

## HBI412S91

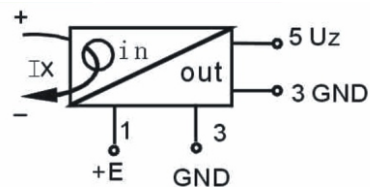


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX24mmX66mm

HBI412S91 converts AC input voltage into a load independent output signal DC voltage 0~5V or 0~10V. The product has certain advantages of total galvanic isolation between input/output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~5A...0~50A
Output:	DC 0~5V or 0~10V
Frequency:	25Hz~5KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting or screw mounting comercial/Industrial/military grade for choose



## HBI414S91

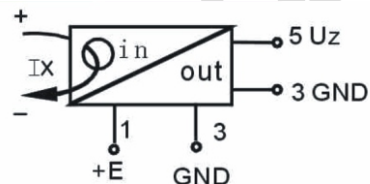


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX24mmX66mm

HBI414S91 converts AC input voltage into a load independent output signal DC voltage 4~20mA or 0~20mA. The product has certain advantages of total galvanic isolation between input/output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~5A...0~50A
Output:	DC 4~20mA or 0~20mA
Frequency:	25Hz~5KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.5%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting or screw mounting comercial/Industrial/military grade for choose



## HBI415S91

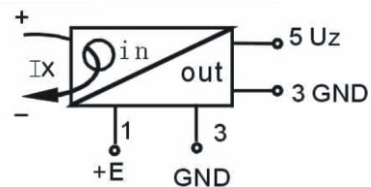


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX24mmX66mm

HBI415S91 converts AC input current into a load independent output signal RMS 0~5V. It has adopted electromagnetic isolation principle and RMS measurement method for real time measurement of AC current (in any wave form) from electric net or electric circuit. The product has certain advantages of total galvanic isolation between input and output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~5A...0~50A
Output:	RMS 0~5V
Frequency:	25Hz~1KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting/Screw mounting commercial/Industrial/military grade for choose



## HBI417U01

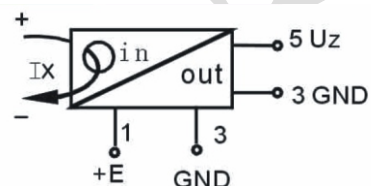


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX24mmX66mm

HBI417U01 converts AC input current into a load independent output signal RMS 4~20mA or 0~20mA. It has adopted electromagnetic isolation principle and RMS measurement method for real time measurement of AC current (in any wave form) from electric net or electric circuit. The product has certain advantages of total galvanic isolation between input and output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~5A...0~50A
Output:	RMS 0~20mA or 4~20mA
Frequency:	25Hz~1KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting/Screw mounting commercial/Industrial/military grade for choose



## HBI412F21

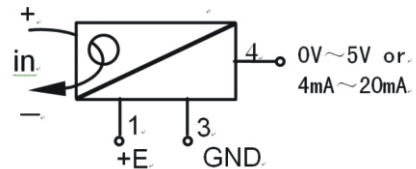


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 107mmX24mmX60mm

HBI412F21 converts AC input current into a load independent output signal DC voltage 0~5V or 0~10V. The product has certain advantages of total galvanic isolation between input/output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc

### Technical indicators:

Input:	AC 0~30A...0~400A
Output:	DC 0~5V or 0~10V
Frequency:	25Hz~5KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting or screw mounting comercial/Industrial/military grade for choose



## HBI414F21

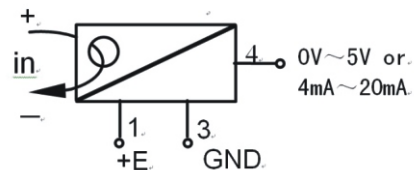


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 107mmX24mmX60mm

HBI414F21 converts AC input current into a load independent output signal DC 4~20mA. The product has certain advantages of total galvanic isolation between input/output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~30A...0~400A
Output:	DC 4~20mA or 0~20mA
Frequency:	25Hz~5KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.5%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting or screw mounting comercial/Industrial/military grade for choose



## HBI414U01

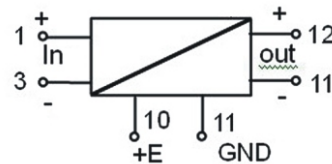


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

HBI414U01 converts AC input current into a load independent output signal DC 4~20mA. The product has certain advantages of total galvanic isolation between input/output and auxiliary power, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~5A
Output:	DC 4~20mA or 0~20mA
Frequency:	25Hz~5KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.5%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting
	commercial/Industrial/military grade for choose



## HBI414U09

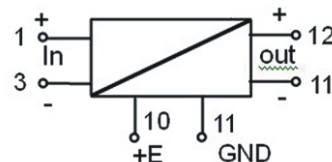


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

HBI414U09 converts AC input current into a load independent output signal DC 4~20mA. It has adopted electromagnetic isolation principle for real time measurement of AC current (sine wave form) from electric net or electric circuit. The product has certain advantages of total galvanic isolation between input/output and auxiliary power, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~0.5A...0~5A
Output:	DC 0~20mA or 4~20mA
Frequency:	25Hz~5KHz
Power supply:	AC 165V~265V or DC 230V~360V
Accuracy:	0.2%
Isolation:	input/output/power
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting
	commercial/Industrial/military grade for choose





## HBI412U01

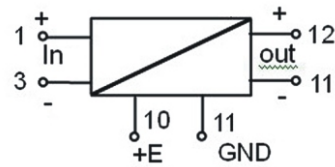


- AC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

HBI412U01 converts AC input current into a load independent output signal DC voltage 0~5V or 0~10V. The product has certain advantages of total galvanic isolation between input/output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input:	AC 0~5A
Output:	DC 0~5V or 0~10V
Frequency:	25Hz~5KHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	300ms
Mount:	35mm DIN rail mounting comercial/Industrial/military grade for choose



## AC Current transducer

### HCY-0.5A~8000A(AC)

It is used to measure AC current and output DