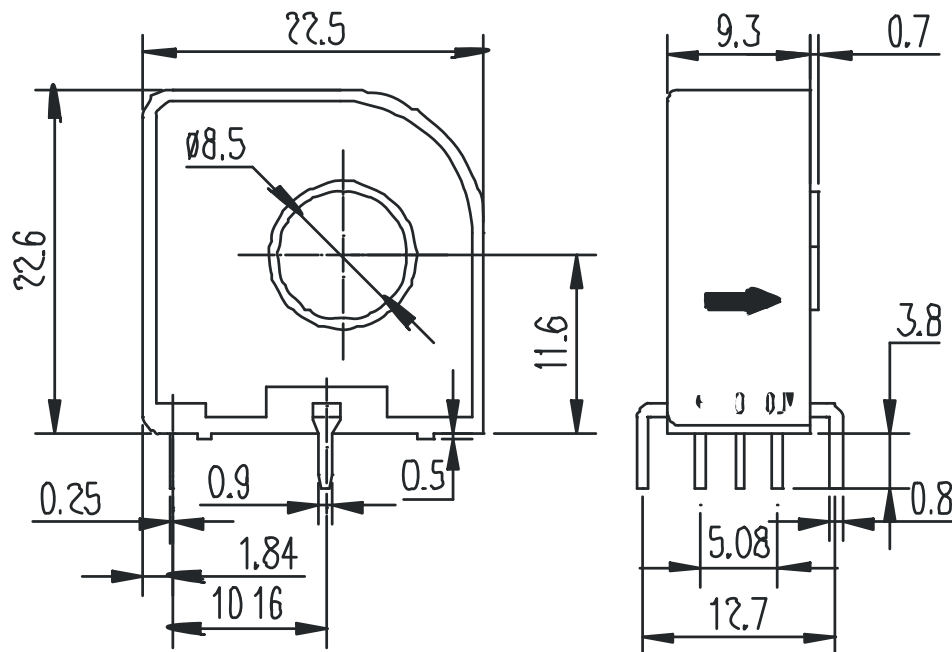
HBC-DPS5 Series Hall Effect Current Sensor

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°C ≤±0.5				mV/°C
	-40~-10°C ≤±0.75				mV/°C
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				°C
Storage Temperature	-40~+105				°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



The tolerance: +/-0.2mm



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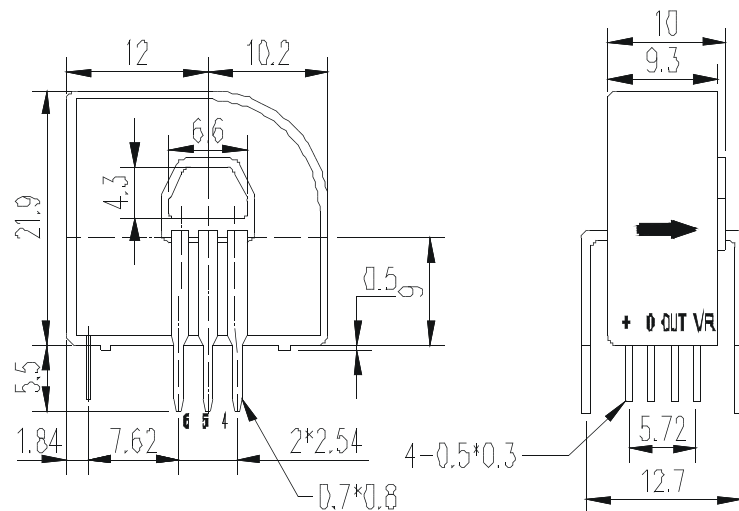
HBC-DS5 Series Hall Effect Current Sensor

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°C				mV/°C
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				°C
Storage Temperature	-40~+105				°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Turns	Rated input current(A)	Rated output voltage(V)	Pri DCR[mΩ]	Pri inductance [μH]	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	



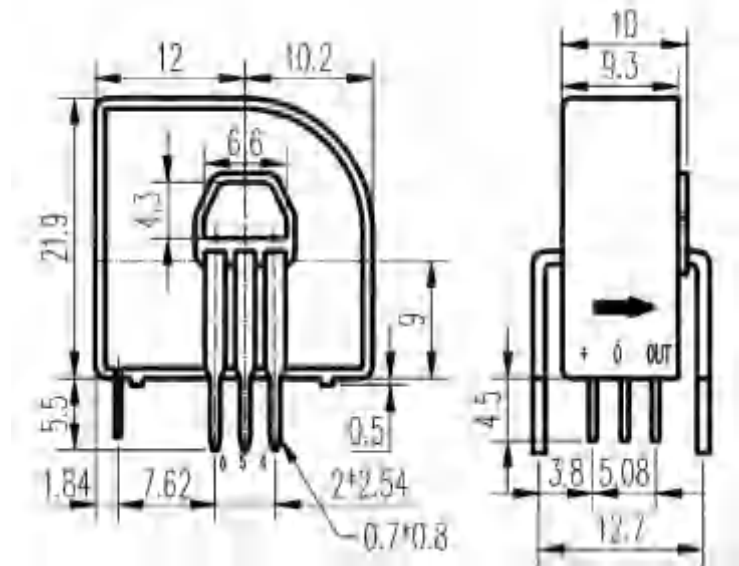
HBC-DSH5 Series Hall Effect Current Sensor

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(I _{pn})	6	15	25	50	75	A
Test current range(I _p)	±20	±51	±85	±150	±150	A
Turns ratio(N _p /N _s)	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+ I _p *(N _p /N _s)					mA
Offset voltage	2.5±0.4%					V
Offset voltage Drift	≤±0.1					mV/°C
Output voltage Drift	≤±0.05					mV/°C
Linearity	≤±0.2(I _p =0~±I _{pn})					%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					°C
Storage Temperature	-40~+105					°C
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 [μH]	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	



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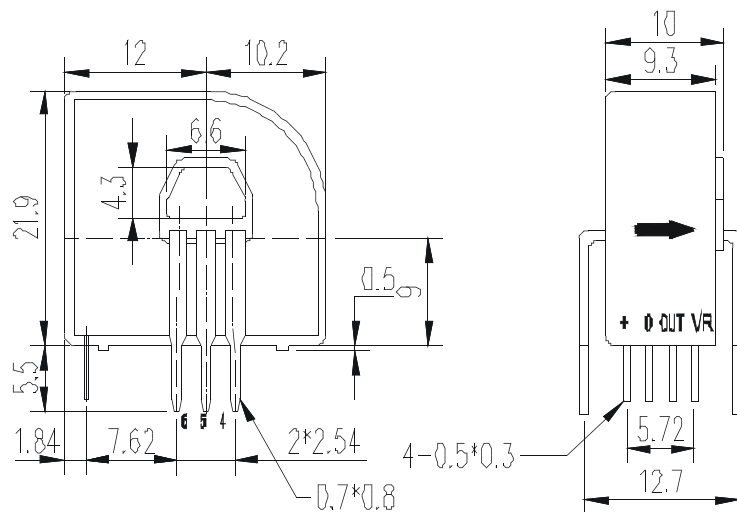
HBC-DSR5 Series Hall Effect Current Sensor

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°C				mV/°C
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				°C
Storage Temperature	-40~+105				°C

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	

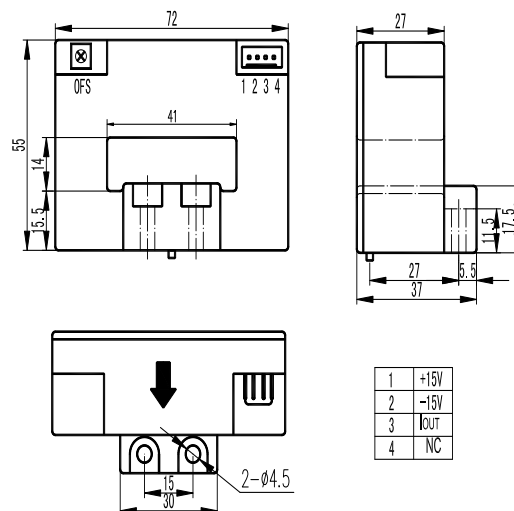
HBC-F Series Hall Effect Current Sensor

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 resistor. 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°C			±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	°C
Storage temperature				-40~+125	°C

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.

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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

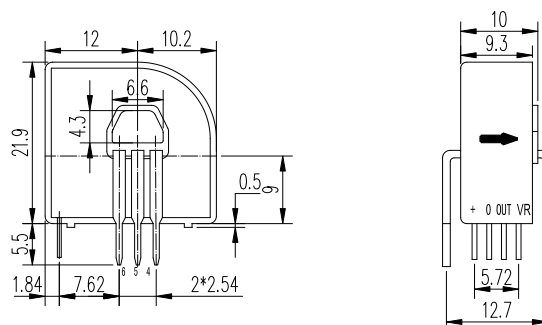
Usage declaration

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	

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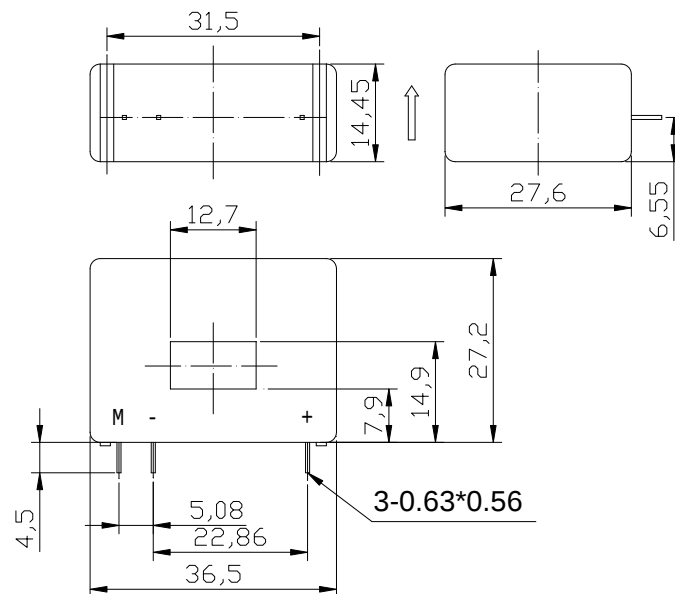
HBC-LA Series Hall Effect Current Sensor

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				°C
Storage Temperature	-40~+105				°C

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



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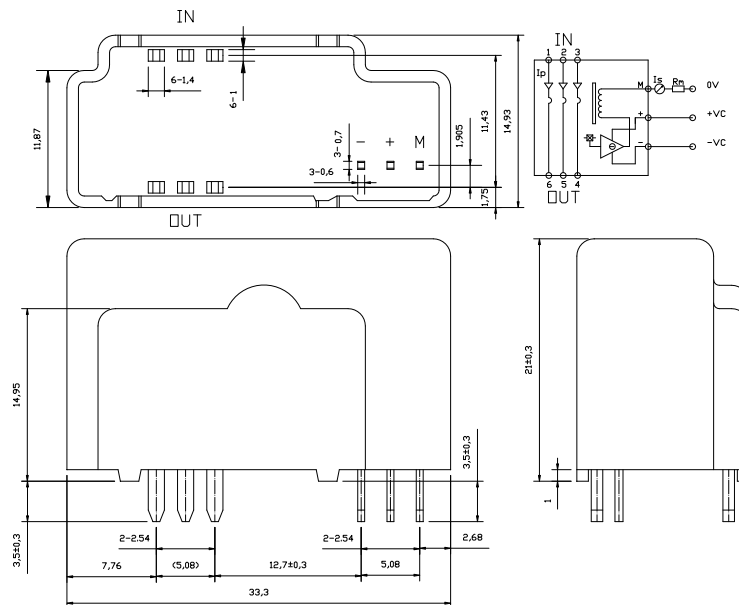
HBC-LAH Series Hall Effect Current Sensor

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°C)

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

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

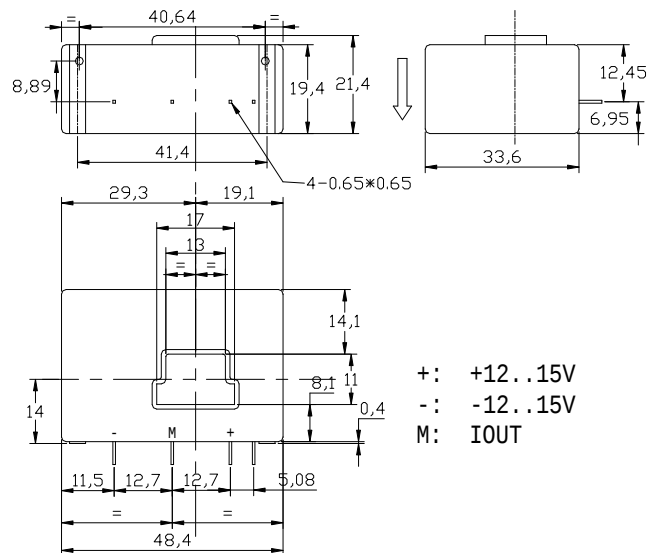
HBC-LAP Series Hall Effect Current Sensor

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			°C
Storage Temperature	-40~+105			°C

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



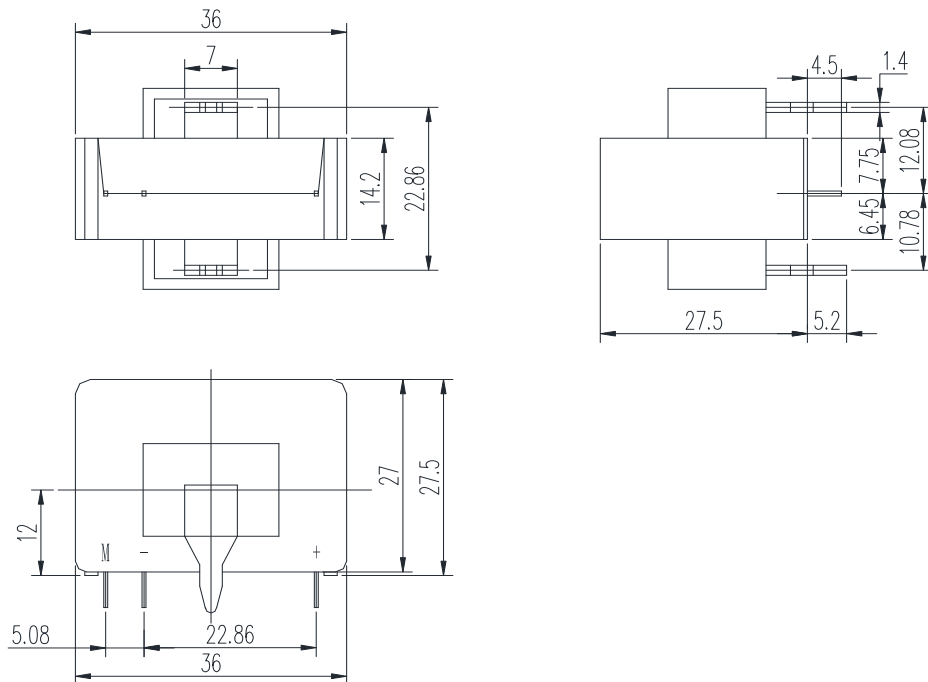
HBC-LA-T Series Hall Effect Current Sensor

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°C)

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/°C
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				°C
Storage Temperature	-40~+105				°C

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



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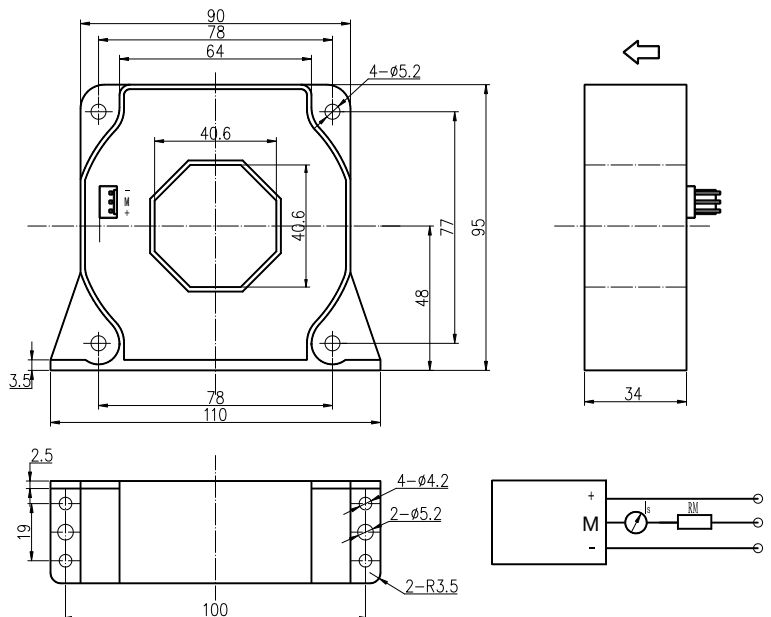
HBC-LF Series Hall Effect Current Sensor

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

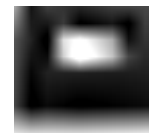
1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
2. The output amplitude of the sensor can be adjusted according to users requirements.
3. Custom design in the nominal input current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



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HBC-LP Series Hall Effect Current Sensor

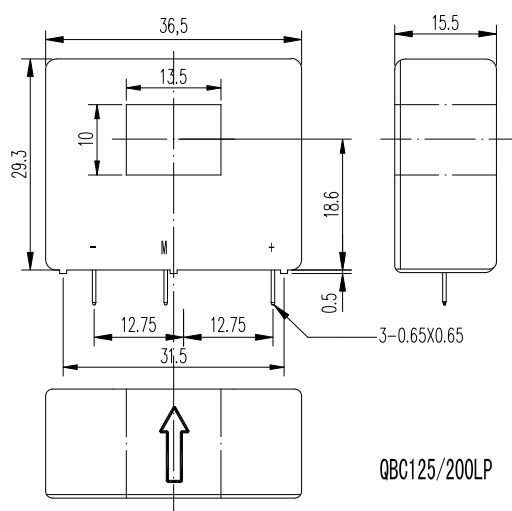
The HBC-LP series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.



ELECTRICAL DATA

		HBC125LP	HBC200LP	
Rated Current(IPN)		125	200	A
Measure Range(IP)		250(±18V, 15Ω)	400(±18V, 12Ω)	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°C~85°C		±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	°C
Storage Temperature			-40~+105	°C

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

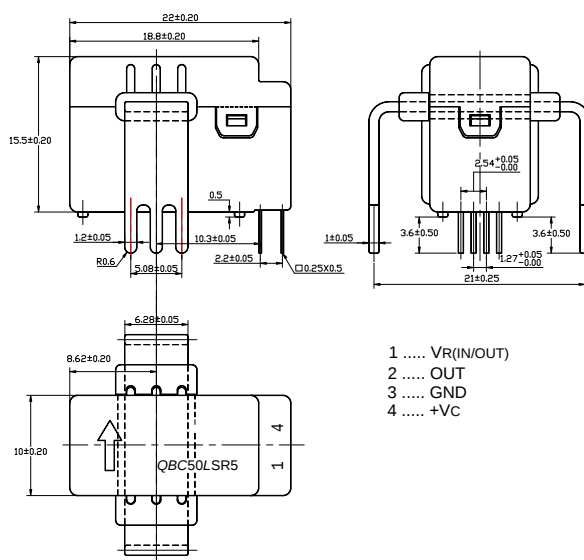
HBC-LSR5 Series Hall Effect Current Sensor

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°C)

	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/°C
Output voltage Drift	≤±0.05								mV/°C
Linearity(Ip=0-±Ip)	≤±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								°C
Storage Temperature	-40~+105								°C

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

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

Dynamic characteristics

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

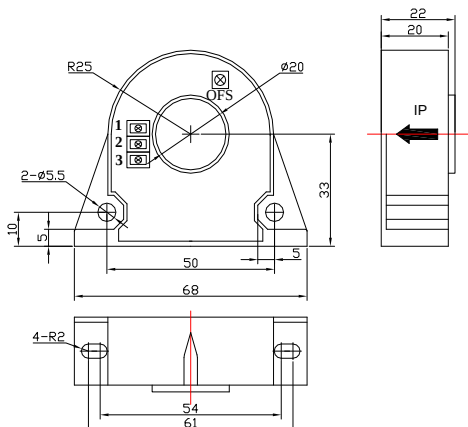
Generic characteristics

T_A	Operation temperature	$-40 \sim +85$				$^\circ C$
T_S	Storage temperature	$-40 \sim +125$				$^\circ C$
R_S	Secondary internal resistance $T_A = 25^\circ C$	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

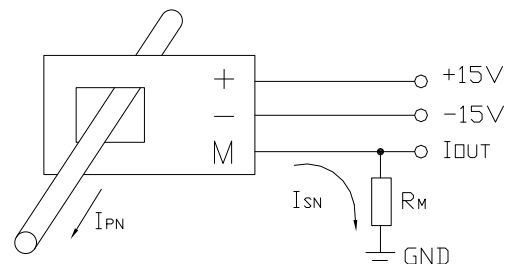
package outline (mm)



Typical applications

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

circuit connection diagram



Elucidation:

- 1: +15V 2: -15V
3: Iout OFS: zero adjustment



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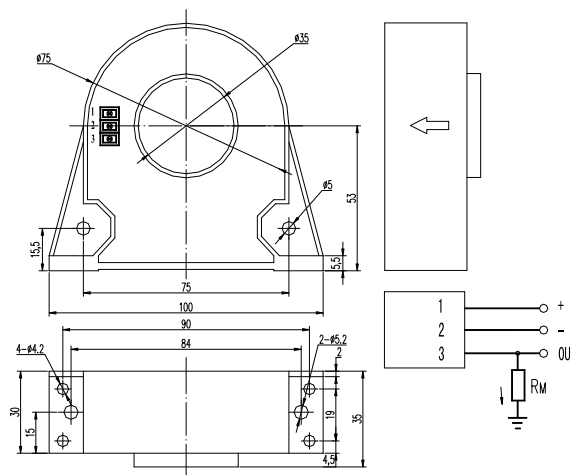
HBC-LTB Series Hall Effect Current Sensor

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 ($\pm 18V$, 51Ω)	1000 ($\pm 18V$, 39Ω)	A
Test resistance with $\pm 15V$	@ $\pm 300A_{max}$ 110(max)	@ $\pm 500A_{max}$ 100(max)	Ω
	@ $\pm 600A_{max}$ 36(max)	@ $\pm 1000A_{max}$ 25(max)	Ω
with $\pm 18V$	@ $\pm 300A_{max}$ 130(max)	@ $\pm 500A_{max}$ 120(max)	Ω
	@ $\pm 600A_{max}$ 51(max)	@ $\pm 1000A_{max}$ 39(max)	Ω
Turns ratio	1:3000	1:5000	
Rated output current	100		mA
Supply voltage	$\pm 15 \sim \pm 24$		V
Zero offset current	$\leq \pm 0.2$		mA
Offset current Drift	$\leq \pm 0.5$		mA
Response time	< 1		μs
Linearity	$\leq \pm 0.2$		%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	$-40 \sim +85$		$^{\circ}C$
Storage Temperature	$-40 \sim +105$		$^{\circ}C$

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

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					m A
V_d	Insulation voltage	2.5KV AC/50Hz/1min					

Dynamic characteristics

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

Generic characteristics

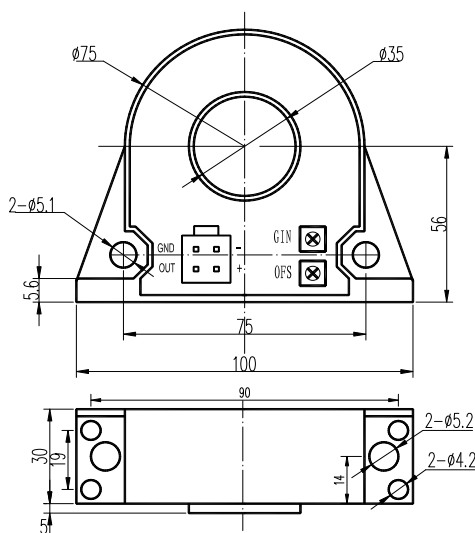
T_A	Operation temperature	-25~+85	°C
T_S	Storage temperature	-40 ~+105	°C

Advantages

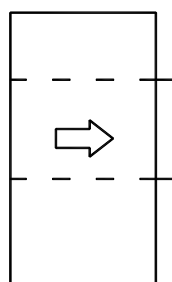
- ◆ insulation between input and output
 - ◆ competitive quality /price rate
 - ◆ no insertion loss
 - ◆ easy to installation
 - ◆ small size, light heavy
- package outline (mm)

Typical applications

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



OFS: zero adjustment GIN: gain adjustment



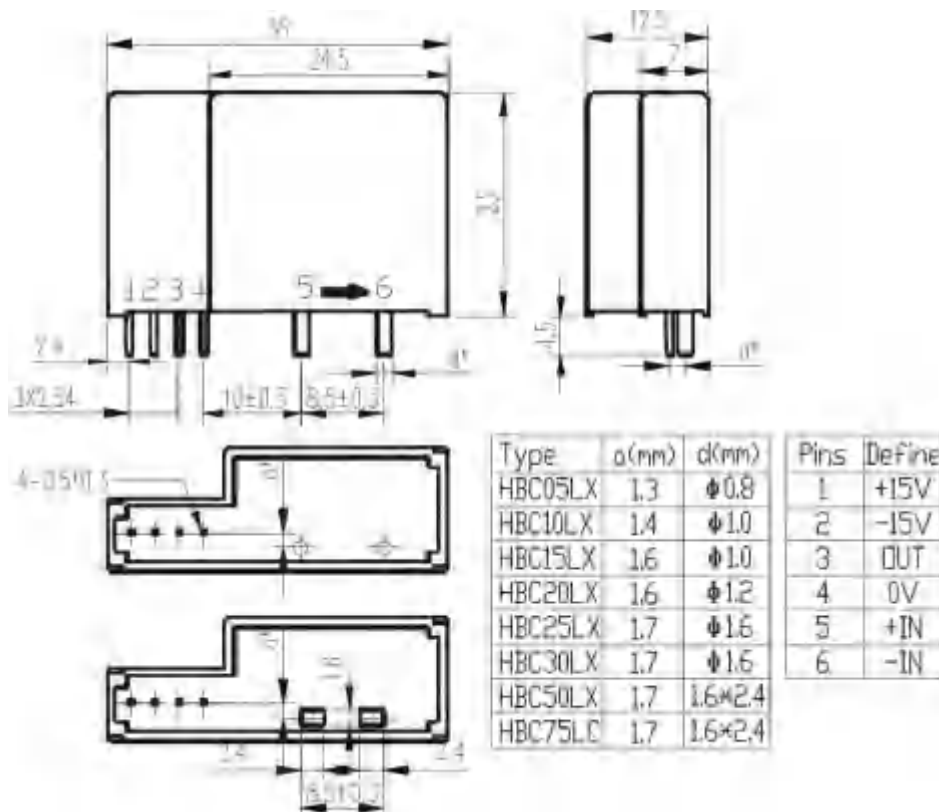
HBC-LX Series Hall Effect Current Sensor

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								%/°C
Zero Thermal drift	≤±1								mV/°C
Insulation voltage	50(60)HZ,1min, 2.5								KV
insulating strength	>1000								MΩ
Operating temperature	-40~+85								°C
Storage temperature	-40~+105								°C

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.

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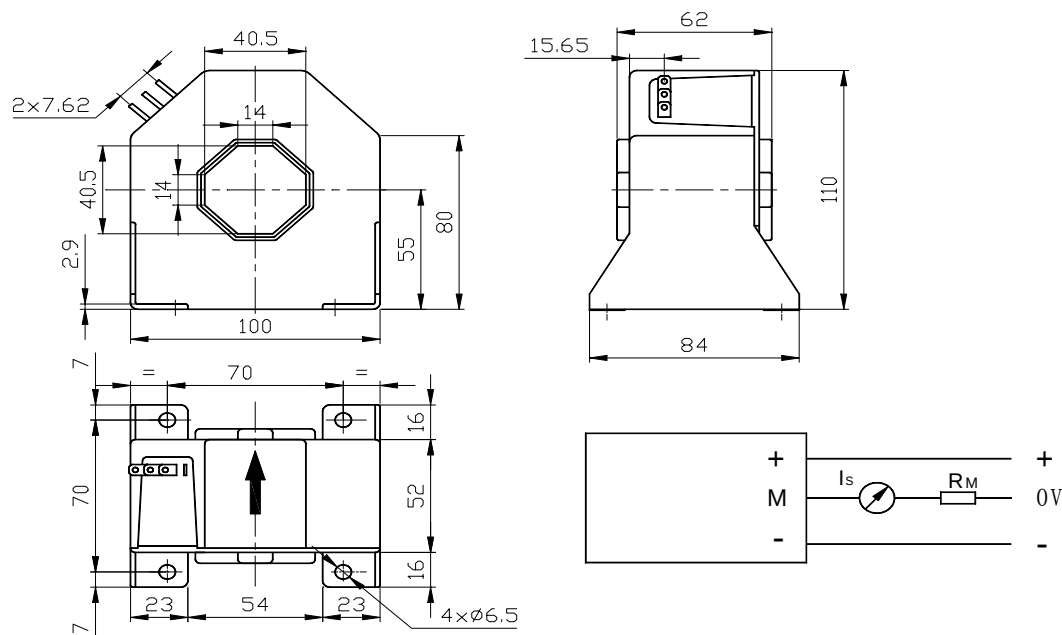
HBC-S Series Hall Effect Current Sensor

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



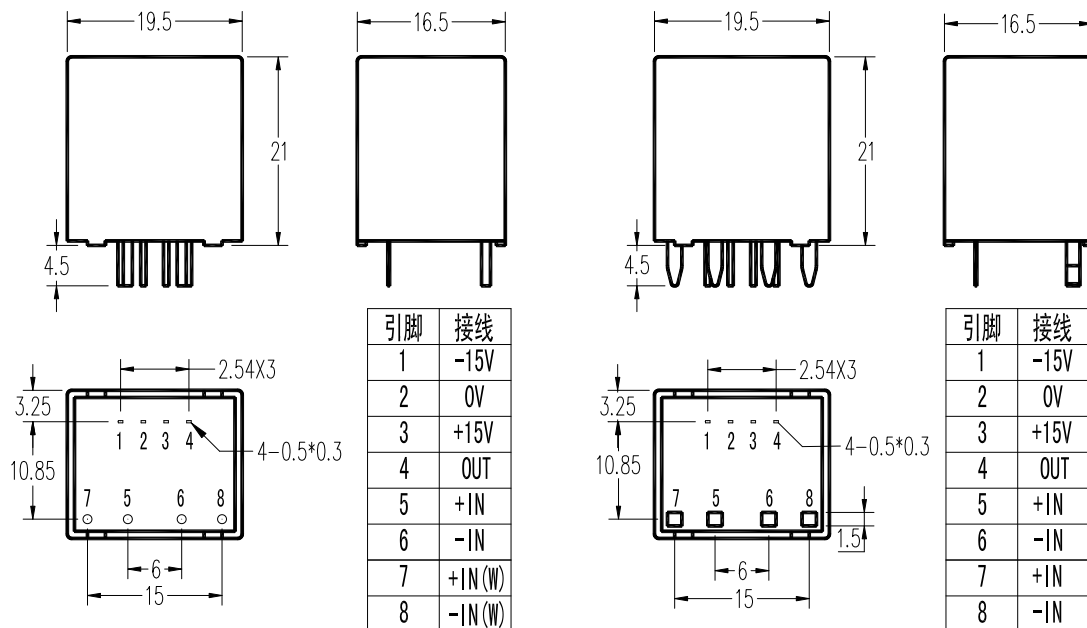
HBC-SY/SYW Series Hall Effect Current Sensor

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×ø 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/°C
Linearity	≤±0.2								%FS
Response time	<1								μS
Insulation voltage	50HZ,1min,2.5								KV
Operating Temperature	-40~+85								°C
Storage Temperature	-40~+105								°C

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



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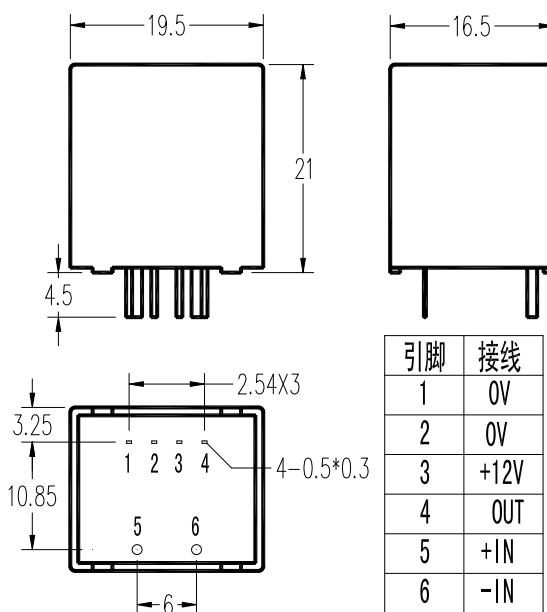
HBC-SY12MJ Series Hall Effect Current Sensor

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°C)

	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/°C
Linearity	≤±0.5					%FS
Response time	<1					μS
Insulation voltage(50HZ,1min)	2.5					KV
Operating Temperature	-20~+85					°C
Storage Temperature	-40~+105					°C

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



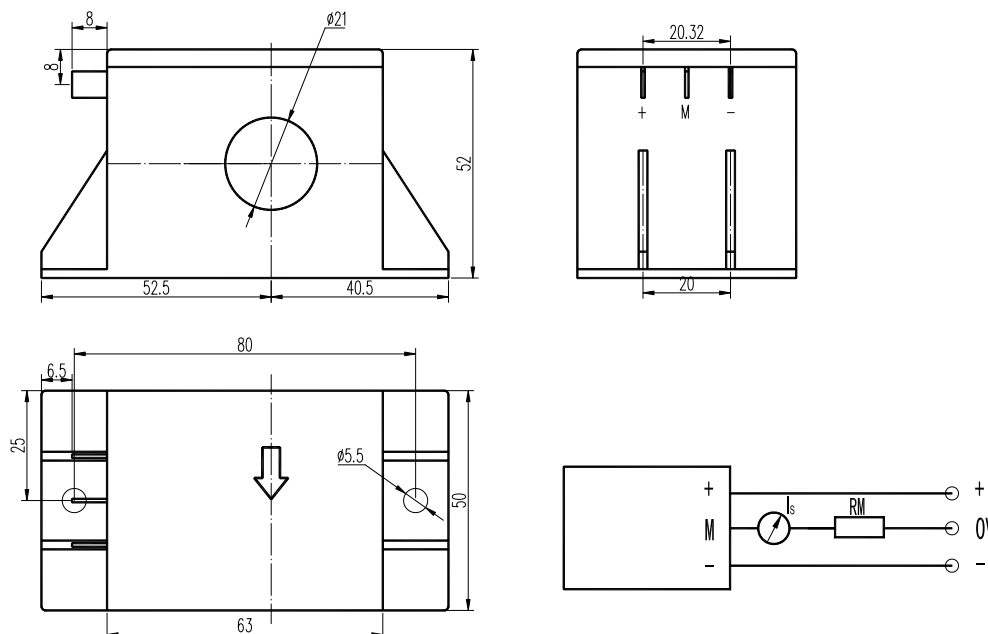
HBC-US Series Hall Effect Current Sensor

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					$\pm 12 \sim \pm 18$	V
Zero offset current					± 0.5	mA
Thermal drift of offset current	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$				± 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					$-40 \sim +85$	$^{\circ}\text{C}$
Storage temperature					$-40 \sim +125$	$^{\circ}\text{C}$

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.

mail: shinhom@globalsources.com



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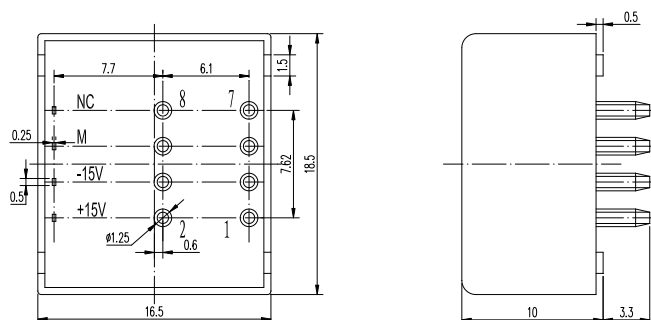
HBC-X Series Hall Effect Current Sensor

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 $\pm$ 0.5%	20 $\pm$ 0.5%	20 $\pm$ 0.5%	20 $\pm$ 0.5%	mA
Supply voltage	$\pm 15\pm 5\%$				V
Offset current	$\leq \pm 0.25$				mA
Offset current Drift	$-40\sim +85^{\circ}\text{C} \leq \pm 0.5$				mA
Linearity	$\leq \pm 0.2$				%FS
Class	$\leq \pm 0.7$				%
di/dt	> 50				A/ μS
Response time	< 1				μS
Bandwidth	DC $\sim$ 200				KHZ
Insulation voltage	2.5				KV
Operating Temperature	$-40\sim +85$				$^{\circ}\text{C}$
Storage Temperature	$-40\sim +105$				$^{\circ}\text{C}$

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

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



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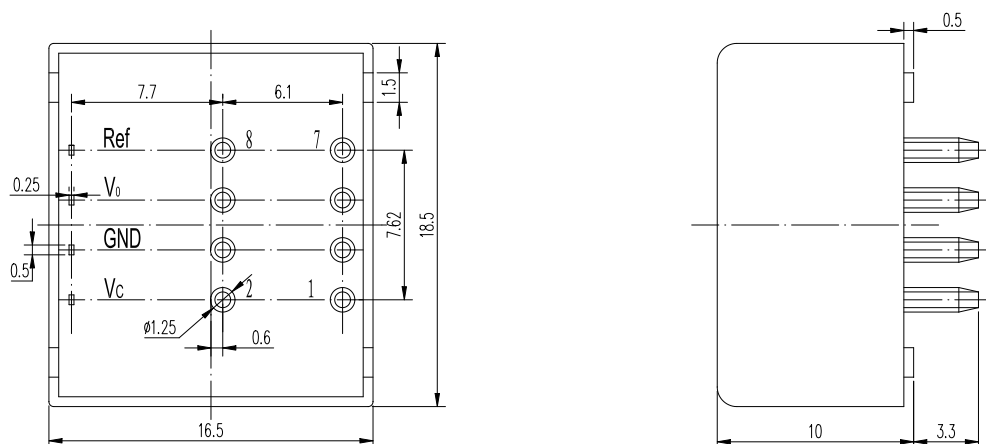
HBC-HXS5 Series Hall Effect Current Sensor

HBC-HXS5 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

	HBC10HXS5	HBC20HXS5	HBC30HXS5	HBC50HXS5	
Rated input current	10	20	30	50	A
Test current range	30	60	90	100	A
Turns	960	1280	960	1200	T
Sampling resistor	15	10	5	7.5	Ω
Rated output voltage				$0.625 \pm 0.5\%$	V
Supply voltage				$+5 \pm 5\%$	V
Reference voltage (VR)				$2.5 \pm 0.5\%$	V
Offset voltage Drift	$-40 \sim +85^{\circ}\text{C}$			$\leq \pm 0.5$	mV/°C
Linearity				$\leq \pm 0.15$	%FS
Accuracy				$\leq \pm 0.7$	%
di/dt				> 50	A/ μS
Response time				< 1	μS
Bandwidth				DC~200	KHZ
Insulation voltage				2.0	KV
Operating Temperature				$-40 \sim +85$	°C
Storage Temperature				$-40 \sim +105$	°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



THE WIRING DIAGRAM

Item	Turns	Rated input current	Rated output voltage Vout[V]	Pri DCR [m Ω]	Pri inductance [uH]	Terminal
Single phase	1	$\pm 10(\pm 20, \pm 30, \pm 50)$	2.5 ± 0.625	0.05	0.025	IN 1 3 5 7 2 4 6 8 OUT
	2	$\pm 5(\pm 10, \pm 15, \pm 25)$	2.5 ± 0.625	0.20	0.1	IN 1 3 5 7 2 4 6 8 OUT
	4	$\pm 2.5(\pm 5, \pm 7.5, \pm 12.5)$	2.5 ± 0.625	1.00	0.4	IN 1 3 5 7 2 4 6 8 OUT

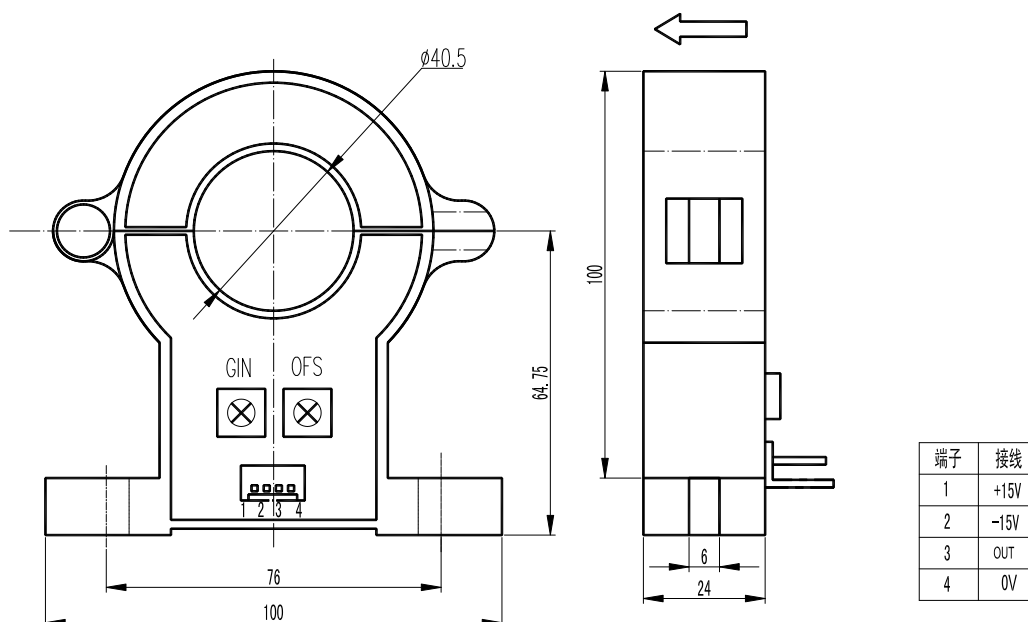
HKC-EKB Series Dismountable Hall Effect Current Sensor

HKC-EKB 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

	HKC200EKB		HKC400EKB		HKC600EKB		
	HKC800EKB		HKC1000EKB		HKC2000EKB		
Rated current	200	400	600	800	1000	2000	A
Measure range	400	800	1200	1600	2000	4000	A
Rated output					4±1%		V
Supply voltage					±15 ±5%		V
offset voltage					20		mV
magnetic offset voltage					±30		mV
offset voltage drift					≤±1		mV/°C
Linearity					≤1		%FS
Response time					≤5		μS
Galvanic isolation	50HZ,1min				2.5		KV
Operating temperature					-40~+85		°C
Storage temperature					-55~+125		°C

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.



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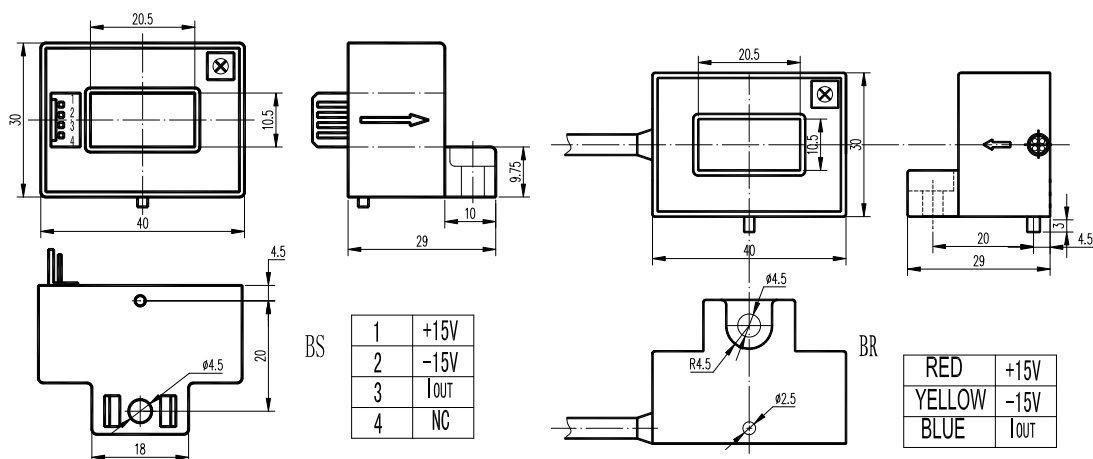
HBC-B Series Hall Effect Current Sensor

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 resistor. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HBC50BS/BR	HBC100BS/BR	HBC200BS/BR	HBC300BS/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.



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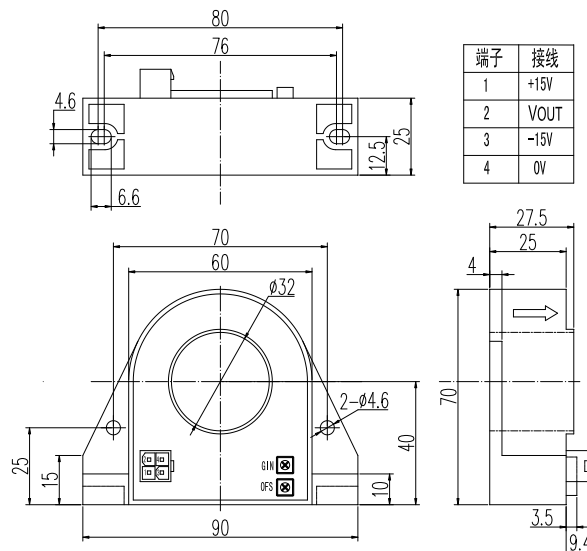
HKC1000SML Series Hall Effect Current Sensor

HKC1000SML 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°C)

	HKC1000SML	
Rated input current(IPN)	1000	A
Current range(IPM)	± 1200	A
Rated output voltage(VOUT)	$10 \pm 1\%$	V
Supply voltage(VC)	$\pm 15 \pm 5\%$	V
Current consumption	$< \pm 25$	mA
Zero offset Voltage	$20 \pm 1\%$	mV
Magnetic dissonance voltage	$\leq \pm 25$	mV
Offset Voltage drift	$\leq \pm 1$	mV / °C
Linearity	$\leq \pm 1$	%FS
Response Time	< 5	μ S
Insulation voltage(50HZ,1min)	3.0	KV
Operating Temperature	$-20 \sim +70$	°C
Storage Temperature	$-40 \sim +105$	°C
Band width (-3dB)	DC $\sim$ 20K	Hz
Load resistance	$\geq 10K$	Ω

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.



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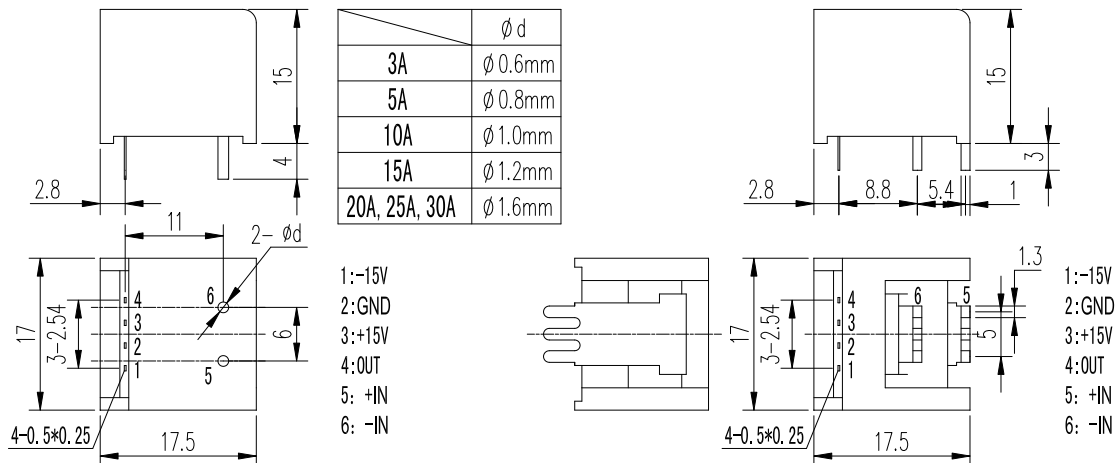
HKCL18P50D15 Series Hall Effect Current Sensor

The HKCL18P50D15 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

	HKCL18 P03D15	HKCL18 P05D15	HKCL18 P10D15	HKCL18 P15D15	HKCL18 P20D15	HKCL18 P25D15	HKCL18 P30D15	HKCL18 P40D15	HKCL18 P50D15	
Rated input current	3	5	10	15	20	25	30	40	50	A
The pri. Line Dia.	0.6mm	0.8mm	1.0mm	1.2mm	1.6mm	1.6mm	1.6mm	1.0*6.3		
Test current range	9	15	30	45	60	60	60	120	120	A
Rated output voltage	$\pm 4 \pm 1\%$									V
Supply voltage	$\pm 15 \pm 5\%$									V
Static power consumption current	$\leq \pm 15$									mA
Offset Current	$\leq \pm 40$									mV
Offset Voltage	$\leq \pm 40$									mV
Offset voltage Drift	$\leq \pm 1.5$									mV/°C
Linearity	$\leq \pm 1$									%FS
Response Time	< 5									μ S
Galvanic Isolation	2.5(50HZ,1min)									KV
Operating Temperature	$-10 \sim +80$									°C
Storage Temperature	$-40 \sim +85$									°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



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.



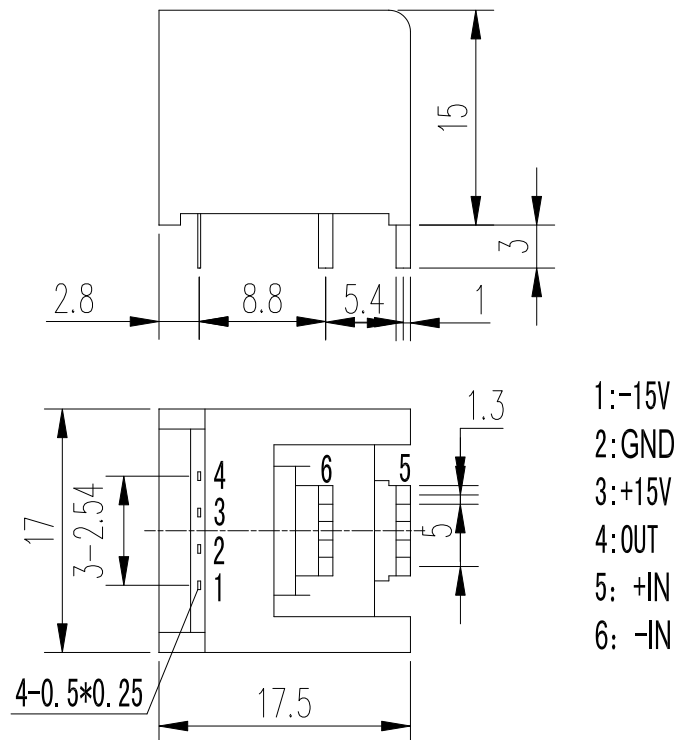
HKC18P-D Series Hall Effect Current Sensor

The HKC18P-D 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

Type	HKC18P40D	HKC18P50D	HKC18P60D	
Rated Current	40	50	60	A
Measure Range	120	150	180	A
Rated Output(V _{OUT})	4±1%			V
Supply Voltage	±15 ±5%			V
Current consumption	≤±15			mA
Offset Voltage(V _{oe})	≤±40			mV
Temperature coefficient Of V _{out}	≤±2			mV/°C
Temperature coefficient Of V _{oe}	≤±1.5			mV/°C
Linearity	≤1			%FS
Response Time	≤3			μS
Galvanic Isolation	2.5			KV
Operating Temperature	-10~+80			°C
Storage Temperature	-25~+80			°C

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

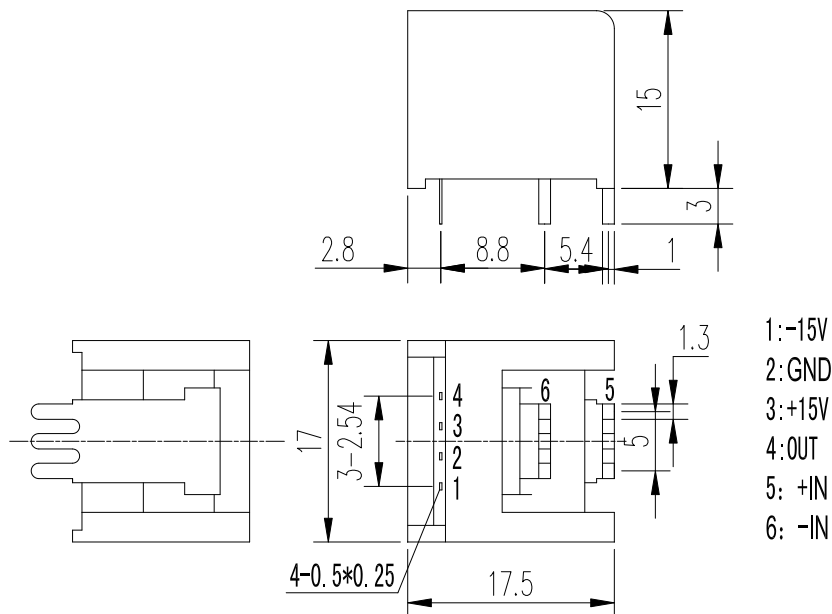
HKC18P-D15 Series Hall Effect Current Sensor

HKC18P-D15 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

	HKC18P40D15	HKC18P50D15	HKC18P60D15	
Rated input current	40	50	60	A
Test current range	120	150	180	A
Rated output voltage	$\pm 4 \pm 1\%$			V
Supply voltage	$\pm 15 \pm 5\%$			V
Consumption current	≤ 15			mA
Zero offset current	$\leq \pm 40$			mV
Magnetic offset voltage	$\leq \pm 40$			mV
Offset voltage Drift	$\leq \pm 1.5$			mV/°C
Linearity	$\leq \pm 1$			%FS
Response time	< 5			μ S
Insulation voltage	(50HZ,1min),2.5			KV
Operating Temperature	$-10 \sim +80$			°C
Storage Temperature	$-40 \sim +85$			°C

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

HKC2000F Hall-effect Current Sensor Series

HKC2000F 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	HKC200FA	HKC400FA	HKC800F	HKC100F	HKC2000F	
I_{PN}	Primary nominal input current	200	400	800	1000	2000	A
I_P	Measuring primary current range	400	800	1600	2000	3000	A
V_{SN}	Nominal output voltage	4±1%					V
V_C	Supply voltage	±12~±15 (±5%)					V
I_C	Current loss	$V_C=±15V$ 20					m A
V_d	Insulation voltage	5KV AC/50Hz/1min					

Dynamic characteristics

ε_L	Linearity	≤ 1		%FS
V_0	Offset voltage	$T_A=25^{\circ}C$	± 15	mV
V_{OM}	Residual voltage	$I_{PN} \rightarrow 0$	± 30	mV
V_{OT}	Offset voltage temperature drift	$I_P=0$ $T_A=-10\sim +70^{\circ}C$	± 1	mV/ $^{\circ}C$
T_R	Response time	≤ 5		μs
f	Band width (-3dB)	DC~20		KHz

Generic characteristics

T_A	Operation temperature	-40~ +85				°C
T_S	Storage temperature	-55~ +125				°C
R_L	Load resistance	≥10				KΩ
	Standard					

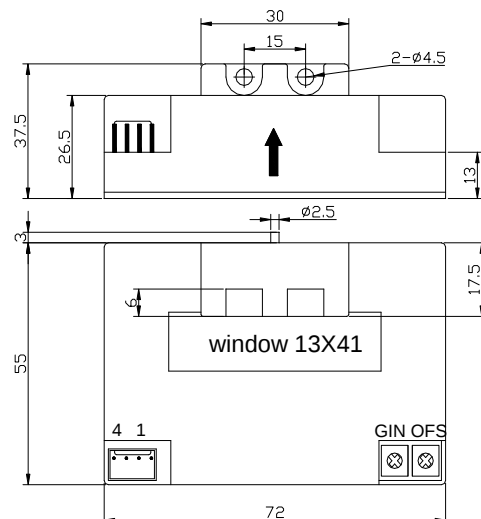
Advantages

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

Typical applications

- ◆ overload protection
- ◆ electric welding equipment for the control of the welding current
- ◆ UPS
- ◆ energy control system
- ◆ switching power supplies

package outline (mm)



Elucidation:

- 1: +15V
- 2: -15V
- 3: Vout
- 4: 0V
- OFS: zero adjustment

HKC3000KF2 Hall-effect Current Sensor Series

HKC3000KF2 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	HKC600KF2	HKC1000H	HKC1500H	HKC2000KF2	HKC3000KF2	
I_{PN}	Primary nominal input current	600	1000	1500	2000	3000	A
I_P	Measuring primary current range	0~±1200	0~±2000	0~±3000	0~±3000	0~±3500	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	6KV AC/50Hz/1min					

Dynamic characteristics

ϵ_L	Linearity	<1		%FS
V_0	Offset voltage	$T_A=25^{\circ}C$	< ± 15	mV
V_{OM}	Residual voltage	$I_{PN} \rightarrow 0$	< ± 30	mV
V_{OT}	Offset voltage temperature drift	$I_P=0$ $T_A=-25 \sim +85^{\circ}C$	< ± 0.5	mV/ $^{\circ}C$
T_R	Response time	<7		μs
f	Band width (-3dB)	DC~20		KHz

Generic characteristics

T _A	Operation temperature	-40~+85		°C
T _S	Storage temperature	-55~+125		°C
R _L	Load resistance	T _A =25°C	≥10K	KΩ
	Standard			

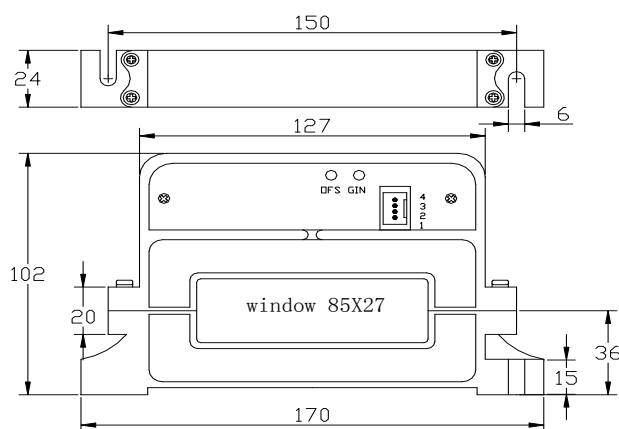
Advantages

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

package outline (mm)

Typical applications

- ◆ overload protection
- ◆ electric welding equipment for the control of the welding current
- ◆ UPS
- ◆ energy control system
- ◆ switching power supplies



Elucidation:

1: +15V

2: -15V

3: Vout

4: 0V

OFS: zero adjustment

GIN: gain adjustment

HKC2000K Hall-effect Current Sensor Series

HKC2000K 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	HKC400K	HKC600K	HKC800K	HKC1000K	HKC2000K	
I_{PN}	Primary nominal input current	400	600	800	1000	2000	A
I_P	Measuring primary current range	0~±800	0~±1200	0~±1600	0~±2000	0~±3000	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					m A
V_d	Insulation voltage	6KV AC/50Hz/1min					

Dynamic characteristics

ϵ_L	Linearity	<1				%FS
V_0	Offset voltage	$T_A=25^\circ C$ <±20				mV
V_{OM}	Residual voltage	$I_{PN} \rightarrow 0$ <±30				mV
V_{OT}	Offset voltage temperature drift	$I_P=0$ $T_A=-25 \sim +85^\circ C$ <±0.5				mV/°C
T_R	Response time	≤7				μs
f	Band width (-3dB)	DC~20				KHz

Generic characteristics

T_A	Operation temperature	-40~+85				°C
T_S	Storage temperature	-55~+125				°C
R_L	Load resistance	$T_A=25^\circ C$ ≥10K				Ω
	Standard					

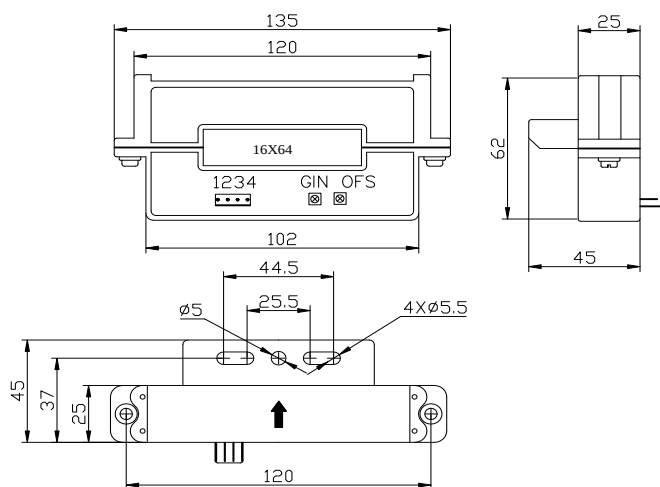
Advantages

- ◆ insulation between input and output
- ◆ no insertion loss
- ◆ removable construction being easy to installation

Typical applications

- ◆ alternating current frequency conversion timing system
- ◆ UPS
- ◆ Welding machine system
- ◆ switching power supplies(SMPS)

package outline (mm)



Usage elucidation:

- 1、The sensor connects the line according to the structural graph declaration, put the measured current through the magnetic core hole , then you can detect out the correspondent voltage according to the measured current from the output.(note : incorrect connection may lead to the damage of the sensor)
- 2、The output amplitude of the sensor can do some adequate adjustment according to the customer's demands.
- 3、When the measured current flows along the sensor's arrowhead direction, the output gains the synchronism voltage.
- 4、When the measured current fills the aperture, it can gain optimal dynamic characteristics

Elucidation:

- 1: +15V 2: -15V 3: Vout 4: 0V
OFS: zero adjustment GIN: gain adjustment



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

	HKC200LBP/4V	
Rated input current	±200	A
Test current range	±500	A
Rated output voltage	±4 ±1%	V
Supply voltage	±15 ±5%	V
Offset voltage	≤±30	mV
Magnetic offset voltage	±25	mV
Rated output voltage Drift	≤±2	mV/°C
Offset voltage Drift	≤±1	mV/°C
Linearity	≤±1	%FS
Response time	≤5	μS
Insulation voltage(50HZ,1min)	2.5	KV
Operating Temperature	-20~+85	°C
Storage Temperature	-25~+105	°C

端子	接线
1	+15V
2	-15V
3	OUT
4	0V

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



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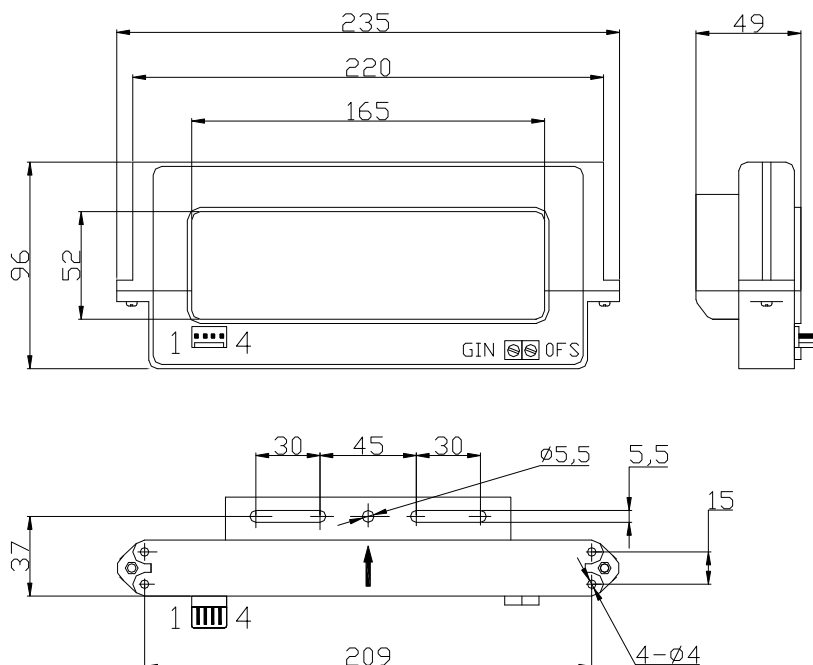
HKC-*Y1 Series Split-core Hall Effect Current Sensor

The HKC-*Y1 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.

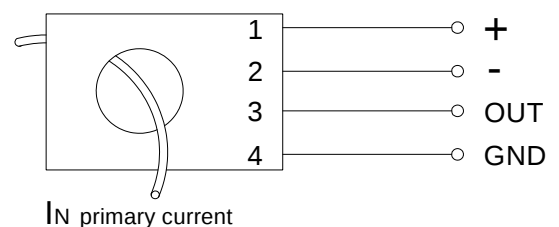
Specifications: Open loop Hall current sensor, Nominal current 2000 10000A RMS for measuring of currents: AC/DC/pulsed

	Type	HKC-2000Y1	HKC-3000Y1	HKC-5000Y1	HCK-10000Y1
I_N	Nominal current (RMS)	2000A	3000A	5000A	10,000A
I_P	Measuring range	0...±3000A	0...±4500A	0...±7500A	0...±15,000A
V_M	Output voltage °C	Nominal output voltage ±4V, for primary nominal current I_N			
X	Accuracy (Ta =+25 °)	. I_N ±1.0%			
Vc	Supply voltage	±12 15V (±5%)			
Ic	Current consumption	25mA			
Vi	Isolation voltage °C	Between primary and secondary circuit: 5KV RMS/50Hz/1min.			
Voff	Offset voltage (Ta =+25 °)	±30mV max, for primary current $I_N=0$			
Td	Temperature drift	±1mV/ Max (-10 +85 °)			
L	Linearity	≤1%			
Tr	Response time	≤10μS			
	di/dt	.....			
f	Frequency bandwidth	0 20KHz			
RL	Load resistance	≥10KΩ °C			
Ta	Operating temperature	-10°C...+85°C			
Ts	Storage temperature	-40 +85			
Rs	Secondary resistance	.....			
	Primary resistance	.....			
W	Weight	800g			

Dimensions (mm):



Connection:



Secondary terminals: ...

Terminal 1: supply voltage +12V... 15V

Terminal 2: supply voltage -12V 15V

Terminal 3: output

Terminal 4: ground (GND)

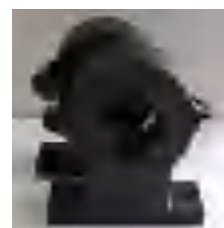


Notes:

Output V_M is positive, when the primary current flows in the direction of the arrow.

OFS: offset adjust; GIN: gain adjust

HKC2105-20 Series Open Loop Mode Dismountable Hall Effect Current Transmitter



The HKC2105-20 Series dismountable current transmitter is a 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(Ta=25°C±5°C)

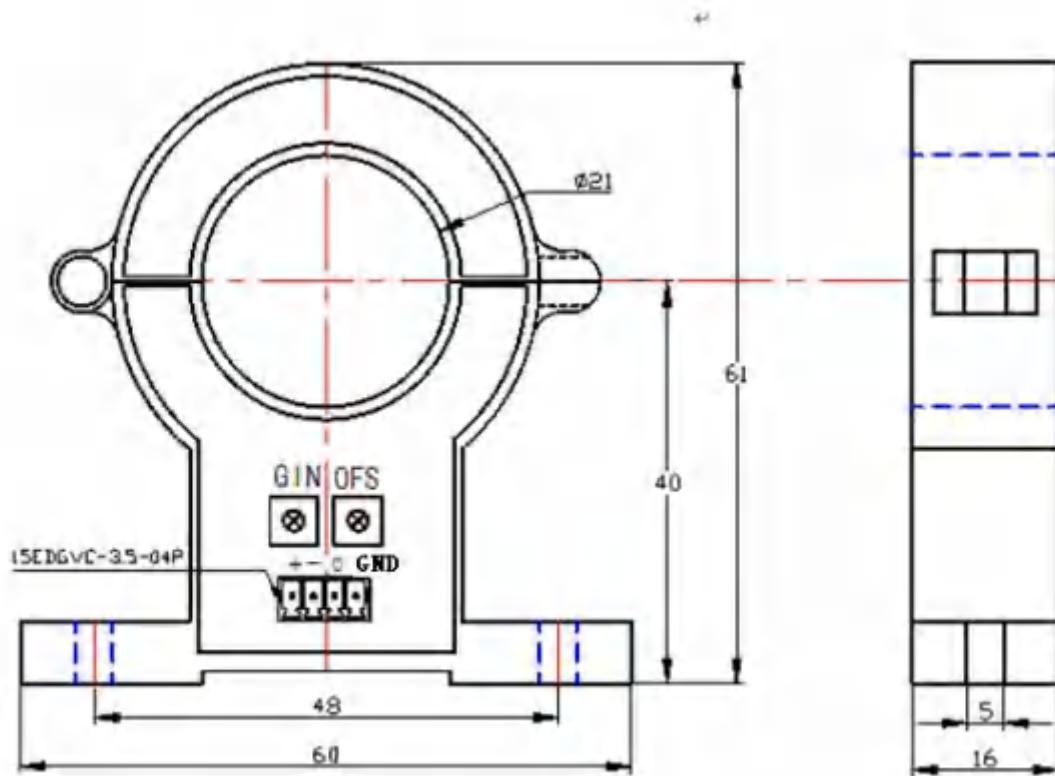
Type Parameter	HKC2105-20					Unit
Rated current(I _{pn})	±50	±100	±200	±400	±500	A
Measuring range(I _p)	±100	±200	±400	±800	±1000	A
Rated output (I _o)	@I _p =I _{pn} DC 10±1.0%					V
Supply voltage	±12V~±15V±5%, or +24V					V
Offset drift	@ -40~+85°C ≤±0.5					mV/°C
Linearity	@I _p =I _{pn} ≤1					%FS
Response time	≤200					mS
Bandwidth	0~1000					HZ
Galvanic isolation	2.5@ 50HZ,AC,1min					KV

Applications

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

HKC2105-20 Series Open Loop Mode Dismountable Hall Effect Current Transmitter

Mechanical dimension(for reference only)



Remarks:

1. All dimensions are in mm.
2. General tolerance $\pm 1\text{mm}$

Directions for use

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

Standards

- UL94-V0.
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

HKC2105-20 Series Open Loop Mode Dismountable Hall Effect Current Transmitter

General data

	Value	Unit	Symbol
Operating temperature	-40 to +85	°C	TA
Storage temperature	-40~+125	°C	TS
Mass(approx)	68	g	M

Characteristics chart

Effects of impulse noise



↔ (Output voltage)

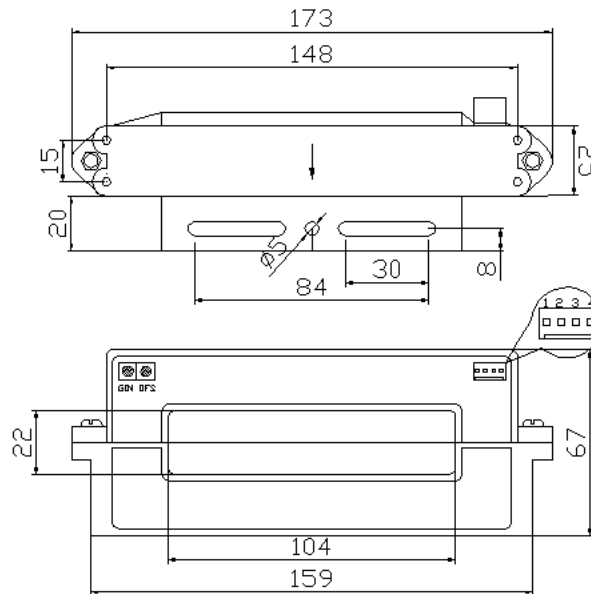
HKC-KB Series Hall removable current sensors

HKC-KB series Hall removable current sensors are insulated between the primary and secondary parts and can be used to measure DC, AC and pulse currents.

Electrical parameters

	HKC500KB	HKC1000KB	HKC2000KB	HKC3000KB	HKC4000KB	A
Rated input current	500	1000	2000	3000	4000	
Current range	1000	2000	4000	4500	5000	A
Rated output voltage	4±1%					V
Supply voltage	±12~±15 ±5%					V
Offset voltage	≤±30	≤±20				mV
Magnetic offset voltage	±30					mV
Offset voltage drift	≤±1.5	≤±1				mV/°C
linearity	≤1					%FS
The response time	≤10					μS
Insulation voltage (50Hz,1min)	3					KV
Working temperature	-20~+85					°C
Storage temperature	-40~+105					°C

The structural parameters



1:+15V 2:-15V 3:VOUT 4:0V

OFS:Zero adjustment

GIN:Amplitude adjustment

Directions for use

- 1.When the current to be measured passes through the sensor, the voltage can be measured at the output end. (Note: Incorrect wiring may cause sensor damage)
- 2.The sensor's output amplitude can be adjusted appropriately according to the user's needs.
- 3.Sensors with different rated input current and output voltage can be customized according to user requirements.

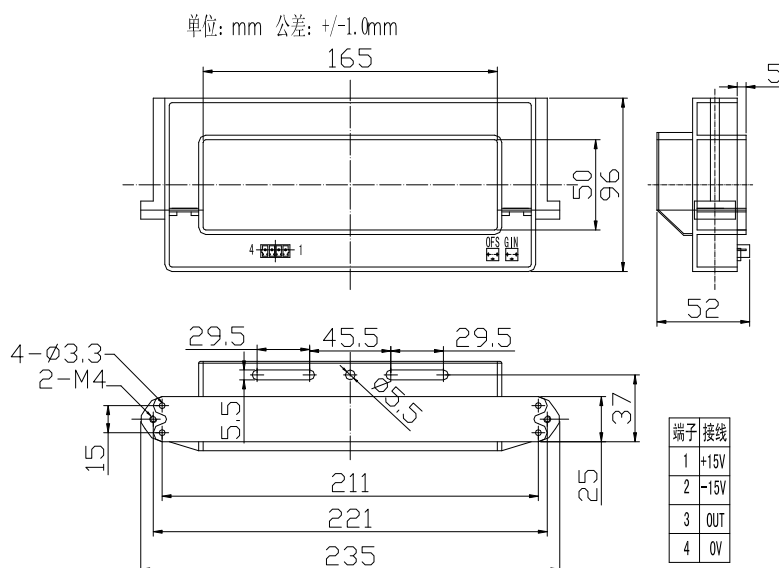
HKC5000HOP Series Hall removable current sensors

HKC5000HOP Series Hall removable current sensors are insulated between primary and secondary for measuring DC, AC and pulse currents.

Electrical parameters

	HKC2000HOP	HKC3000HOP	HKC4000HOP	HKC5000HOP	
Rated input current	2000	3000	4000	5000	A
Current range	±1600	±4000	±5000	±6000	A
Rated output voltage	±4±1%				V
supply voltage	±15 ±5%				V
Offset voltage	≤±30	≤±20			mV
Offset voltage	≤±40	≤±30			mV
Offset voltage drift	≤±1.5	≤±1.0			mV/°C
linearity	≤±1				%FS
The response time	≤10				μS
Insulation voltage (50Hz,1min)	6				KV
Working temperature	-20~+70				°C
Storage temperature	-25~+85				°C

The structural parameters



Directions for use

1. When the current to be measured passes through the sensor, the voltage can be measured at the output end. (Note: Incorrect wiring may cause sensor damage)
2. The sensor's output amplitude can be adjusted appropriately according to the user's needs
3. Sensors with different rated input current and output voltage can be customized according to user requirements

HKC-B Hall-effect Current Sensor Series

HKC-B 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	HKC050B	HKC100B	HKC200B	HKC400B	HKC500B	HKC600B	
I_{PN}	Primary nominal input current	50	100	200	400	500	600	A
I_P	Measuring primary current range	150	300	600	900	900	900	A
V_{SN}	Nominal output voltage	4±1%						V
V_C	Supply voltage	±12~±15 (±5%)						V
I_C	Current loss	$V_C=±15V$ 20						mA
V_d	Insulation voltage	2.5KV AC/50Hz/1min						

Dynamic characteristics

ε_L	Linearity	±1						%FS
V_0	Offset voltage	$T_A=25^{\circ}C$ ±25						mV
V_{OM}	Residual voltage	$I_P \rightarrow 0$ ±25						mV
V_{OT}	Offset voltage temperature drift	$I_P=0$ $T_A=-10 \sim +70^{\circ}C$ ±0.5						mV/°C
T_R	Response time	≤3						μs
f	Band width (-3dB)	DC~20						KHz

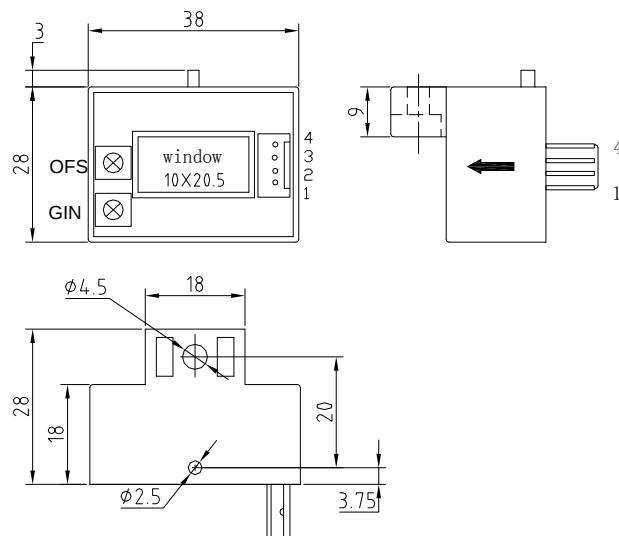
Generic characteristics

T_A	Operation temperature	-40~+85						°C
T_S	Storage temperature	-55 ~+125						°C
R_L	Load resistance	≥10						KΩ
	Standard							

Advantages

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

package outline (mm)



Typical applications

- ◆ welding machine
- ◆ electric welding equipment for the control of the welding current
- ◆ frequency conversion timing system
- ◆ UPS ,switching power supplies

Elucidation: 1: +15V 2: -15V 3: Vout 4: 0V OFS: zero adjustment GIN: gain adjustment

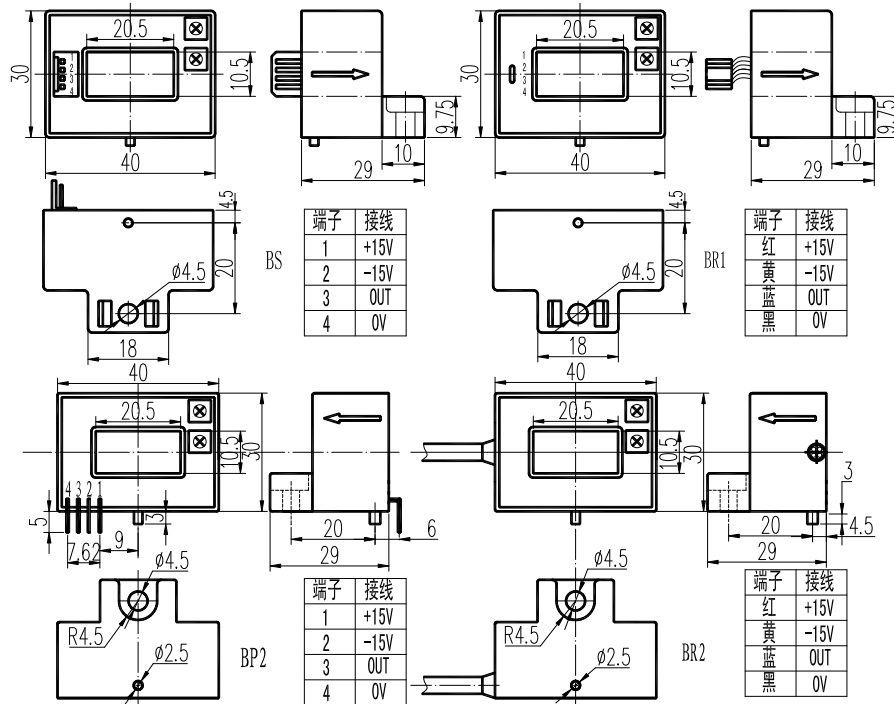
HKC-BS Series Hall Effect Current Sensor

HKC-BS 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

	HKC50BS/BR/BP2 HKC300BS/BR/BP2		HKC75BS/BR/BP2 HKC400BS/BR/BP2		HKC100BS/BR/BP2 HKC500BS/BR/BP2		HKC200BS/BR/BP2 HKC600BS/BR/BP2		
Rated input current	50	75	100	200	300	400	500	600	A
Test current range	150	225	300	600	900	900	900	900	A
Rated output voltage	4±1%								V
Supply voltage	±15 ±5%								V
Offset voltage	≤±25								mV
Magnetic offset voltage	≤±30		≤±25						mV
Offset voltage Drift	≤±1.0		≤±0.5						mV/°C
Linearity	≤±1								%FS
Response time	≤3								μS
Insulation voltage	50HZ,1min,2.5								KV
Operating Temperature	-40~+85								°C
Storage Temperature	-40~+105								°C

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



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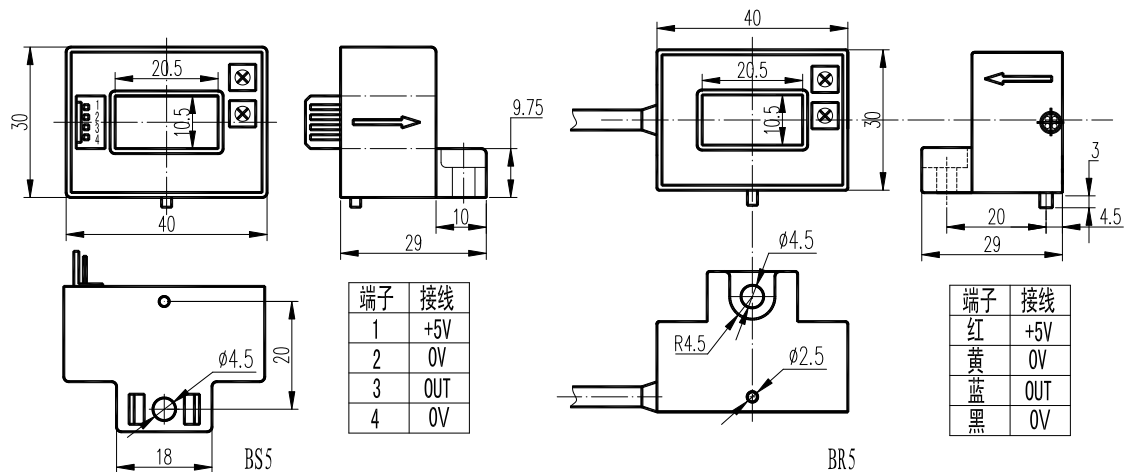
HKC-BS5/BR5 Series Hall Effect Current Sensor

HKC-BS5/BR5 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

	HKC50BS5/BR5 HKC400BS5/BR5		HKC100BS5/BR5 HKC500BS5/BR5		HKC200BS5/BR5 HKC600BS5/BR5		HKC300BS5/BR5		
Rated input current	50	100	200	300	400	500	600	A	
Test current range	100	200	400	600	800	900	900	A	
Rated output voltage	0.625±1%							V	
Zero residual voltage	2.5±0.5%							V	
Supply voltage	+5±5%/+12±5%							V	
Offset voltage	≤±25							mV	
Magnetic offset voltage	≤±20		≤±15					mV	
Offset voltage Drift	≤±2.0		≤±1					mV/°C	
Linearity	≤±1							%FS	
Response time	≤3							μS	
Insulation voltage	50HZ,1min,2.5							KV	
Operating Temperature	-40~+85							°C	
Storage Temperature	-40~+105							°C	

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



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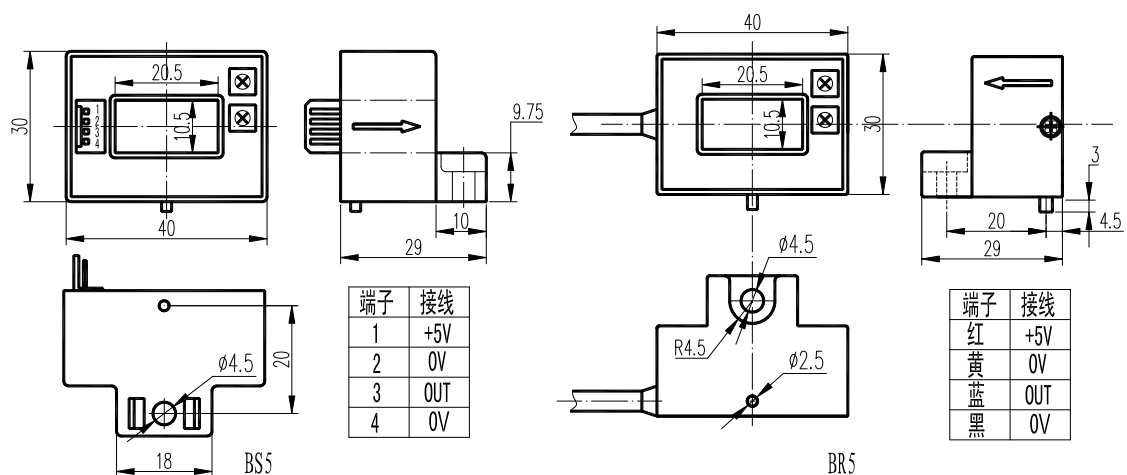
HKC-BS5/BR5 Series Hall Effect Current Sensor

HKC-BS5/BR5 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°C)

	HKC50BS5/BR5 HKC300BS5/BR5		HKC100BS5/BR5 HKC400BS5/BR5 HKC600BS5/BR5		HKC200BS5/BR5 HKC500BS5/BR5			
Rated input current(IPN)	50	100	200	300	400	500	600	A
Current range(IPM)	100	200	400	600	800	900	900	A
Rated output voltage(VOUT)					0.625±1%			V
Zero Voltage					2.5±0.5%			V
Supply voltage(VC)					+5±5%/+12±5%			V
Offset Voltage					≤±25			mV
Magnetic dissonance voltage	≤±20				≤±15			mV
Offset Voltage drift	≤±2.0				≤±1			mV/°C
Linearity					≤±1			%FS
Response Time					≤3			μS
Insulation voltage	50HZ,1min				2.5			KV
Operating Temperature					-40～+85			°C
Storage Temperature					-40～+105			°C

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.

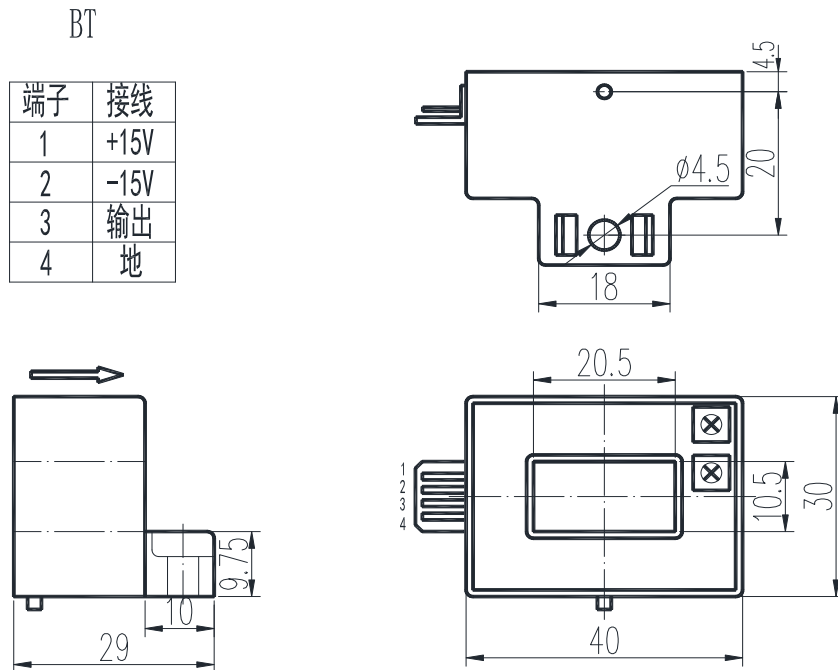
HKC-BT Series Hall Effect Current Sensor

HKC-BT 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

	HKC50 BT	HKC75 BT	HKC100 BT	HKC200 BT	HKC300 BT	HKC400 BT	HKC500 BT	HKC600 BT	
Rated input current	50	75	100	200	300	400	500	600	A
Test current range	150	225	300	600	900	900	900	900	A
Rated output voltage	4±1%								V
Supply voltage	±15 ±5%								V
Offset voltage	25								mV
Magnetic offset voltage	±30		±25						mV
Offset voltage Drift	≤±1.0		≤±0.5						mV/°C
Linearity	≤1								%FS
Response time	≤3								μS
Insulation voltage	50HZ,1min		2.5						KV
Operating Temperature	-40~+85								°C
Storage Temperature	-55~+125								°C

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

HKC-E Hall-effect Current Sensor Series

HKC-E series is a new generation of open 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	HKC-050E	HKC-100E	HKC-200E	HKC-300E	HKC-400E	HKC-500E	
I_{PN}	Primary nominal input current	50	100	200	300	400	500	A
I_P	Measuring primary current range	150	300	600	900	1000	1000	A
V_{SN}	Nominal output voltage	4±1%						V
V_C	Supply voltage	±12~±15 (±5%)						V
I_C	Current loss	$V_C=±15V$ 20						mA
V_d	Insulation voltage	2.5KV AC/50Hz/1min						

Dynamic characteristics

ϵ_L	Linearity	≤1		%FS
V_0	Offset voltage	$T_A=25^\circ C$	±20	mV
V_{OM}	Residual voltage	$I_P \rightarrow 0$	±30	mV
V_{OT}	Offset voltage temperature drift	$I_P=0$ $T_A=-10\sim+70^\circ C$	±1	mV/°C
T_R	Response time	≤3		μs
f	Band width (-3dB)	DC~20		KHz

Generic characteristics

T_A	Operation temperature	-40~+85	°C
T_S	Storage temperature	-55~+125	°C
R_L	Load resistance	≥10	KΩ
	Standard		

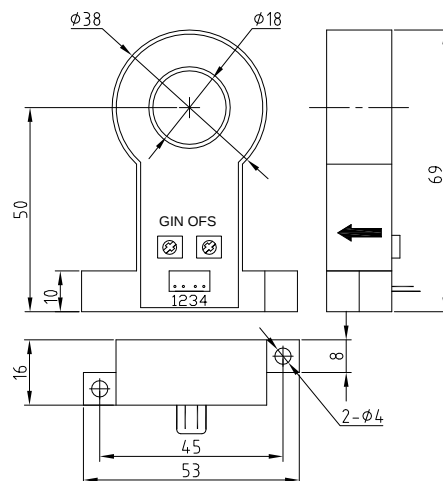
Advantages

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

Typical applications

- ◆ overload protection
- ◆ electric welding equipment for the control of the welding current
- ◆ UPS
- ◆ energy control system
- ◆ switching power supplies

package outline (mm)



Elucidation:

1: +15V

2: -15V

3: V_{out}

4: 0V

OFS: zero adjustment

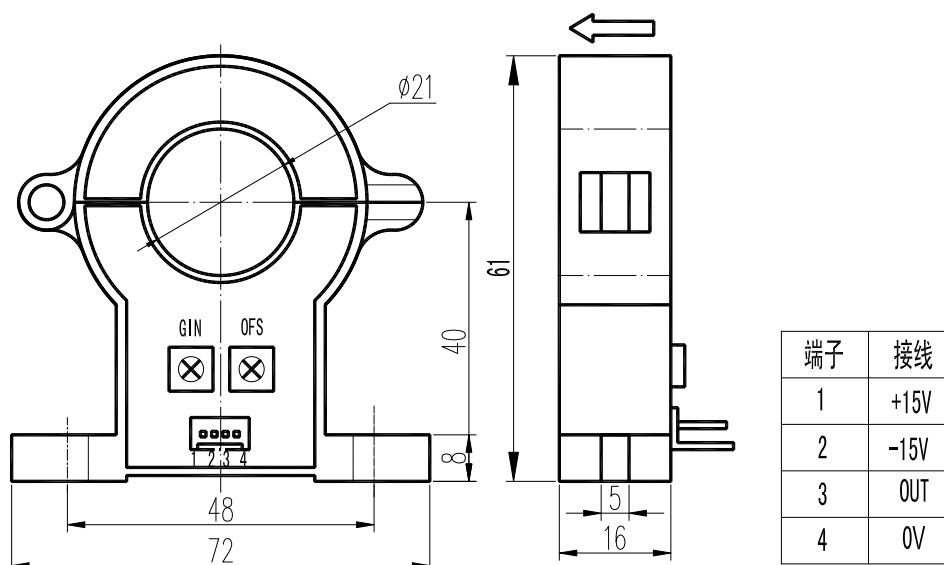
HKC-EKA Series removable Hall Effect Current Sensor

HKC-EKA 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

	HKC100EKA	HKC200EKA	HKC300EKA	HKC400EKA	HKC500EKA	
Rated input current	100	200	300	400	500	A
Test current range	200	400	600	800	1000	A
Rated output voltage	4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±20					mV
Magnetic offset voltage	≤±30		≤±20			mV
Offset voltage Drift	≤±1.5		≤±1			mV/°C
Linearity	≤±1					%FS
Response time	≤5					μS
Insulation voltage	(50HZ,1min)2.5					KV
Operating Temperature	-40~+85					°C
Storage Temperature	-40~+105					°C

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



HKC-EKA Series Hall Effect Current Sensor

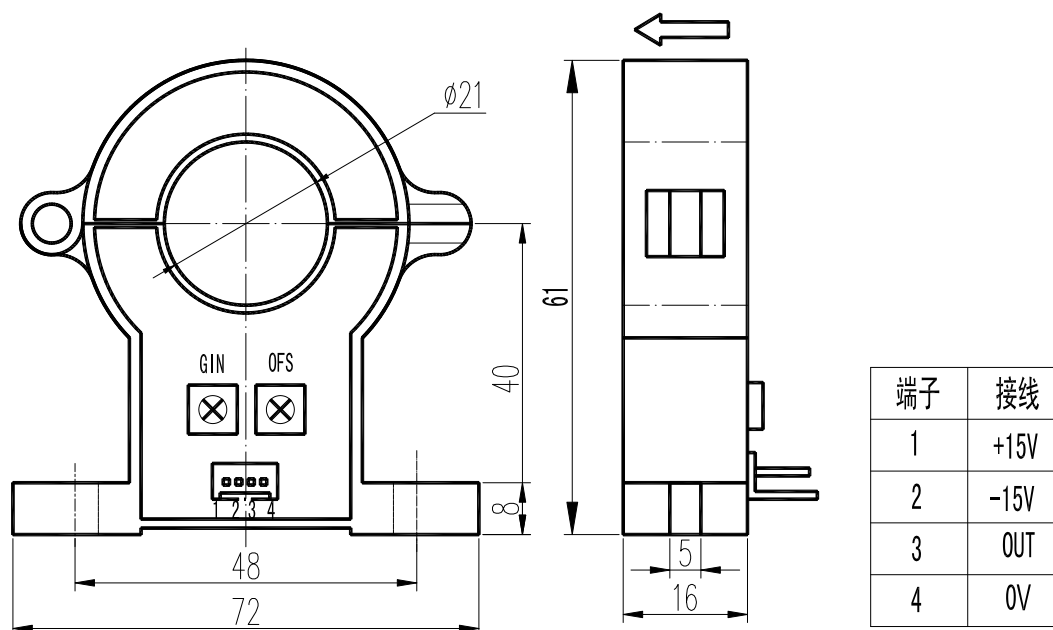
The HKC-EKASDA series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.



ELECTRICAL DATA

	HKC100EKA	HKC200EKA	HKC300EKA	HKC400EKA	HKC500EKA	
Rated input current	100	200	300	400	500	A
Test current range	200	400	600	800	1000	A
Rated output voltage					4±1%	V
Supply voltage					±15 ±5%	V
Offset voltage					≤±20	mV
Magnetic disturbance voltage	≤±30				≤±20	mV
Offset voltage Drift	≤±1.5				≤±1	mV/°C
Linearity					≤±1	%FS
Response Time					≤5	μS
Insulation voltage(50HZ,1min)					2.5	KV
Operating Temperature					-40~+85	°C
Storage Temperature					-40~+105	°C

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.



HKC-EKAD Series Hall Effect Current Sensor

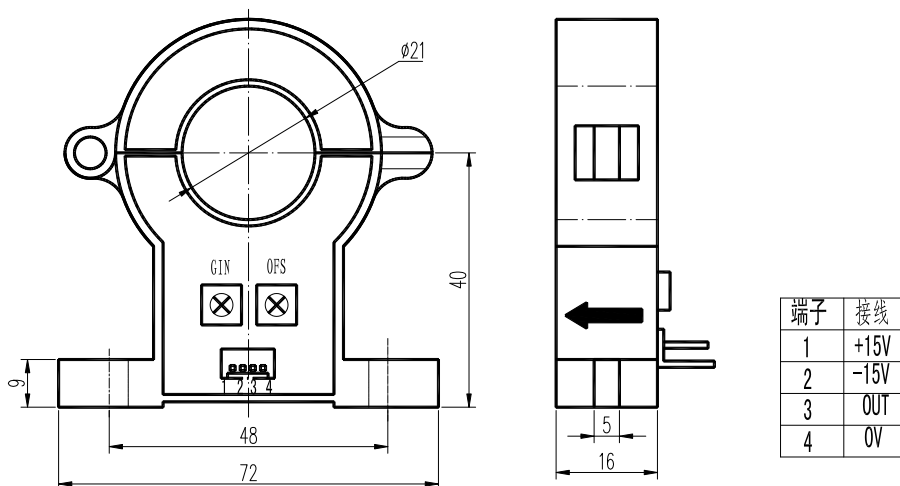
The HKC-EKAD series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.



ELECTRICAL DATA

	HKC20EKAD		HKC50EKAD		HKC100EKAD		
	HKC200EKAD		HKC400EKAD		HKC500EKAD		
Rated input current (AC)	30	100	200	400	500	600	A
Test current range (AC)	60	200	400	800	1000	1000	A
Rated output voltage (DC)						4±1%/5±1%	V
Supply voltage						±15 ±5%	V
Offset voltage						25	mV
Offset voltage Drift						≤±0.5	mV/°C
Linearity						≤1	%FS
Response Time						≤20	mS
bandwidth						20~20000	HZ
Insulation voltage	50HZ,1min					2.5	KV
Operating Temperature						-40~+85	°C
Storage Temperature						-55~+125	°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



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.



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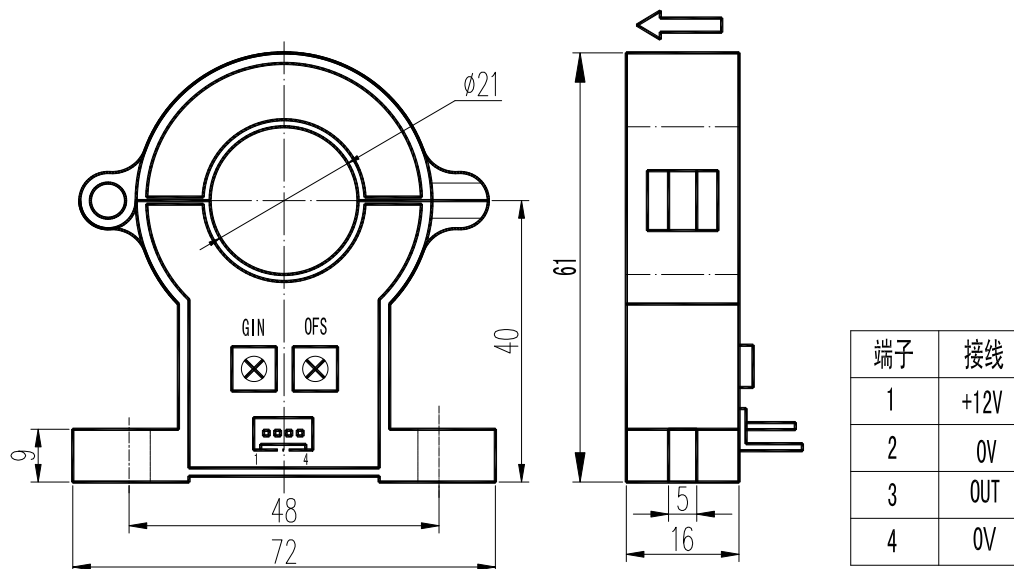
HKC-EKAS12 Series removable Hall Effect Current Sensor

HKC-EKAS12 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°C)

	HKC100EKAS12	HKC200EKAS12	HKC300EKAS12	HKC400EKAS12	HKC500EKAS12	
Rated input current	100	200	300	400	500	A
Current range	200	400	600	800	1000	A
Rated output voltage					2±1%	V
Supply voltage					12±5%	V
Offset Voltage					2.5±1%	V
Magnetic Offset voltage					≤±20	mV
Offset Voltage drift					≤±1	mV/°C
Linearity					≤±1	%FS
Response Time					≤5	μS
Insulation voltage	50HZ,1min					KV
Operating Temperature					-40~+85	°C
Storage Temperature					-40~+105	°C

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.

HKC-EKASDA Series Hall Effect Current Sensor

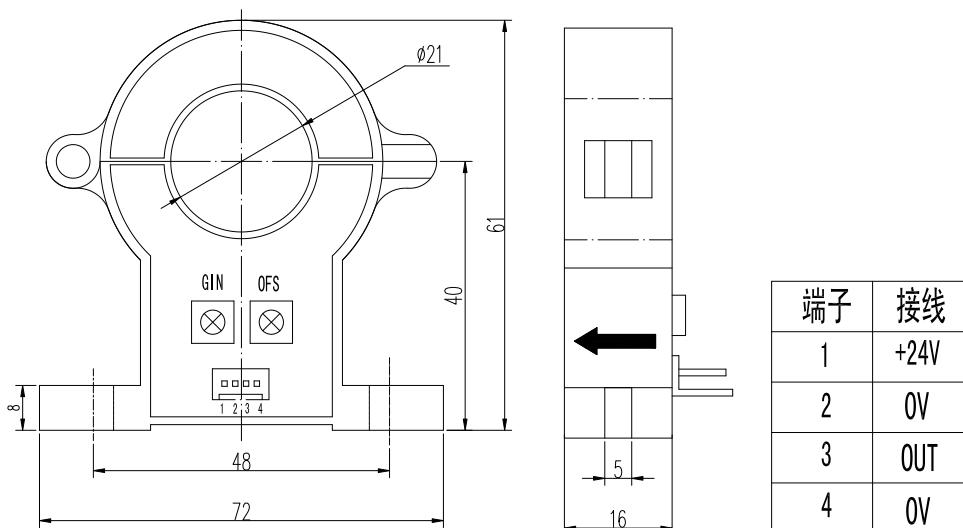
The HKC-EKASDA series current sensor is an open loop device based on the measuring principle of the Hall Effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC currents.



ELECTRICAL DATA

Rated input current	-20A to +20A(DC)/0A to 20A(AC),50-75Hz	A
Rated output current (DC)	4~20±1%	mA
Supply voltage	+24±5%	V
Consumption incl. current loop	<50	mA
Offset Current	4±1%	mA
Offset Current Drift	≤±0.005	mA/°C
Linearity	≤±1	%FS
Response Time	≤20	mS
bandwidth	20~20000	HZ
Insulation voltage	3KV,1min	KV
Operating Temperature	-20~+70	°C
Storage Temperature	-40~+85	°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



使用说明

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.



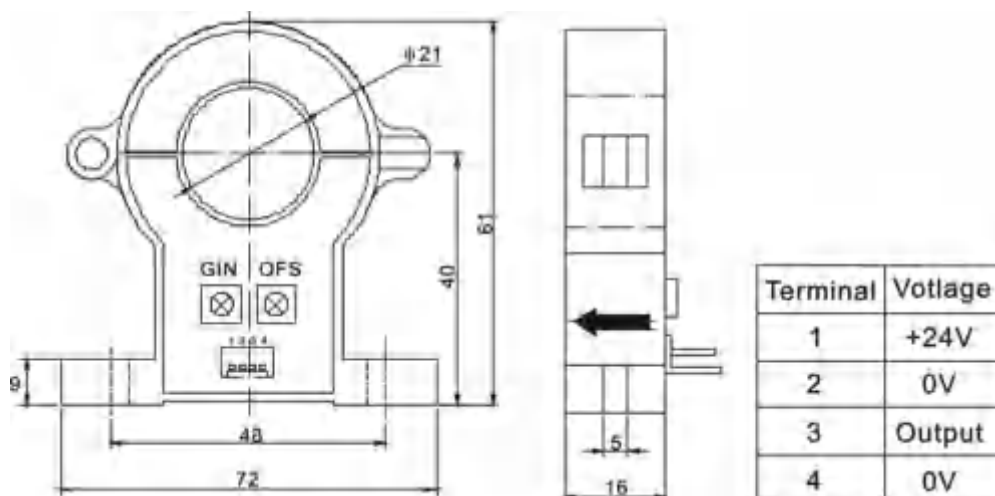
HKC-EKASY Series Hall Effect Current Sensor

The HKC-EKASY 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

	HKC50EKASY	HKC100EKASY	HKC200EKASY	HKC500EKASY	
Rated input current (DC)	±50	±100	±200	±500	A
Measure Current Range (DC)	±75	±150	±300	±750	A
Rated Output Current (DC)	4~20±1.5%		4~20±1%		mA
Supply Voltage				24±5%	V
Offset Current				4±1%	mA
Offset Current Drift				≤±0.02	mA/°C
Linearity				≤±1	%FS
Response Time				≤100	mS
bandwidth				DC	HZ
Insulation voltage	50HZ,1min			2.5	KV
Operating Temperature				-20~+70	°C
Storage Temperature				-25~+85	°C

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.



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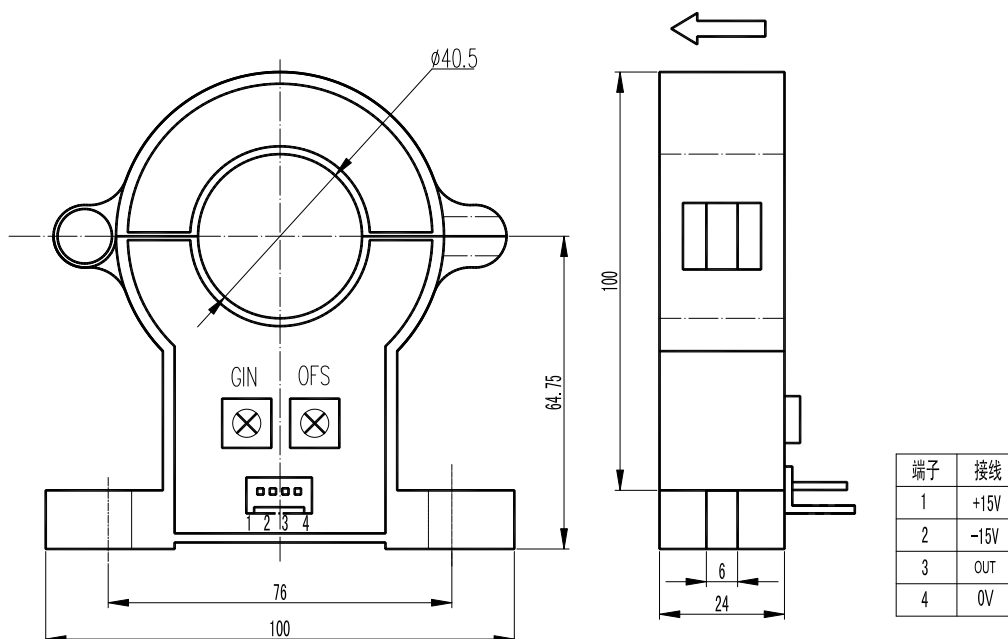
HKC-EKB Series removable Hall Effect Current Sensor

HKC-EKB 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

	HKC200EK B	HKC400EK B	HKC600EK B	HKC800EK B	HKC1000EK B	HKC2000EK B	
Rated input current	200	400	600	800	1000	2000	A
Test current range	400	800	1200	1600	2000	4000	A
Rated output voltage	4±1%						V
Supply voltage	±15±5%						V
Offset voltage	≤±20						mV
Magnetic offset voltage	≤±40		≤±30				mV
Offset voltage Drift	≤±1.5		≤±1				mV/°C
Linearity			≤±1				%FS
Response time	≤5						μS
Insulation voltage	(50HZ,1min),2.5						KV
Operating	-40~+85						°C
Storage Temperature	-40~+105						°C

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



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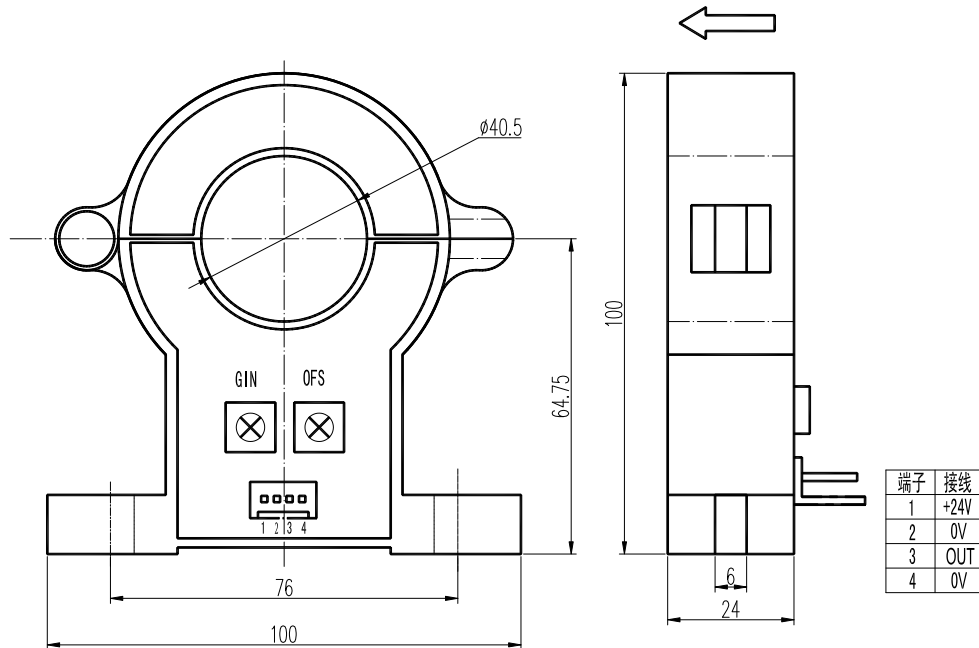
HKC-EKBS12 Series removable Hall Effect Current Sensor

HKC-EKBS12 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°C)

	HKC200EKBS12	HKC400EKBS12	HKC800EKBS12	HKC1000EKBS12	HKC2000EKBS12	
Rated input current	200	400	800	1000	2000	A
Current range	400	800	1600	2000	4000	A
Rated output voltage					2±1%	V
Supply voltage					+12±5%	V
Offset Voltage					2.5±1%	V
Magnetic Offset voltage	≤±40				≤±30	mV
Offset Voltage drift	≤±1.5				≤±1	mV/°C
Linearity					≤±1	%FS
Response Time					≤5	μS
Insulation voltage	(50HZ,1min)				2.5	KV
Operating Temperature					-40~+85	°C
Storage Temperature					-40~+105	°C

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.

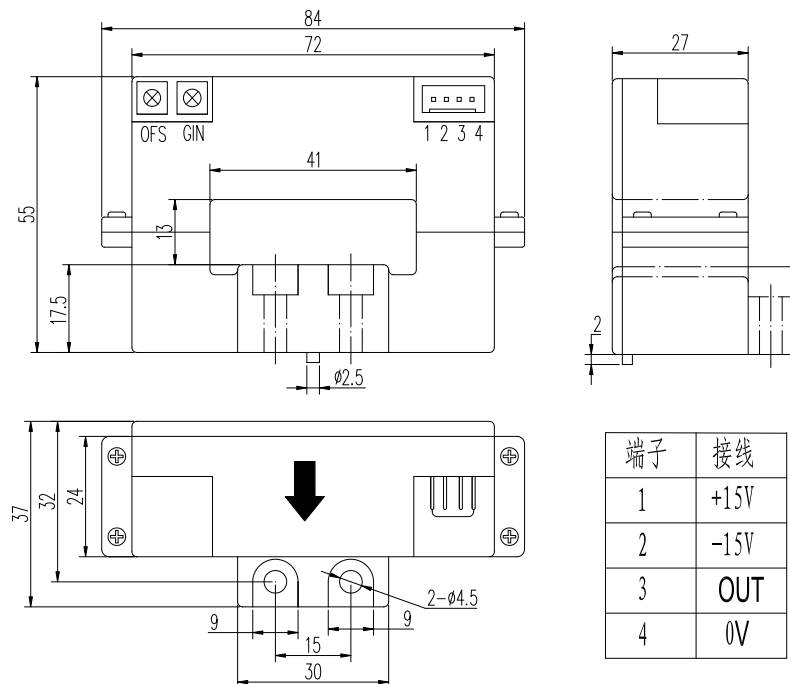
HKC-FK Series Hall Effect Current Sensor

HKC-FK 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℃)

	HKC200FK	HKC400FK	HKC600FK	HKC800FK	HKC1000FK	
Rated input current(IP)	200	400	600	800	1000	A
Test current range	400	800	1200	1600	2000	A
Rated output voltage	4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±25					mV
Magnetic offset voltage	≤±25					mV
Offset voltage Drift	≤±1					mV/℃
Linearity	≤1					%FS
Response time	≤7					μS
Insulation voltage	2.5@(50HZ,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



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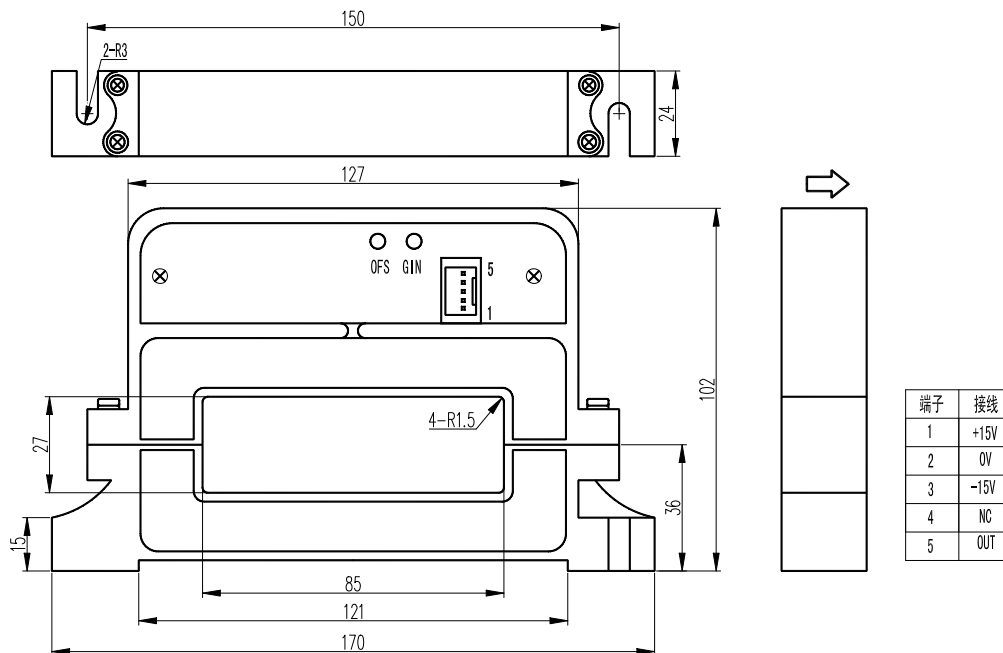
HKC-H Series Hall Effect Current Sensor

HKC-H 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

	HKC600H	HKC1200H	HKC1600H	HKC2000H	HKC3000H	
Rated input current	600	1200	1600	2000	3000	A
Test current range	1200	2400	2400	3000	4500	A
Rated output voltage	4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±25	≤±15				mV
Magnetic offset voltage	≤±40	≤±30				mV
Offset voltage Drift	≤±1.5	≤±1				mV/℃
Linearity	≤±1					%FS
Response time	≤7					μS
Insulation voltage(50HZ,1min)	6					KV
Operating Temperature	-20~+70					℃
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. 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

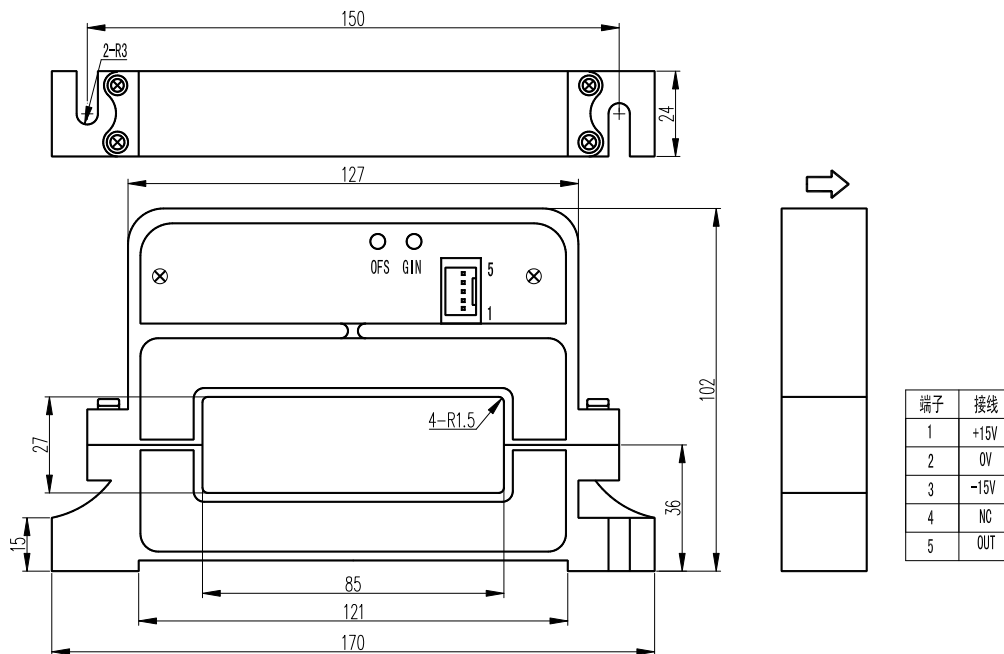
HKC-H Series Hall Effect Current Sensor

HKC-H 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

	HKC600H	HKC1200H	HKC1600H	HKC2000H	HKC3000H	
Rated input current	600	1200	1600	2000	3000	A
Test current range	1200	2400	2400	3000	4500	A
Rated output voltage	4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±25	≤±15				mV
Magnetic offset voltage	≤±40	≤±30				mV
Offset voltage Drift	≤±1.5	≤±1				mV/°C
Linearity	≤±1					%FS
Response time	≤7					μS
Insulation voltage(50HZ,1min)	6					KV
Operating Temperature	-20~+70					°C
Storage Temperature	-40~+85					°C

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



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

	HKC600H	HKC1200H	HKC1800H	HKC2400H	HKC3000H	
Rated input current	600	1200	1800	2400	3000	A
Test current range	1200	2400	2700	3600	4500	A
Rated output voltage	4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±25	≤±15				mV
Magnetic offset voltage	≤±40	≤±30				mV
Offset voltage Drift	≤±1.5	≤±1				mV/°C
Linearity	≤±1					%FS
Response time	≤7					μS
Insulation voltage(50HZ,1min)	6					KV
Operating Temperature	-20~+70					°C
Storage Temperature	-40~+85					°C

Technical drawing of the HX-1000 module, showing dimensions and pinout information.

Dimensions:

- Top View: 150 (Length), 24 (Width), 127 (Internal Length), 2-R3 (Corner Radius).
- Side View: 102 (Height), 36 (Mounting Flange Height), 27 (Mounting Flange Width), 15 (Bottom Flange Height).
- Front View: 170 (Total Width), 121 (Internal Width), 85 (Internal Width), 4-R1.5 (Corner Radius).

Pinout Table:

端子	接线
1	+15V
2	0V
3	-15V
4	NC
5	OUT

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



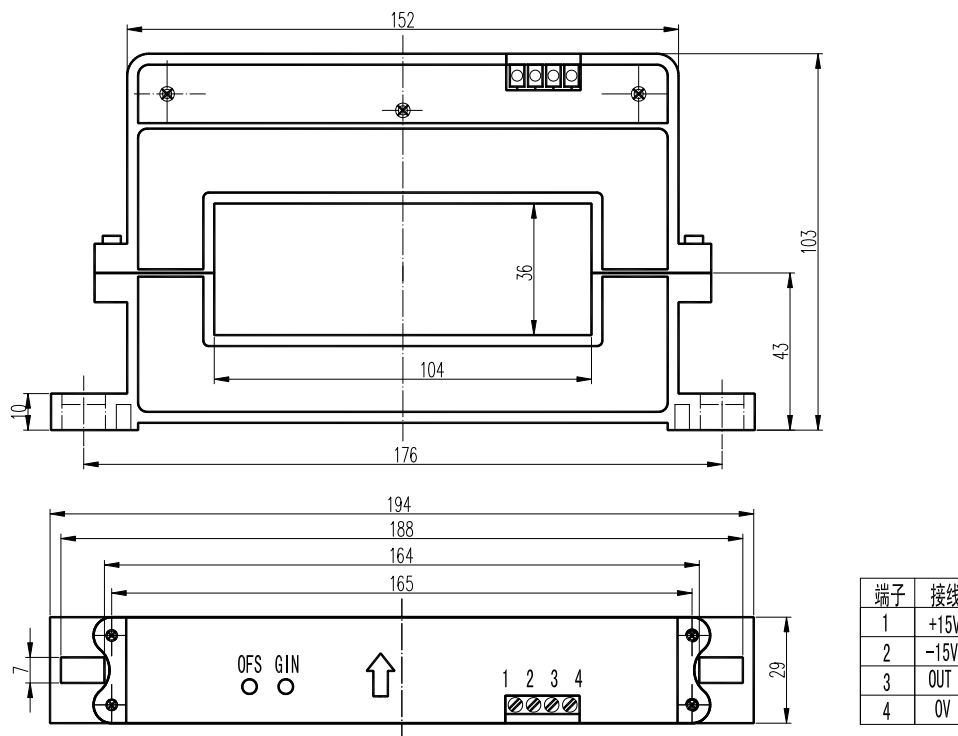
HKC-HA Series Hall Effect Current Sensor

The HKC-HA 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

	HKC800HA	HKC1000HA	HKC2000HA	HKC3000HA	HKC5000HA	
Rated Current	800	1000	2000	3000	5000	A
Measure Range	1600	2000	3000	4500	7500	A
Rated Output				4±1%		V
Supply Voltage				±15±5%		V
Offset Voltage				≤+15		mV
Magnetic Offset Voltage				≤±30		mV
Offset Voltage Drift				≤±0.5		mV/°C
Linearity				≤±1		%FS
Response Time				≤7		μS
Galvanic Isolation				6		KV
Operating Temperature				-20~+70		°C
Storage Temperature				-40~+85		°C

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



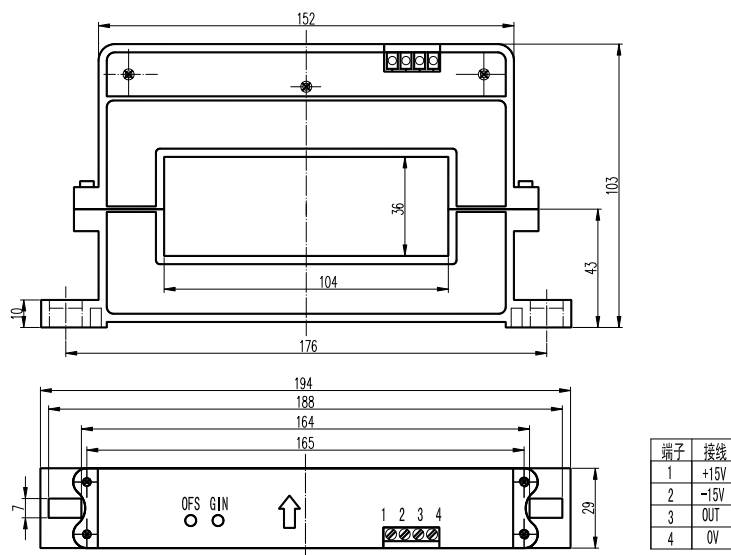
HKC-HA Series Split-core Hall Effect Current Sensor

The HKC-HA 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

	HKC800HA	HKC1000HA	HKC2000HA	HKC4000HA	HKC5000HA	
Rated Current	800	1000	2000	4000	5000	A
Measure Range	1600	2000	3000	6000	7500	A
Rated Output voltage			4±1%			V
Supply Voltage						V
Offset Voltage			±15			mV
Magnetic Offset Voltage			±30			mV
Offset Voltage Drift			±0.5			mV/°C
Linearity			±1			%FS
Response Time			≤7			μS
Galvanic Isolation (50HZ,1min)			6			KV
Operating Temperature			-20~+70			°C
Storage Temperature			-40~+85			°C

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.



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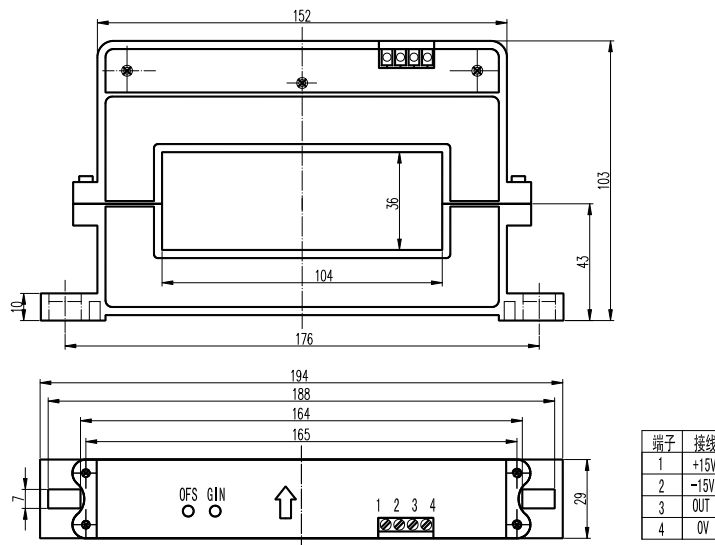
HKC-HA Series Split-core Hall Effect Current Sensor

The HKC-HA 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

	HKC800HA	HKC1000HA	HKC2000HA	HKC3000HA	HKC5000HA	
Rated Current	800	1000	2000	3000	5000	A
Measure Range	1600	2000	3000	4500	7500	A
Rated Output voltage	0-4V/ 0-5V/ 0-10V $\pm 1\%$					V
Supply Voltage	$\pm 12/\pm 15 \pm 5\%$					V
Offset Voltage	$\leq \pm 15$					mV
Magnetic Offset Voltage	$\leq \pm 30$					mV
Offset Voltage Drift	$\leq \pm 0.5$					mV/°C
Linearity	$\leq \pm 1$					%FS
Response Time	≤ 7					μS
Galvanic Isolation (50HZ,1min)	6					KV
Operating Temperature	$-20 \sim +70$					°C
Storage Temperature	$-40 \sim +85$					°C

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.



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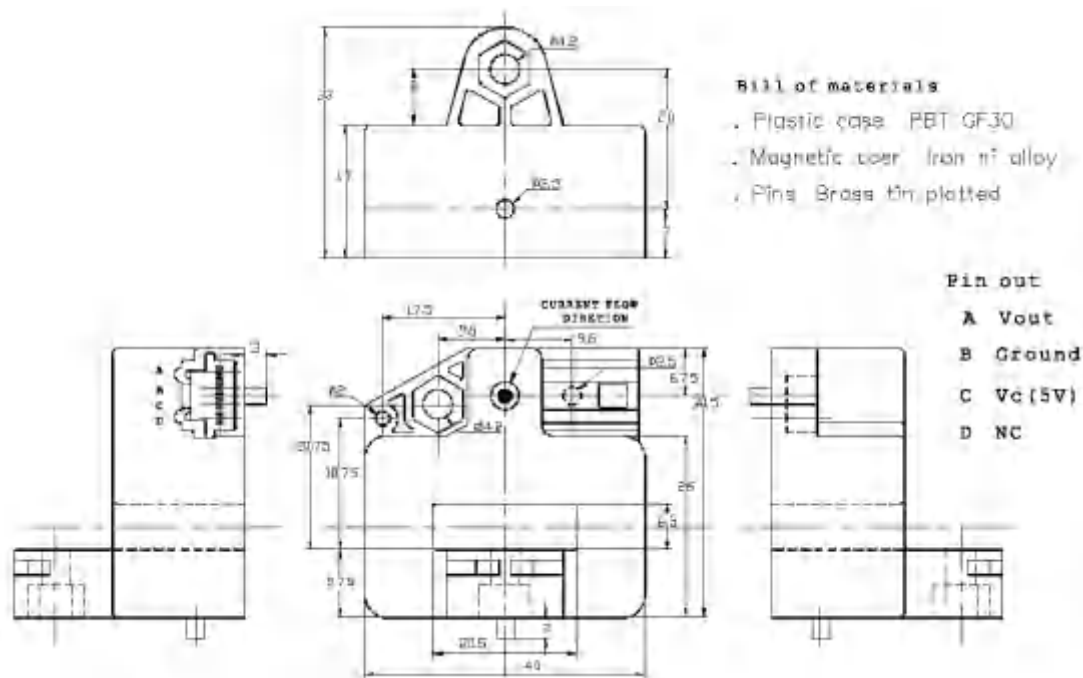
HKC-HAHS52 Series high precision current sensor

HKC-HAHS52 Series high precision current sensor is a open loop device based on the measuring principle of the hall effect ,with a galvanic isolation between primary and secondary circuit, the size of primary not affect test precision, no matter the location of primary in the hole of current sensor, It uses for precision measurement of DC, AC and pulse current.

Electrical data($T_a=25^{\circ}\text{C}\pm 5^{\circ}\text{C}$, $R_L=10\text{K}\Omega$, $C_L=10000\text{PF}$)

Type	HKC50 HAHS52	HKC100 HAHS52	HKC200 HAHS52	HKC300 HAHS52	HKC500 HAHS52	HKC600 HAHS52	HKC800 HAHS52	HKC1000 HAHS52	HKC1200 HAHS52	HKC1500 HAHS52	Unit
Parameter											
Rated input (I _{pn})	±50	±100	±200	±300	±500	±600	±800	±1000	±1200	±1500	A
Measure range(I _p)	±56	±112	±225	±337	±562	±675	±900	±1000	±1200	±1500	A
Rated output	±2.0±0.5%@I _p =0~±I _{pn}										V
Zero voltage	1/2V _{cc} ±0.5%@I _p =0										V
Reference voltage	2.5±0.5%										V
Supply voltage	+5±5%										V
Power Consumption	≤15										mA
Offset voltage	≤±5.0										mV
Magnetic offset	±5.0				±3.0						mV
Offset drift	≤±1				≤±0.5						mV/°C
output drift	≤±1				≤±0.5						mV/°C
Linearity	≤0.5@I _p =0~±I _{pn}										%FS
Response time	≤5@100A/μS, 10%-90%										μS
Bandwidth	DC~20@ -3dB										KHZ
Galvanic isolation	2.5@ 50HZ,AC,1min										KV
Operating Temperature	-40~+125										°C
Storage Temperature	-40~+125										°C

Mechanical dimension(for reference only)



Directions 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. Customs can adjust Output amplitude of the sensor by needs.



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3.Custom design in the different rated input current and the output voltage are available.



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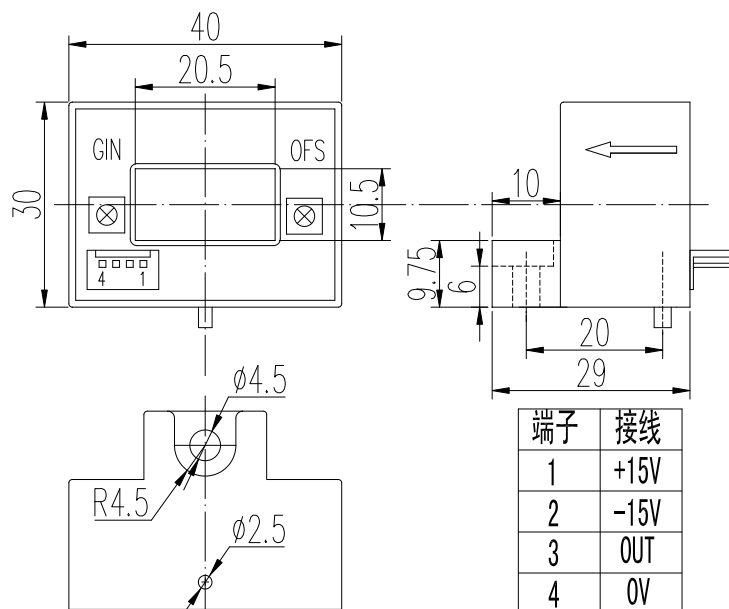
HKC-HAS Series removable Hall Effect Current Sensor

HKC-HAS 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°C)

	HKC50HAS	HKC100HAS	HKC200HAS	HKC300HAS	HKC400HAS	HKC500HAS	HKC600HAS	
Input current(IP)	50	100	200	300	400	500	600	A
Current range(IPN)	150	300	600	900	900	900	900	A
Output voltage(VOUT)	1* IP	4±1%						V
Supply voltage		±15 ±5%						V
Offset Voltage	25	20						mV
Magnetic Offset voltage	±30	±25						mV
Offset Voltage drift	≤±2.0	≤±1.0						mV/°C
Output Voltage drift		≤±0.1%/°C						VOUT
Linearity		≤1						%FS
Response Time		≤3						μS
Insulation voltage	50HZ,1min	2.5						KV
Operating Temperature		-20~+85						°C
Storage Temperature		-40~+85						°C

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.



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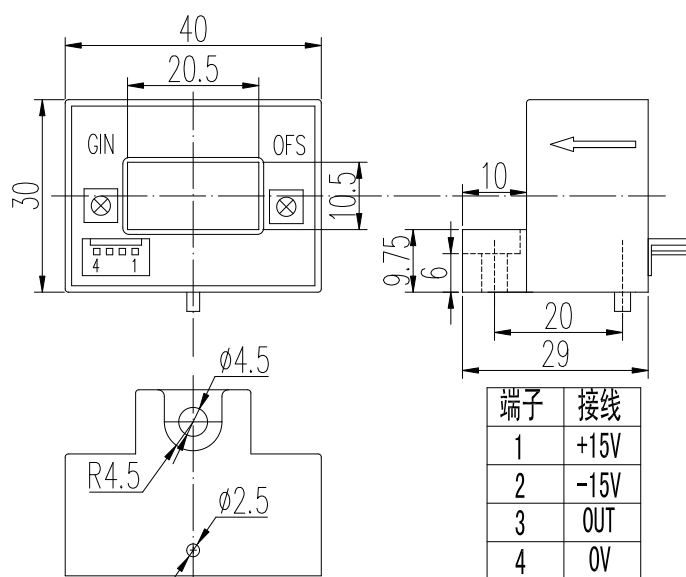
HKC-HAS Series Hall Effect Current Sensor

HKC-HAS 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°C)

	HKC50HAS HKC400HAS	HKC100HAS HKC500HAS	HKC200HAS HKC600HAS	HKC300HAS				
Rated input current(IP)	50	100	200	300	400	500	600	A
Current range(IPN)	150	300	600	900	900	900	900	A
Output voltage(VOUT)	1* IP	4±1%						V
Supply voltage	±15 ±5%						V	
Offset voltage	25	20						mV
Magnetic offset voltage	±30	±25						mV
Offset voltage Drift	≤±2.0	≤±1.0						mV/°C
Output voltage Drift	≤±0.1%/°C						VOUT	
Linearity	≤1						%FS	
Response time	≤3						μS	
Insulation voltage 50HZ,1min	2.5						KV	
Operating Temperature	-20~+85						°C	
Storage Temperature	-40~+85						°C	

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



HKC-HAS 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.

	HKC50HAS HKC400HAS		HKC100HAS HKC500HAS		HKC200HAS HKC600HAS		HKC300HAS	
Rated input current(IPN)	50	100	200	300	400	500	600	A
Current range(IPM)	150	300	600	900	900	900	900	A
Rated output voltage(VOUT)	1* IP					4±1%		V
Supply voltage(VC)						±15 ±5%		V
Offset Voltage	25					20		mV
Magnetic dissonance voltage	±30					±25		mV
Offset Voltage drift	≤±2.0					≤±1.0		mV/°C
Output Voltage drift						≤±0.1%/°C		VOUT
Linearity						≤1		%FS
Response Time						≤3		μS
Insulation voltage(50Hz,1min)						2.5		KV
Operating Temperature						-20~+85		°C
Storage Temperature						-40~+85		°C

端子	接线
1	+15V
2	-15V
3	OUT
4	0V

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.

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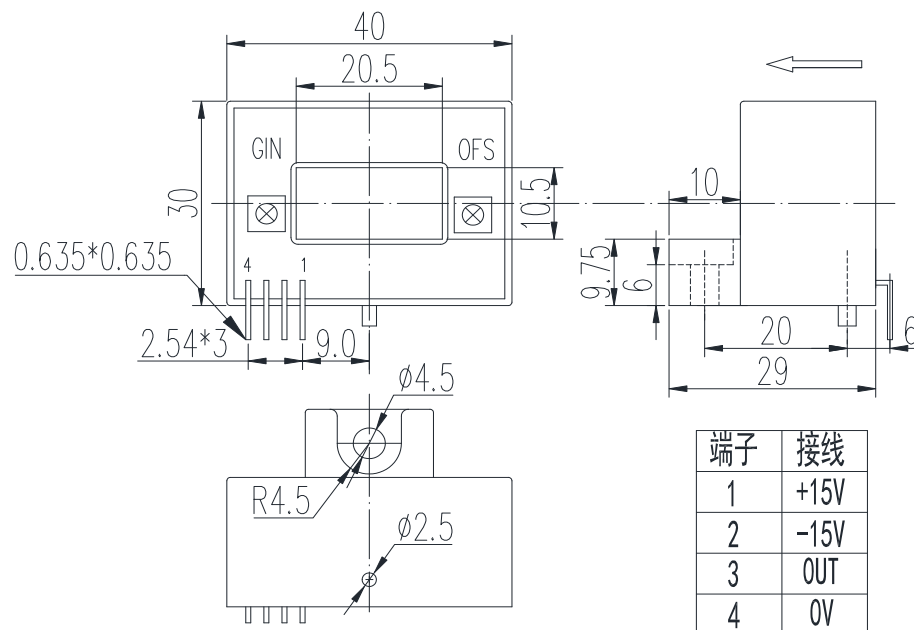
HKC-HASP Series Hall Effect Current Sensor

HKC-HASP 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°C)

	HKC50HASP HKC400HASP	HKC100HASP HKC500HASP	HKC200HASP HKC600HASP	HKC300HASP				
Rated input current(IP)	50	100	200	300	400	500	600	A
Current range(IPN)	150	300	600	900	900	900	900	A
Output voltage(VOUT)	1* IP	4±1%						V
Supply voltage	±15 ±5%							V
Offset voltage	25	20						mV
Magnetic offset voltage	±30	±25						mV
Offset voltage Drift	≤±2.0	≤±1.0						mV/°C
Output voltage Drift	≤±0.1%/°C							VOUT
Linearity	≤1							%FS
Response time	≤3							μS
Insulation voltage 50HZ,1min	2.5							KV
Operating Temperature	-20~+85							°C
Storage Temperature	-40~+85							°C

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



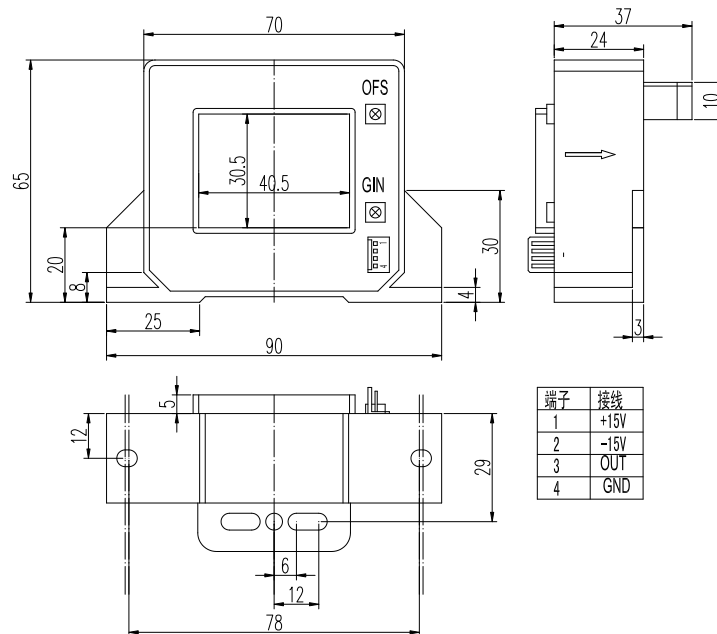
HKC-HAT Series Hall Effect Current Sensor

HKC-HAT 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

	HKC100HAT	HKC300HAT	HKC500HAT	HKC1000HAT	HKC2000HAT	
Rated input current	100	300	500	1000	2000	A
Test current range	300	900	1500	2000	3000	A
Rated output voltage	4±1%					V
Supply voltage	±15±5%					V
Offset voltage	≤±35			≤±30		mV
Magnetic offset voltage	≤±30			≤±25		mV
Offset voltage Drift	≤±1.5			≤±1.0		mV/°C
Linearity	≤±1					%FS
Response time	≤7					μS
Insulation voltage	(50HZ/60Hz,1min),3.0					KV
Operating Temperature	-20~+70					°C
Storage Temperature	-40~+85					°C

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



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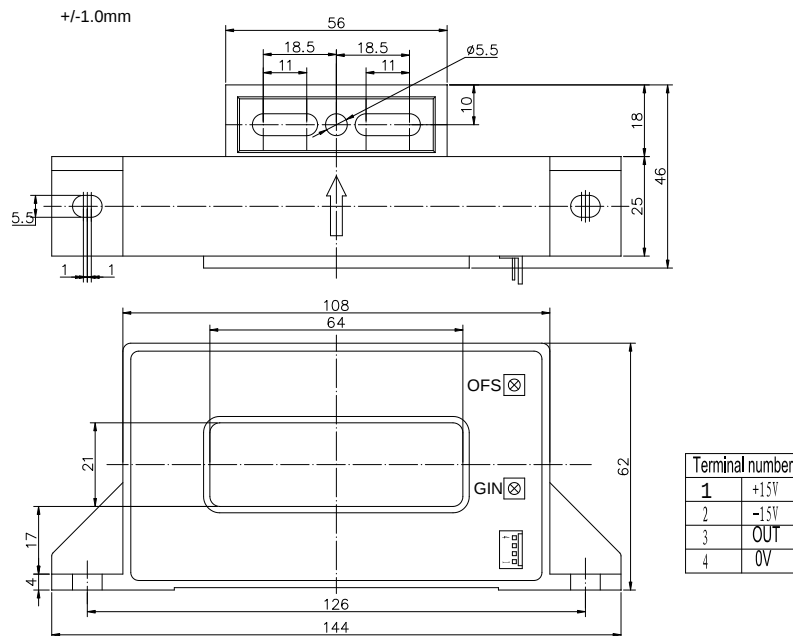
HKC-HAX Series Hall Effect Current Sensor

HKC-HAX 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

	HKC500H AX	HKC1000HA X	HKC1500H AX	HKC2000H AX	HKC2500H AX	
Rated input current(IPN)	500	1000	1500	2000	2500	A
Test current range(IPM)	1500	3000	4500	5500	5500	A
Rated output voltage(VOUT)	4±1%					V
Supply voltage	±15±5%					V
Offset voltage(VO)	≤±30					mV
Magnetic offset voltage	≤±25					mV
Offset voltage Drift(TCV _{OE})	≤±1.0					mV/°C
Offset voltage Drift(TCV _{OUT})	≤±2.0					mV/°C
Linearity	≤±1					%FS
Response time	≤7					μS
Insulation voltage(50HZ/60Hz,1min)	3					KV
Operating Temperature	-25~+85					°C
Storage Temperature	-25~+85					°C

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

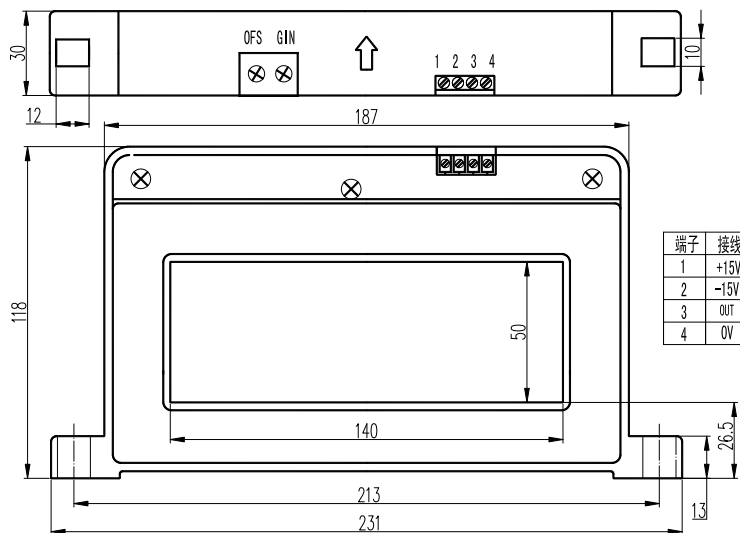
HKC-HB Series Hall Effect Current Sensor

The HKC-HB 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

	HKC1000HB	HKC2000HB	HKC4000HB	HKC5000HB	HKC8000HB	
Rated Current	1000	2000	4000	5000	8000	A
Measure Range	2000	4000	6000	7500	12000	A
Rated Output voltage				4±1%		V
Supply Voltage				±15±5%		V
Offset Voltage	≤±30			≤±25		mV
Magnetic Offset Voltage	≤±40			≤±30		mV
Offset Voltage Drift	≤±1.5			≤±1.0		mV/°C
Linearity				≤±1		%FS
Response Time				≤10		μS
Galvanic Isolation	(50HZ,1min)			6		KV
Operating Temperature				-20~+70		°C
Storage Temperature				-40~+85		°C

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.



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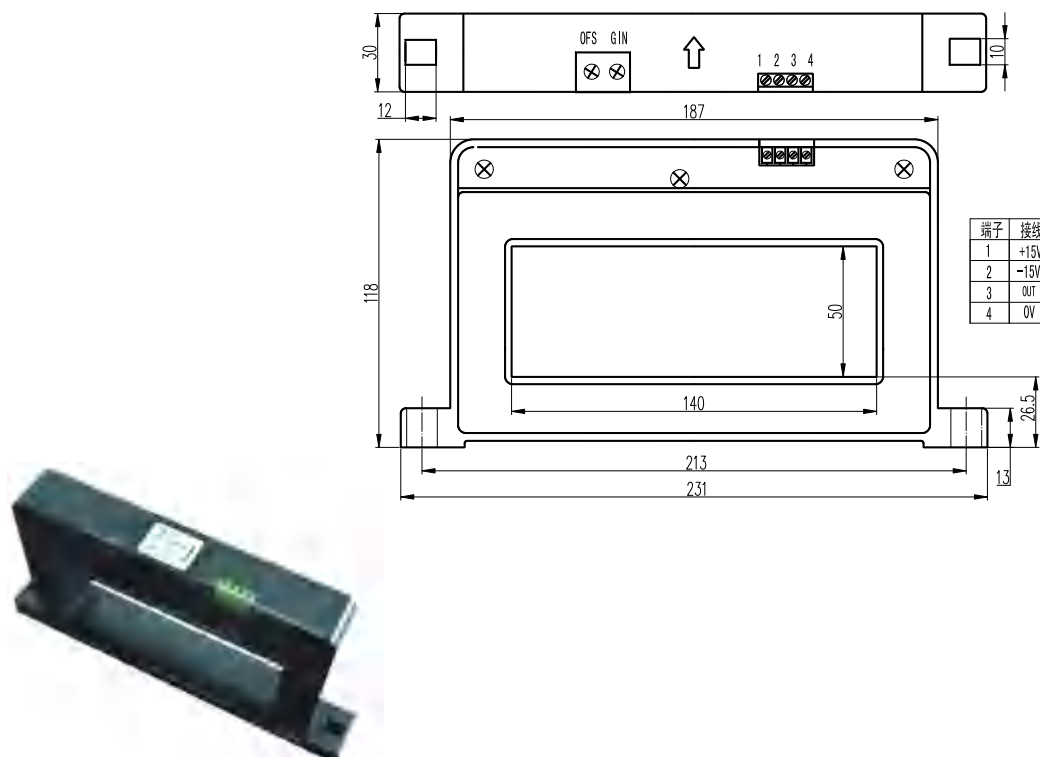
HKC-HB Series Hall Effect Current Sensor

The HKC-HB 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

	HKC1000HB	HKC2000HB	HKC3000HB	HKC5000HB	HKC8000HB	
Rated Current	1000	2000	3000	5000	8000	A
Measure Range	2000	4000	5000	7500	12000	A
Rated Output voltage	0-4V/ 0-5V/ 0-10V $\pm 1\%$					V
Supply Voltage	$\pm 12/\pm 15 \pm 5\%$					V
Offset Voltage	$\leq \pm 30$					mV
Magnetic Offset Voltage	$\leq \pm 40$					mV
Offset Voltage Drift	$\leq \pm 1.5$					mV/°C
Linearity	$\leq \pm 1$					%FS
Response Time	≤ 10					μS
Galvanic Isolation	(50HZ,1min)					KV
Operating Temperature	$-20 \sim +70$					°C
Storage Temperature	$-40 \sim +85$					°C

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.



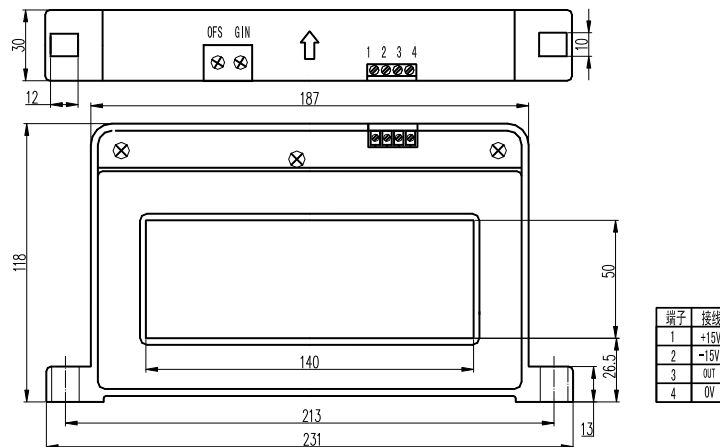
HKC-HB Series Hall Effect Current Sensor

HKC-HB series current sensors are insulated between primary and secondary, and can be used to measure DC, AC and pulse currents.

ELECTRICAL DATA

	HKC1000HB	HKC2000HB	HKC3000HB	HKC5000HB	HKC8000HB	HKC10000HB	
Rated input current	1000	2000	3000	5000	8000	10000	A
Measure Range	2000	4000	5000	7500	12000	12000	A
Rated Output voltage	4±1%						V
Supply Voltage	±15±5%						V
Current consumption	<30						mA
Offset Voltage	≤±30		≤±25				mV
Magnetic Offset Voltage	≤±40		≤±30				mV
Offset Voltage Drift	≤±1.5		≤±1.0				mV/ ℃
Linearity	≤±1						%FS
Response Time	≤10						μS
Insulation voltage	6(50/60HZ,1min)						KV
Operating Temperature	-20~+70						℃
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. 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.



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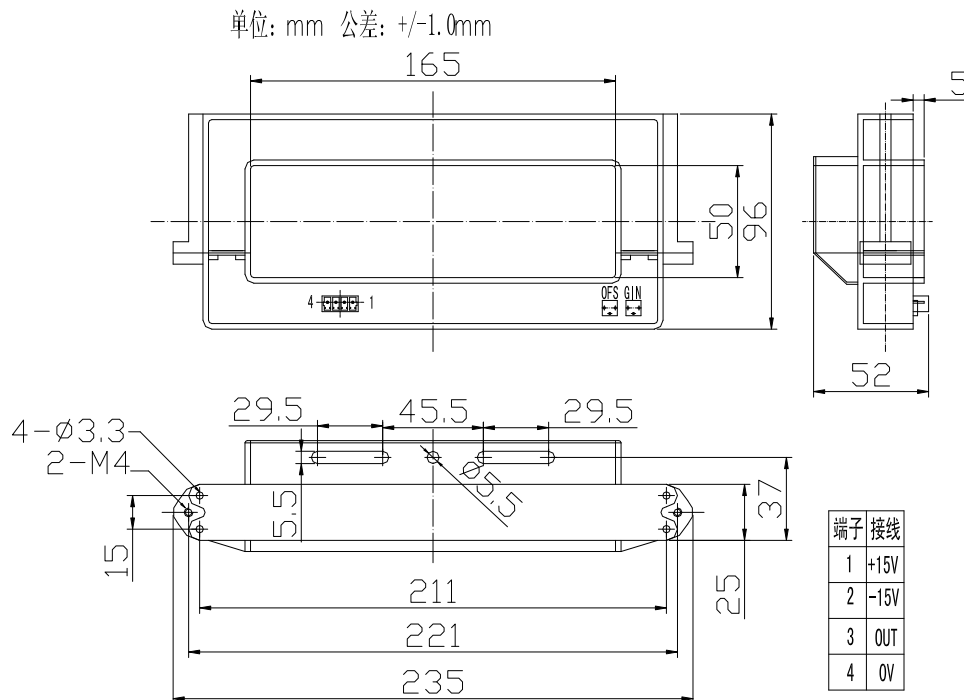
HKC-HOP Series removable Hall Effect Current Sensor

HKC-HOP 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

	HKC800HOP	HKC1000HOP	HKC1200HOP	HKC1500HOP	HKC2000HOP	
Rated input current	800	1000	1200	1000	2000	A
Test current range	±1600	±2000	±2400	±3000	±3000	A
Rated output voltage	±4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±30		≤±20			mV
Magnetic offset voltage	≤±40		≤±30			mV
Offset voltage Drift	≤±1.5		≤±1.0			mV/°C
Linearity	≤±1					%FS
Response time	≤10					μS
Insulation voltage	(50HZ,1min),6					KV
Operating Temperature	-20~+70					°C
Storage Temperature	-25~+85					°C

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



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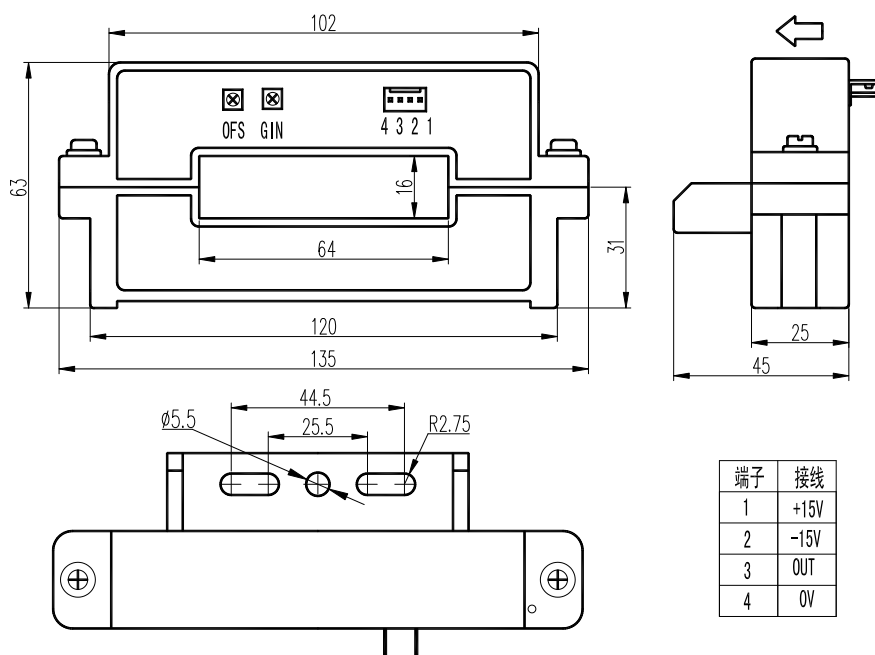
HKC-K Series Hall Effect Current Sensor

HKC-K 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°C)

	HKC400K	HKC600K	HKC800K	HKC1000K	HKC2000K	
Rated input current(IP)	400	600	800	1000	2000	A
Test current range	800	1200	1600	2000	3000	A
Rated output voltage	4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±30		≤±20			mV
Magnetic offset voltage	≤±40		≤±30			mV
Offset voltage drift	≤±1.5		≤±1.0			mV/°C
Linearity	≤±1					%FS
Response time	≤7					μS
Insulation voltage(50HZ,1min)	6					KV
Operating Temperature	-20~+70					°C
Storage Temperature	-40~+85					°C

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

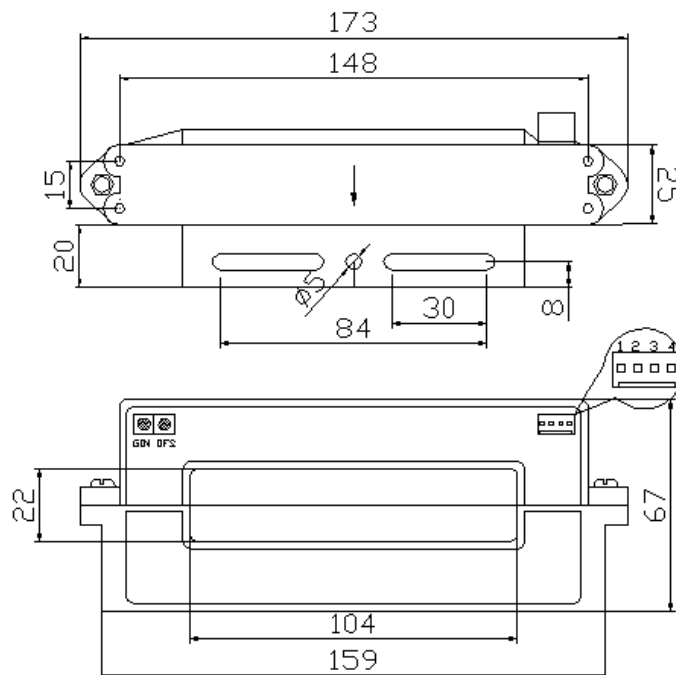
HKC-KB Series removable Hall Effect Current Sensor

HKC-KB 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

	HKC500KB	HKC1000KB	HKC2000KB	HKC3000KB	HKC4000KB	
Rated input current	500	1000	2000	3000	4000	A
Test current range	1000	2000	4000	4500	5000	A
Rated output voltage	4±1%					V
Supply voltage	±12~±15 ±5%					V
Offset voltage	≤±30	≤±20				mV
Magnetic offset voltage	±30					mV
Offset voltage Drift	≤±1.5	≤±1				mV/°C
Linearity	≤1					%FS
Response time	≤10					μS
Insulation voltage(50HZ,1min)	3					KV
Operating Temperature	-20~+85					°C
Storage Temperature	-40~+105					°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



1:+15V 2:-15V 3:VOUT 4:0V OFS: Zero adjustment GIN:Amplitude adjustment

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

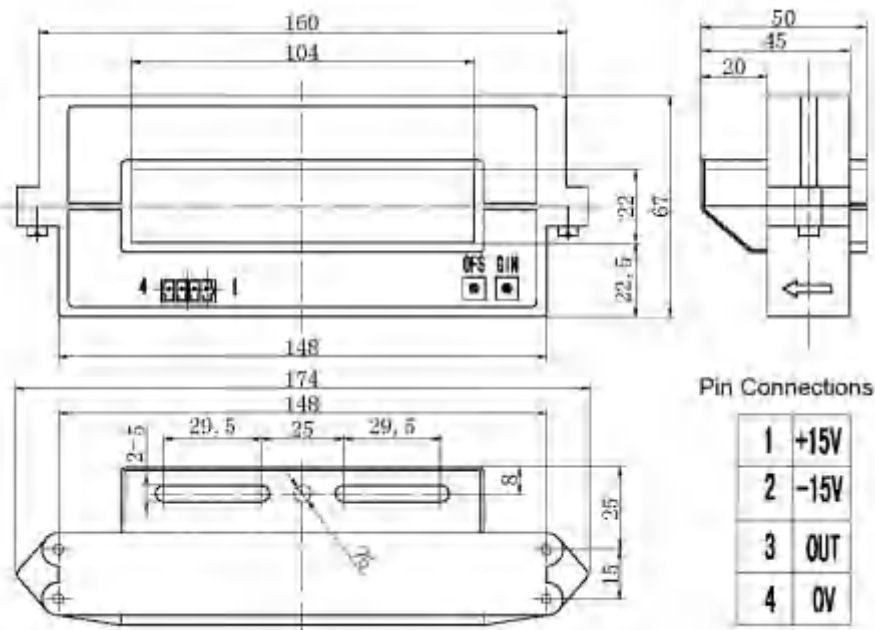
HKC-KB Series removable Hall Effect Current Sensor

HKC-KB 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

	HKC800KB	HKC1000KB	HKC1200KB	HKC1500KB	HKC2000KB	
Rated input current	800	1000	1200	1500	2000	A
Test current range	±1600	±2000	±2400	±3000	±3000	A
Rated output voltage	±4±1%					V
Supply voltage	±15 ±5%					V
Offset voltage	≤±30	≤±20				mV
Magnetic offset voltage	≤±40	≤±30				mV
Offset voltage Drift	≤±1.5	≤±1				mV/°C
Linearity	≤±1					%FS
Response time	≤10					μS
Insulation voltage(50HZ,1min)	6					KV
Operating Temperature	-20~+70					°C
Storage Temperature	-25~+85					°C

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

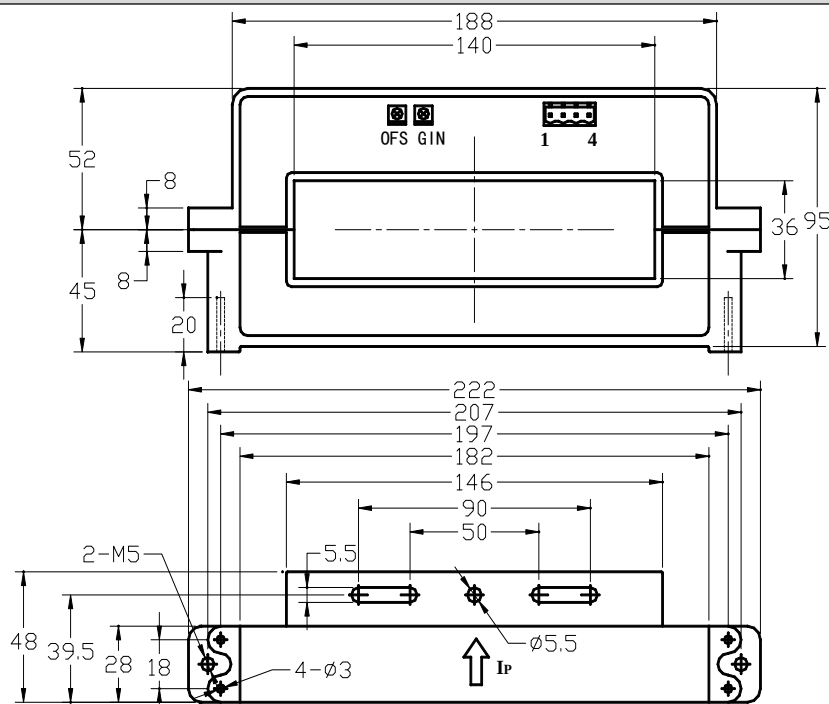
HKC-KC Series Hall Effect Current Sensor

HKC-KC 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

	Part No.	HKC1000K	HKC3000K	HKC5000	HKC8000K	HKC10000	
I_{PN}	Rated input current	1000	3000	5000	8000	10000	A
I_P	Test current range	0~±2000	0~±6000	0~	0~±12000	0~±12000	A
V_{OUT}	Rated output voltage	4±1%					V
V_C	Supply voltage	±15(±5%)					V
I_C	Current loss $V_C=±15V$	<35					mA
V_d	Insulation voltage	6 @/50Hz/1min,Pri to Sec					kV
ϵ_L	Linearity	<0.5					%FS
V_0	Zero offset voltage $T_A=25^\circ C$	<±25					mV
V_{OM}	Magnetic offset voltage $I_{PN} \rightarrow 0$	<±30					mV
V_{OT}	Offset voltage temp. Drift $I_P=0, T_A=-25 \sim +85^\circ C$	<±1					mV/°C
T_r	Response time	<7					μs
f	Bandwidth(-3dB)	DC~3					kHz
T_A	Operating Temperature	-25~+85					°C
T_S	Storage Temperature	-40~+100					°C
R_L	Load DCR	≥10K					Ω
m	Weight	1220					g

MUTING DIMENSIONS(FOR REFERENCE ONLY (mm))



Terminal: 1,+15V 2,-15V 3,VOUT 4,0V(ground) OFS,Zero adjustment GIN,Amplitude adjustment
Lead: Red,+15V Blue,-15V Yellow,VOUT Black,0V(ground)

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

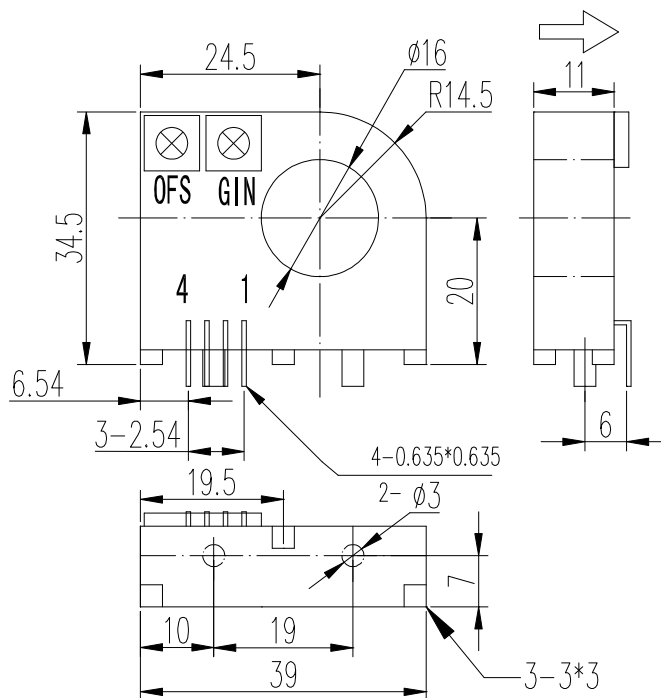
HKC-LBP Series removable Hall Effect Current Sensor

HKC-LBP 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

	HKC200LBP/4V	
Rated input current	± 200	A
Test current range	± 500	A
Rated output voltage	$\pm 4 \pm 1\%$	V
Supply voltage	$\pm 15 \pm 5\%$	V
Offset voltage	$\leq \pm 30$	mV
Magnetic offset voltage	± 25	mV
Rated output voltage Drift	$\leq \pm 2$	mV/°C
Offset voltage Drift	$\leq \pm 1$	mV/°C
Linearity	$\leq \pm 1$	%FS
Response time	≤ 5	μ S
Insulation voltage(50HZ, 1min)	2.5	KV
Operating Temperature	-20~+85	°C
Storage Temperature	-25~+105	°C

MUTING DIMENSIONS(FOR REFERENCE ONLY)



Terminal	Define
1	+15V
2	-15V
3	OUT
4	0V

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

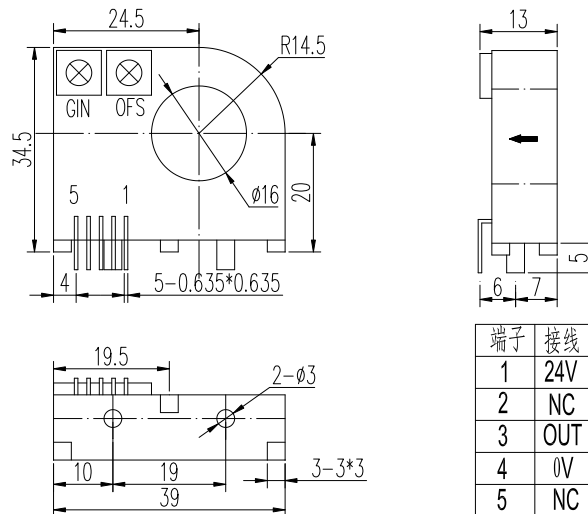
HKC-LBS5 Series Hall Effect Current Sensor

HKC-LBS5 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

	HKC50LBS5	HKC100LBS5	HKC200LBS5	HKC300LBS5	
Rated input current	50	100	200	300	A
Test current range	75	150	300	450	A
Rated output voltage	0.625±1%				V
Supply voltage	24±5%				V
Zero voltage Offset	2. 5±0.025				V
Current consumption	≤20				mA
Linearity	≤±1				%FS
Response time	<5				μs
Output temperature drift	≤±3				mV /°C
Zero temperature drift	≤±1				mV/°C
Insulation voltage 50(60)HZ,1min	2.5				KV
Operating Temperature	-10~+80				°C
Storage Temperature	-40~+85				°C

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



SHAANXI SHINHOM ENTERPRISE CO.,LTD

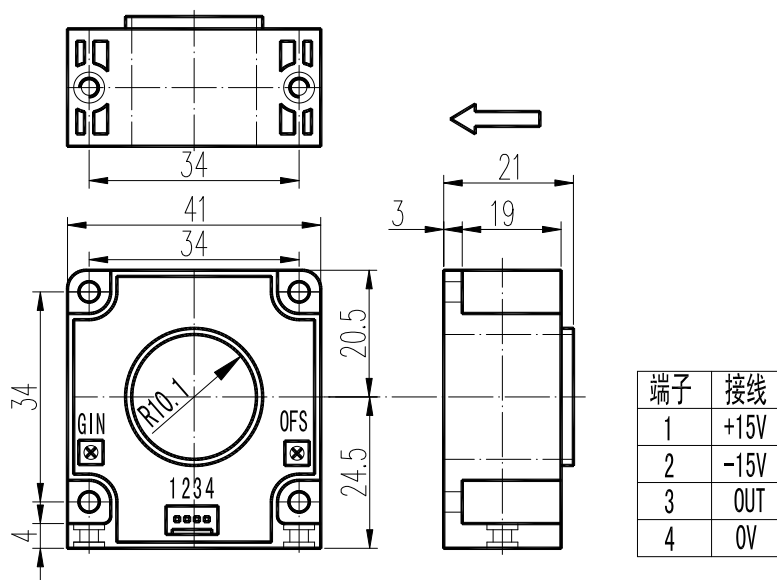
HKC-LTH Series Hall Effect Current Sensor

HKC-LTH 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

	HKC10LTH	HKC20LTH	HKC50LTH	HKC100LTH	HKC200LTH	HKC300LTH	
Rated input current	10	20	50	100	200	300	A
Test current range	30	60	150	300	450	450	A
Rated output voltage						4±0.2%	V
Supply voltage						±15±5%	V
Offset Voltage						≤±15	mV
Magnetic dissonance voltage	≤±20					≤±15	mV
Offset voltage Drift	≤±1.0					≤±0.5	mV/°C
Linearity						≤±0.2	%FS
Response Time						≤3	μS
Insulation voltage	(50HZ,1min)					2.5	KV
Operating Temperature						-40~+85	°C
Storage Temperature						-40~+85	°C

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.

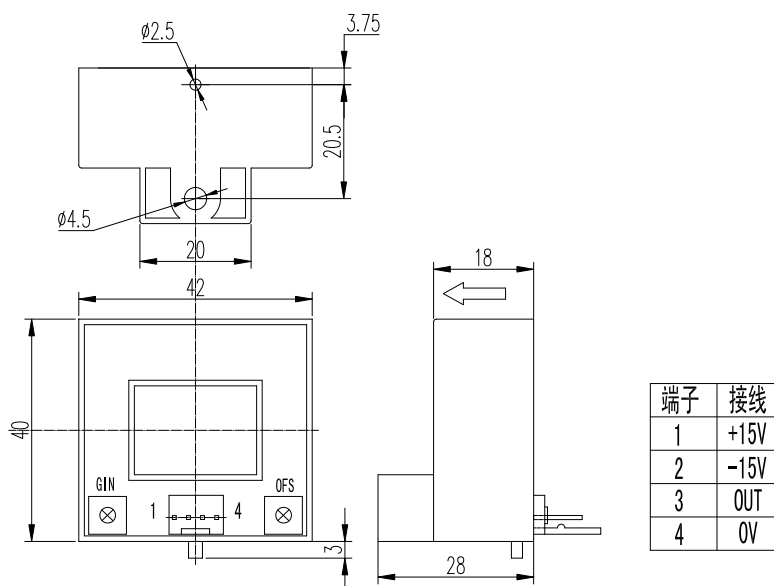
HKC-N Series Hall Effect Current Sensor

HKC-N 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

[illegible]

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

SHAANXI SHINHOM ENTERPRISE Co.,LTD

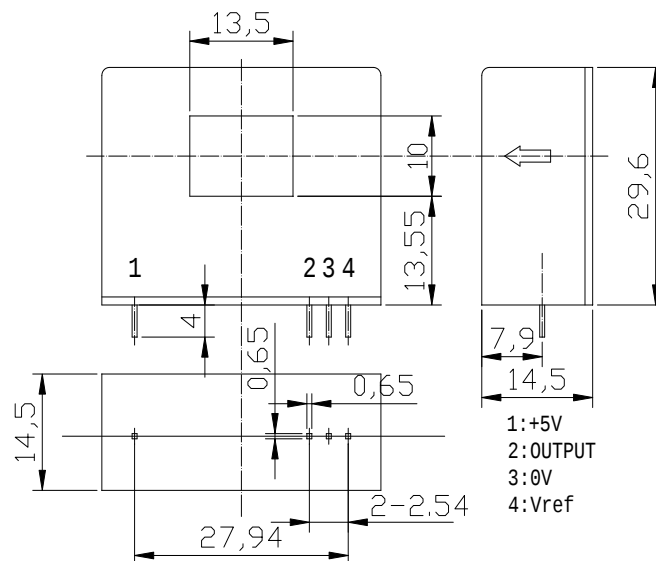
HKC-PTPS series current sensor

HKC-PTPS series current sensor is an insulated between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

ELECTRICAL DATA

	HKC50PTPS	HKC100PTPS	HKC150PTPS	
Rated current(IPN)	50	100	150	A
Measure range (IPM)	150	300	300	A
Rated output (VOUT)			0.625±1%	V
Offset voltage(VO)			2.5±0.5%	V
Benchmark voltage (Vref)			2.5±0.5%	V
Supply voltage (VC)			+5±5%	V
misalignment voltage			25	mV
magnetic misalignment voltage	±20		±15	mV
Offset voltage temperature drift	≤±2.0		≤±1	mV/°C
Linearity			≤1	%FS
Response time			≤3	μS
Insulation voltage	50HZ,1min		2.5	KV
Operating temperature			-40~+85	°C
Storage temperature			-40~+85	°C

MUTING DIMENSIONS



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.

MAIL: sales@shinhom.com.cn

Closed loop hall effect current sensor

HCB-50A,100A

HCB-0.05A~100A

Used to measure DC, AC, pulse current.... The measured current on the primary side is electrically isolated from the output current on the secondary side

Feature:

Test frequency: 0~100KHz

Accuracy: 0.2%~1%

Response time: Less than 1μs

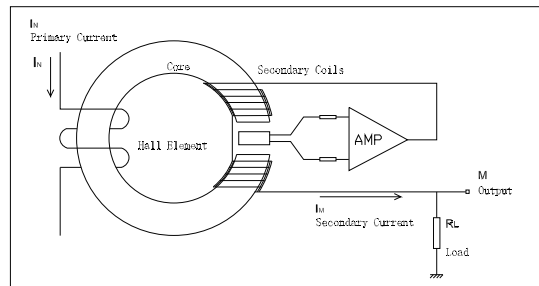
Linearity: 0.1%

No insertion loss measured

Measure AC, DC and pulse current

The primary current is highly isolated from the secondary output signal

Closed-loop Hall magnetic compensation principle manufacturing



Working principle:

Hall magnetic compensation principle: The magnetic field generated by the measured current I_N flowing through the conductor is compensated by the magnetic field generated by the secondary coil controlled by the compensation current I_M output signal of the Hall element. When the magnetic field of the primary and secondary sides reaches balance, the compensation current I_M can accurately reflect the I_N value of the primary side current.

HCB series hall effect current sensor

Part No	I_N (A)	I_F (A)	I_M (mA)	Accuracy $T_a=25^\circ\text{C}$	Turns ratio	Load Resistance		I_{off} (mA)	V_c (V)	I_c (mA)	V_i (KV)	T_a ($^\circ\text{C}$)	W(g)	Input hole mm	Fig. No.
						Ω_{min}	Ω_{max}								
HCB-50P	50	± 80	50	0.8%	1:1000	10	160	± 0.3	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	16	15x7	4
HCB-50T													35	Busbar	9
HCB-100P	100	± 150	50	0.5%	1:2000	0	110	± 0.3	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	15x7	4
HCB-100T													37	Busbar	9
HCB-50P/SP80	10/25/50	$\pm 1.5 \times I_M$	5V	0.8%	5/2/1:1000	...	...	$\pm 30\text{mV}$	± 15	$10+I_M$	2.5	-25~+85	35	15x7	2
HCB-100P/SP80	100	150	5V	0.8%	1:2000	...	...	$\pm 30\text{mV}$	± 15	$10+I_M$	2.5	-25~+85	35	15x7	2

HCB series hall effect current sensor

Part No	I_N (A)	I_F (A)	I_M (mA)	Accuracy $T_a=25^\circ\text{C}$	Turns ratio	Resistance		I_{off} (mA)	V_c (V)	I_c (mA)	V_i (KV)	T_a ($^\circ\text{C}$)	W(g)	Input mm	Fig. No.
						Ω_{min}	Ω_{max}								
HCB-20L/SP1	0.05	± 0.06	5V	1.0%	400:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP2	0.1	± 0.12	5V	1.0%	200:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP3	0.25	± 0.3	5V	1.0%	80:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP4	0.5	± 0.6	5V	1.0%	40:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP5	1	± 1.2	5V	1.0%	20:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP6	1.5	± 1.8	5V	1.0%	14:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP7	2	± 2.4	5V	1.0%	10:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP8	2.5	± 3	5V	1.0%	8:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-20L/SP9	5	± 6	5V	1.0%	4:1000	...	...	$\pm 100\text{mV}$	$\pm 12\sim 15$	$10+I_M$	2.5	-25~+85	18	PCB	8
HCB-25NP/SP3	0.25	± 0.36	25	0.8%	100:1000	100	190	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	7
HCB-25NP/SP4	0.5	± 0.72	25	0.8%	50:1000	100	190	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	7
HCB-25NP/SP5	1	± 1.5	25	0.8%	25:1000	100	190	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	7
HCB-25NP/SP6	1.5	± 2.2	24	0.8%	16:1000	100	190	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	7
HCB-25NP/SP7	2	± 3	24	0.8%	12:1000	100	190	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	7
HCB-25NP/SP8	2.5	± 3.6	25	0.8%	10:1000	100	190	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	7
HCB-25NP/SP9	5	± 6	25	0.8%	5:1000	100	190	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	7
HCB-25NP	5/25	$\pm 7/36$	25	0.8%	5/1:1000	100	300	± 0.3	± 15	$10+I_M$	2.5	-25~+85	18	PCB	3
(multirange)	6/8/12	$\pm 9/12/18$	24	0.8%	4/3/2:1000	...	...								
HCB-6MP	6	± 19	$2.5 \pm 0.625\text{V}$	0.7%	1:960	10K	...	$\pm 12.5\text{mV}$	+5	$10+I_M$	2.5	-25~+85	10	PCB	10
HCB-15MP	15	± 48	$2.5 \pm 0.625\text{V}$	0.7%	1:1200	10K	...	$\pm 12.5\text{mV}$	+5	$10+I_M$	2.5	-25~+85	10	PCB	10
HCB-25MP	25	± 80	$2.5 \pm 0.625\text{V}$	0.7%	1:2000	10K	...	$\pm 12.5\text{mV}$	+5	$10+I_M$	2.5	-25~+85	10	PCB	10
HCB-*AD	0.5/1/2/5/8	$\pm 1.5 \times I_M$	5V	1.0%	50~3:1000	...	...	$\pm 60\text{mV}$	± 15	$10+I_M$	2.5	-25~+85	100	terminal	1
HCB-*AD	10/15/20/25	$\pm 1.5 \times I_M$	5V	1.0%	2/1:1000	...	...	$\pm 60\text{mV}$	± 15	$10+I_M$	2.5	-25~+85	100	Pin	5
HCB-50A	50	± 80	50	0.8%	1:1000	50	160	± 0.3	± 15	$10+I_M$	2.5	-25~+85	50	15x7	6
HCB-100A	100	± 150	50	0.5%	1:2000	50	110	± 0.3	± 15	$10+I_M$	2.5	-25~+85	50	15x7	6

* : Rated input current

S: Circular through-hole

T: Busbar

A: Square through hole

P: PCB mount



Fig. 1

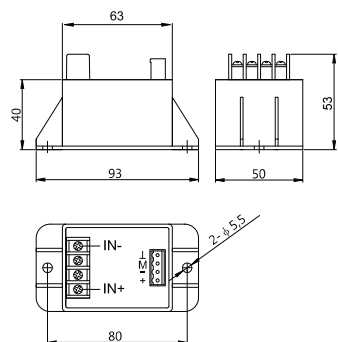


Fig. 2

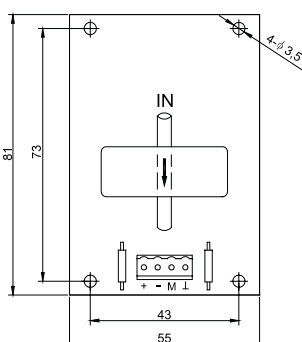
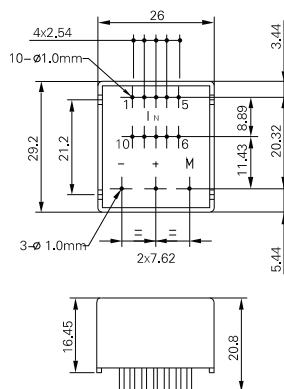


Fig. 3



IN(A)	
5	OUT 5 4 3 2 1 IN 10 8 9 6 7
6	OUT 5 4 3 2 1 IN 10 8 9 6 7
8	OUT 5 4 3 2 1 IN 10 8 9 6 7
12	OUT 5 4 3 2 1 IN 10 8 9 6 7
25	OUT 5 4 3 2 1 IN 10 8 9 6 7

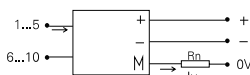


Fig. 4

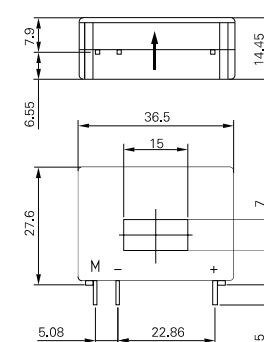


Fig. 5

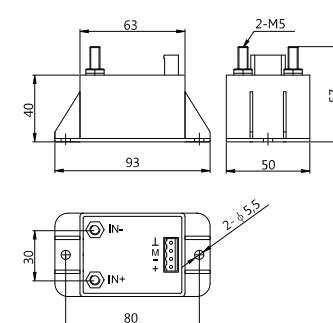


Fig. 6

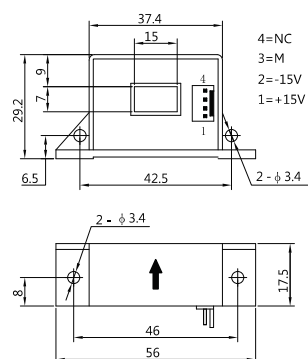


Fig. 7

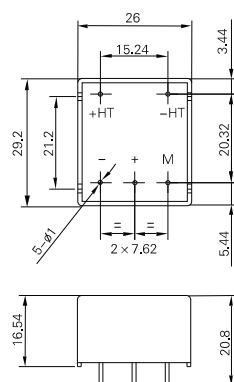


Fig. 8

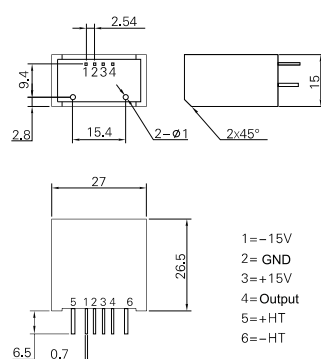


Fig. 9

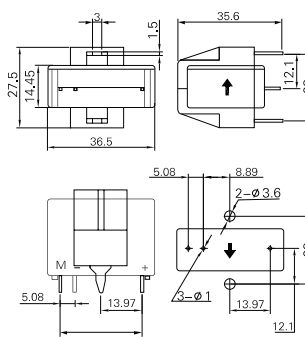
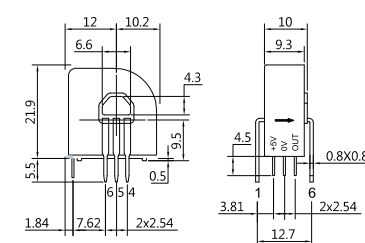


Fig. 10



IN	Nominal current	Voff	Offset voltage
VN	Nominal voltage	Td	Temperature drift
Ip	Measuring range	L	Linearity
RM	Measuring resistance	Tr	Response time
IM	Output current	f	Frequency bandwidth
VM	Output voltage	Ta	Operating temperature
KN	Turns ratio	Ts	Storage temperature
X	Accuracy	Ic	Current consumption
Vc	Supply voltage	Rs	Secondary resistance
Vi	Isolation voltage	RN	Primary resistance
Ioff	Offset current	W	Weight

M	Output
M+	Output+
M-	Output-
NC	NO
IN	Input
IN+(+HT)	Input+
IN-(-HT)	Input-
+VN	Input voltage+
-VN	Input voltage-

Closed loop hall effect current sensor

HCB-20A~20000A

Used to measure DC, AC, pulse current.... The measured current on the primary side is electrically isolated from the output current on the secondary side

Feature:

Test frequency: 0~100KHz

Accuracy: 0.2%~1%

Response time: Less than 1uS

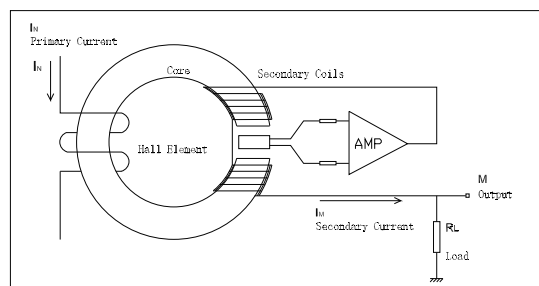
Linearity: 0.1%

No insertion loss measured

Measure AC, DC and pulse current

The primary current is highly isolated from the secondary output signal

Closed-loop Hall magnetic compensation principle manufacturing



Working principle:

Hall magnetic compensation principle: The magnetic field generated by the measured current I_N flowing through the conductor is compensated by the magnetic field generated by the secondary coil controlled by the compensation current I_M output signal of the Hall element. When the magnetic field of the primary and secondary sides reaches balance, the compensation current I_M can accurately reflect the I_N value of the primary side current.

Part No	I_N (A)	I_p (A)	I_M (mA)	Accuracy $T_a=25^\circ\text{C}$	Turns ratio	Load Resistance		I_{off} (mA)	V_c (V)	I_c (mA)	V_i (KV)	T_a ($^\circ\text{C}$)	W(g)	Input hole mm	Fig. No.
						Ω_{min}	Ω_{max}								
HCB-20MS	20	± 20	$2.5 \pm 2V$	0.8%	1:500	10K		$\pm 30mV$	+5	$10+I_M$	2.5	-25~+85	10	PCB/ $\phi 8.5$	8
HCB-50MS	50	± 50	$2.5 \pm 2V$			10K									
HCB-50SF	50	± 80	50	1.0%	1:1000	40	150	± 0.3	$\pm 12 \sim 18$	$10+I_M$	3	-25~+85	105	$\phi 20$	1
HCB-50TF													350	Busbar	9
HCB-100SF	100	± 150	100	1.0%	1:1000	20	120	± 0.3	$\pm 12 \sim 18$	$10+I_M$	3	-25~+85	105	$\phi 20$	1
HCB-100TF													350	Busbar	9
HCB-125P	125	± 200	125	0.6%	1:1000	14	70	± 0.4	$\pm 12 \sim 15$	$16+I_M$	3	-25~+85	40	11X13(17)	17
HCB-150P	150	± 200	75	0.4%	1:2000	0	60	± 0.2	$\pm 12 \sim 15$	$16+I_M$	3	-25~+85	45	11X13(17)	17
HCB-200P	200	± 300	100	0.4%	1:2000	0	60	± 0.3	$\pm 12 \sim 15$	$16+I_M$	3	-25~+85	45	11X13(17)	17
HCB-200S	200	± 300	100	0.5%	1:2000	5	50	± 0.3	$\pm 12 \sim 18$	$28+I_M$	6	-25~+85	240	$\phi 20$	2
HCB-200T													485	Busbar	11
HCB-200SF	200	± 300	100	0.8%	1:2000	17	120	± 0.3	$\pm 12 \sim 18$	$10+I_M$	3	-25~+85	105	$\phi 20$	1
HCB-200TF													350	Busbar	9
HCB-300S	300	± 500	150	0.5%	1:2000	5	50	± 0.3	$\pm 12 \sim 18$	$28+I_M$	6	-25~+85	240	$\phi 20$	2
HCB-300T													485	Busbar	11
HCB-300SF	300	± 450	150	0.8%	1:2000	2	50	± 0.3	$\pm 12 \sim 18$	$10+I_M$	3	-25~+85	105	$\phi 20$	1
HCB-300TF													350	Busbar	9
HCB-300SG	300	± 500	150	0.5%	1:2000	0	50	± 0.3	$\pm 12 \sim 18$	$28+I_M$	6	-25~+85	330	$\phi 35$	3
HCB-300TG													1000	Busbar	12
HCB-500S	500	± 1000	100	0.5%	1:5000	0	75	± 0.3	$\pm 15 \sim 24$	$35+I_M$	6	-25~+85	500	$\phi 25$	4
HCB-500T													1170	Busbar	13
HCB-500SG	500	± 750	100	0.5%	1:5000	0	75	± 0.3	$\pm 12 \sim 18$	$28+I_M$	6	-25~+85	330	$\phi 35$	3
HCB-500TG													1000	Busbar	12
HCB-600SN1	600	± 900	120	0.5%	1:5000	30	85	± 0.3	$\pm 15 \sim 24$	$35+I_M$	9	-25~+85	1080	$\phi 85$	10
HCB-1000SN1	1000	± 1500	200	0.5%	1:5000	30	85	± 0.3	$\pm 15 \sim 24$	$35+I_M$	9	-25~+85	1080	$\phi 85$	10
HCB-1000S	1000	1500	200	0.5%	1:5000	2	30	± 0.3	$\pm 15 \sim 24$	$25+I_M$	6	-25~+85	900	$\phi 40$	5
HCB-1000T													2190	Busbar	14
HCB-1000SH	1000	1500	200	0.5%	1:5000	2	30	± 0.3	$\pm 15 \sim 24$	$35+I_M$	6	-25~+85	700	$\phi 40$	6
HCB-1000TH													1990	Busbar	15
HCB-1500SN1	1500	± 2250	300	0.5%	1:5000	30	85	± 0.3	$\pm 15 \sim 24$	$35+I_M$	9	-25~+85	1080	$\phi 85$	10
HCB-2000SN1	2000	± 3000	400	0.5%	1:5000	30	85	± 0.3	$\pm 15 \sim 24$	$35+I_M$	9	-25~+85	1080	$\phi 85$	10
HCB-2000SJ	2000	3000	400	0.5%	1:5000	3	25	± 0.5	$\pm 15 \sim 24$	$30+I_M$	6	-25~+85	1800	$\phi 60$	7
HCB-2000TJ													6400	Busbar	16

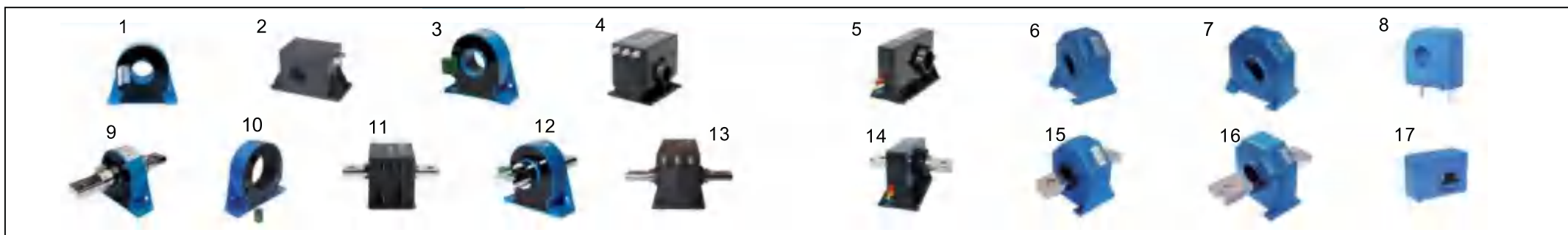


Fig. 1

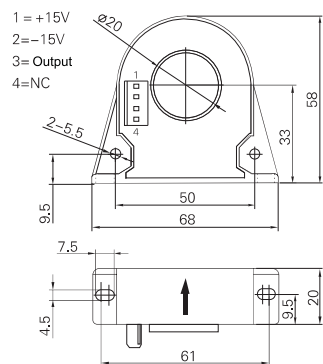


Fig. 2

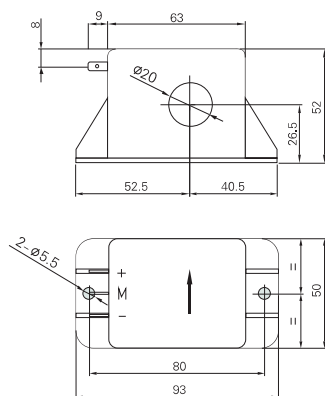


Fig. 3

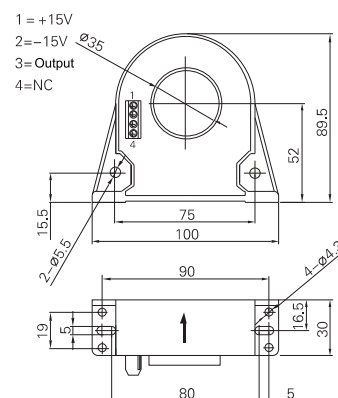


Fig. 4

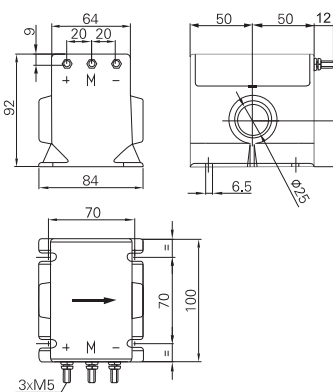


Fig. 5

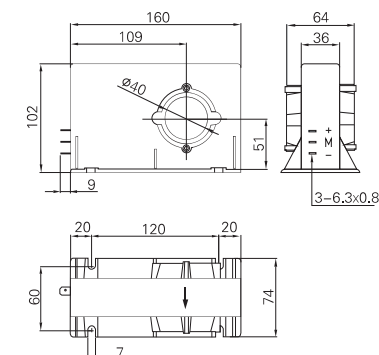


Fig. 6

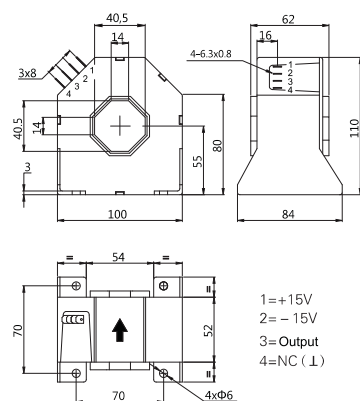


Fig. 7

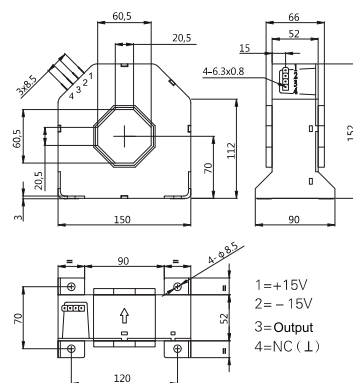


Fig. 8

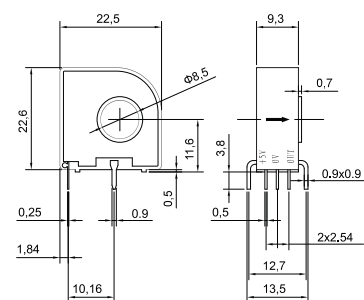


Fig. 9

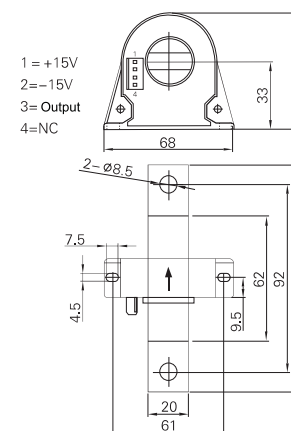


Fig. 10

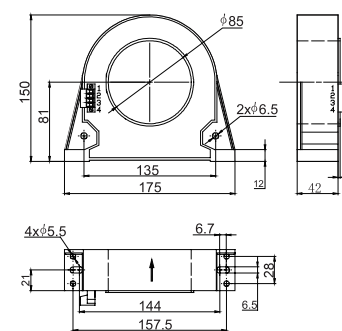


Fig. 11

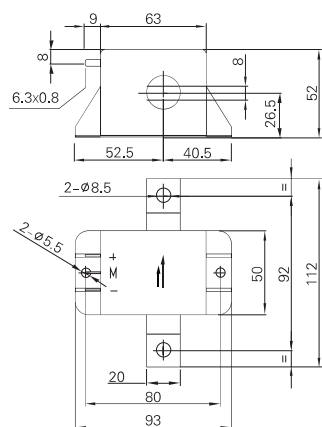


Fig. 12

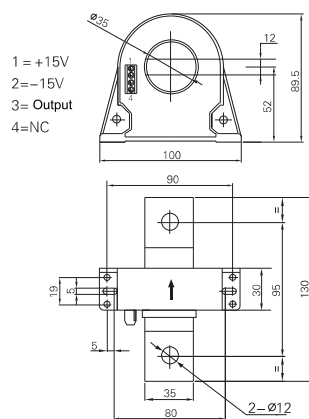


Fig. 13

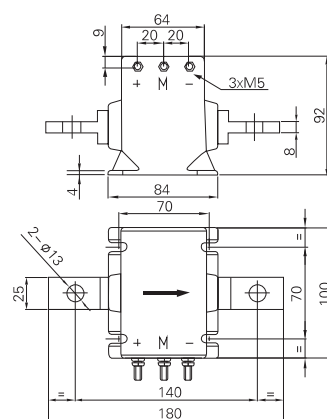


Fig. 14

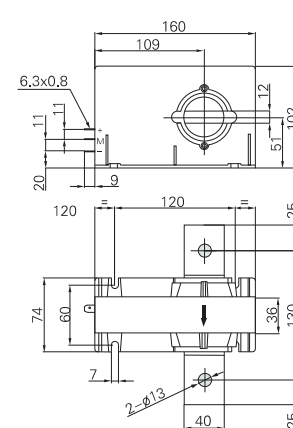


Fig. 15

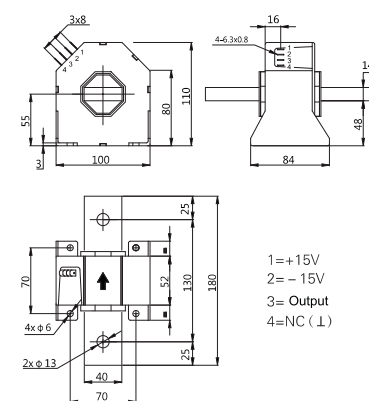


Fig. 16

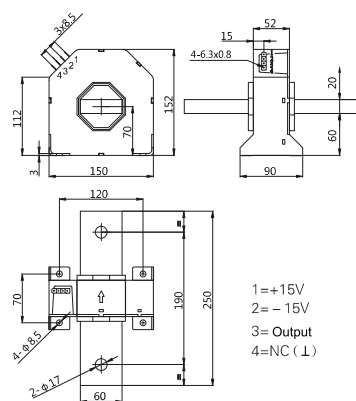
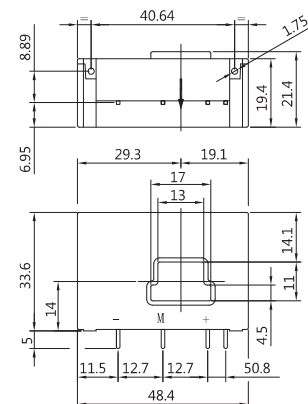


Fig. 17



I_N	Nominal current	V_{off}	Offset voltage
V_N	Nominal voltage	T_d	Temperature drift
I_b	Measuring range	L	Linearity
R_M	Measuring resistance	T_r	Response time
I_M	Output current	f	Frequency bandwidth
V_M	Output voltage	T_a	Operating temperature
K_N	Turns ratio	T_s	Storage temperature
X	Accuracy	I_c	Current consumption
V_c	Supply voltage	R_s	Secondary resistance
V_i	Isolation voltage	R_N	Primary resistance
I_{off}	Offset current	W	Weight

M	Output
M+	Output+
M-	Output-
NC	NO
IN	Input
IN+(+HT)	Input+
IN-(-HT)	Input-
+VN	Input voltage+
-VN	Input voltage-

Closed loop hall effect current sensor

HCB-0.5KA~100KA

Used to measure DC, AC, pulse current.... The measured current on the primary side is electrically isolated from the output current on the secondary side

Feature:

Test frequency: DC~20KHz

Accuracy: 0.2%~1%

Response time: Less than 1uS

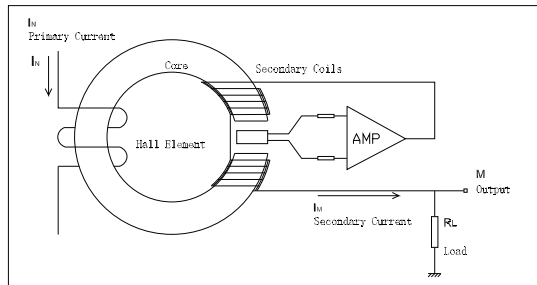
Linearity: 0.1%

No insertion loss measured

Measure AC, DC and pulse current

The primary current is highly isolated from the secondary output signal

Closed-loop Hall magnetic compensation principle manufacturing



Working principle:

Hall magnetic compensation principle: The magnetic field generated by the measured current I_N flowing through the conductor is compensated by the magnetic field generated by the secondary coil controlled by the compensation current I_M output signal of the Hall element. When the magnetic field of the primary and secondary sides reaches balance, the compensation current I_M can accurately reflect the I_N value of the primary side current.

Part No	Rated current		I_p (A)	I_m (mA)	Accuracy $T_a=25^\circ\text{C}$	Turns ratio	Load Resistance		I_{off} (mA)	V_c (V)	I_c (mA)	V_i (KV)	T_a ($^\circ\text{C}$)	W (g)	Input hole mm	Fig. No.
	I_N (A)dc	I_N (A)ac RMS					Ω min	Ω max								
HCB-05KE	500	400	± 600	100	0.4%	1:5000	0	20	± 0.6	± 24	220	6	-25~+85	4kg	114x114	1
HCB-1KE	1000	800	± 1200	200	0.4%	1:5000	0	20	± 0.6	± 24	340	6	-25~+85	4kg	114x114	1
HCB-2KE	2000	1600	± 2400	400	0.4%	1:5000	0	20	± 0.6	± 24	580	6	-25~+85	4kg	114x114	1
HCB-05KF	500	400	± 600	100	0.4%	1:5000	0	20	± 0.6	± 24	220	6	-25~+85	4kg	114x114	2
HCB-1KF	1000	800	± 1200	200	0.4%	1:5000	0	20	± 0.6	± 24	340	6	-25~+85	4kg	114x114	2
HCB-2KF	2000	1600	± 2400	400	0.4%	1:5000	0	20	± 0.6	± 24	580	6	-25~+85	4kg	114x114	2
HCB-2KB	2000	1600	± 2400	400	0.4%	1:5000	0	15	± 0.6	± 24	580	6	-25~+85	8kg	105x105	3
HCB-3KB	3000	2400	± 3600	600	0.4%	1:5000	0	5	± 0.6	± 24	820	6	-25~+85	8kg	105x105	3
HCB-4KB	4000	3200	± 4800	800	0.4%	1:5000	0	4	± 0.6	± 24	1060	6	-25~+85	8kg	105x105	3
HCB-5KB	5000	4000	± 6000	1000	0.4%	1:5000	0	4	± 0.6	± 24	1300	6	-25~+85	10kg	105x105	3
HCB-6KB	6000	4800	± 7200	1200	0.4%	1:5000	0	4	± 0.6	± 24	1540	6	-25~+85	13kg	105x105	3
HCB-4KD	4000	3200	± 4800	800	0.4%	1:5000	0	6.5	± 0.8	± 24	1060	6	-25~+85	17kg	154x154	6
HCB-8KD	8000	6400	± 9600	1600	0.4%	1:5000	0	3.5	± 0.8	± 24	2020	6	-25~+85	17kg	154x154	6
HCB-10KD	10000	8000	± 12000	2000	0.4%	1:5000	0	2	± 0.8	± 24	2500	6	-25~+85	17kg	154x154	6
HCB-12KD	12000	9600	± 14400	2400	0.4%	1:5000	0	2	± 0.8	± 36	2980	6	-25~+85	17kg	154x154	6
HCB-6KA	6000	4800	± 7200	1200	0.4%	1:5000	0	4.17	± 8	± 24	1540	6	-25~+85	40kg	250x250	4
HCB-10KA	10,000	8000	± 12000	2000	0.4%	1:5000	0	2.5	± 8	± 24	2500	6	-25~+85	40kg	250x250	4
HCB-15KA	15,000	12000	± 18000	3000	0.4%	1:5000	0	1.67	± 8	± 24	3700	6	-25~+85	40kg	250x250	4
HCB-20KA	20,000	16000	± 24000	4000	0.4%	1:5000	0	1.25	± 8	± 36	4900	6	-25~+85	40kg	250x250	4
HCB-25KA	25,000	20000	± 25000	5000	0.4%	1:5000	0	1	± 8	± 48	6100	6	-25~+85	40kg	250x250	4
HCB-40KA	40,000	32000	± 40000	8000	0.4%	1:5000	0	1	± 8	± 48	9700	6	-25~+85	90kg	554x554	5
HCB-50KA	50,000	40000	± 50000	10000	0.4%	1:5000	0	1	± 8	± 48	12100	6	-25~+85	90kg	554x554	5
HCB-100KA	100,000	80000	± 100000	20000	0.5%	1:5000	0	0.5	± 8	± 48	24100	10	-25~+85	120kg	1213x1213	8

Load resistance: HCB series Hall current sensor accessories

Part No	Rated resistance R_m (m Ω)	I_m (A)	V_H (V)	Accuracy $T_a=25^\circ\text{C}$	Rated power P_H (W)	V_i (KV)	T_a ($^\circ\text{C}$)	W (g)	Input	Fig. No.
R-*W10	25000/12500/8333	0.2/0.4/0.6	5	0.2%	10	1	-25~+85	1000	terminal	7
R-*W20	6250/5000/4167/3125/2780/2500	0.8/1/1.2/1.6/1.8/2	5	0.2%	20	1	-25~+85	2500	terminal	7
R-*W40	2083/1667/1250/1000	2.4/3/4/5	5	0.2%	40	1	-25~+85	2500	terminal	7

* : Rated resistance

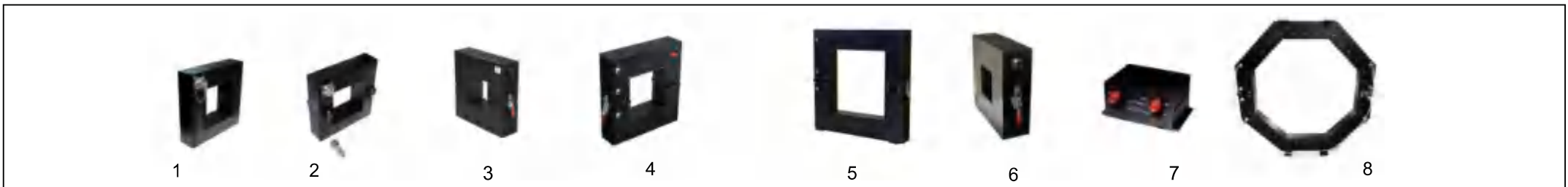
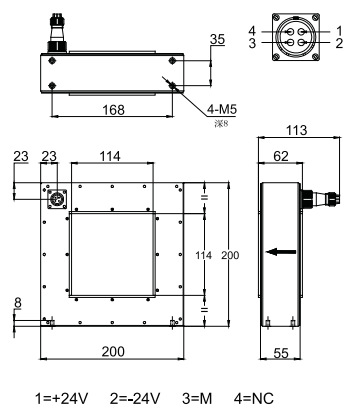
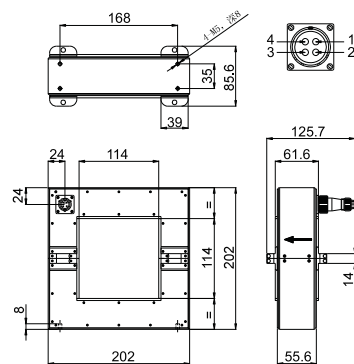


Fig. 1



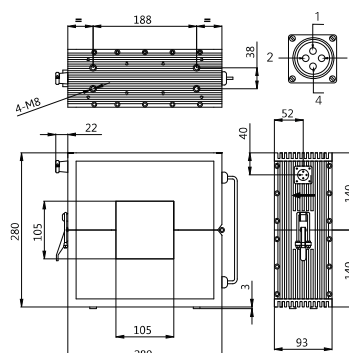
1=+24V 2=-24V 3=M 4=NC

Fig. 2



1=+24V 2=-24V 3=M 4=NC

Fig. 3



1=+24V 2=-24V 3=M 4=NC

Fig. 4

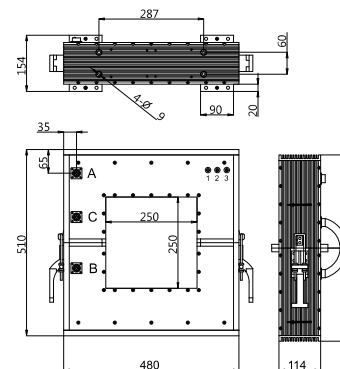


Fig. 5

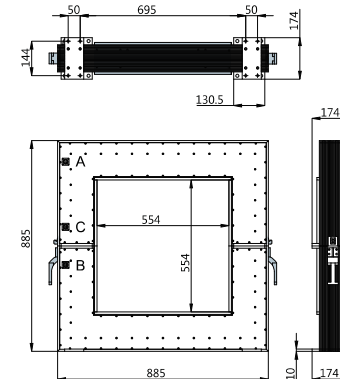
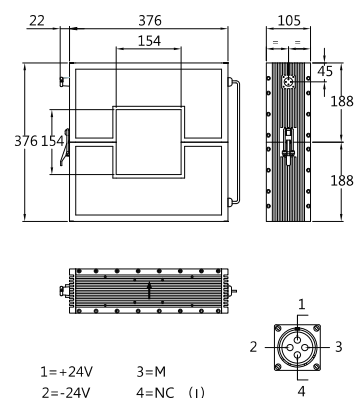
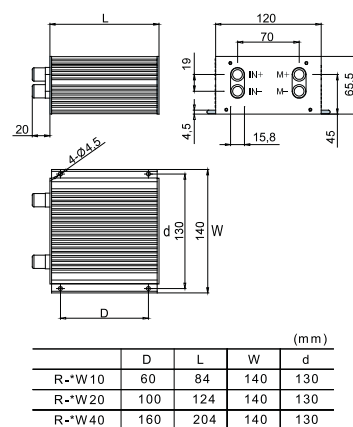


Fig. 6



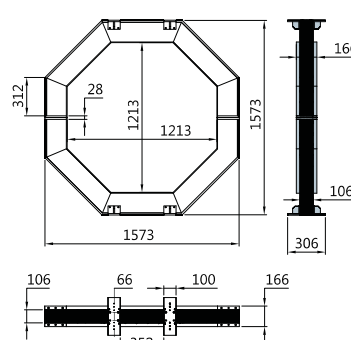
1=+24V 3=M
2=-24V 4=NC (L)

Fig. 7



	D	L	W	d
R-W10	60	84	140	130
R-W20	100	124	140	130
R-W40	160	204	140	130

Fig. 8



IN	Nominal current	Voff	Offset voltage
VN	Nominal voltage	Td	Temperature drift
Ip	Measuring range	L	Linearity
RM	Measuring resistance	Tr	Response time
Im	Output current	f	Frequency bandwidth
Vm	Output voltage	Ta	Operating temperature
KN	Turns ratio	Ts	Storage temperature
X	Accuracy	Ic	Current consumption
Vc	Supply voltage	Rs	Secondary resistance
Vi	Isolation voltage	RN	Primary resistance
Ioff	Offset current	W	Weight

M	Output
M+	Output+
M-	Output-
NC	NO
IN	Input
IN+(+HT)	Input+
IN-(-HT)	Input-
+VN	Input voltage+
-VN	Input voltage-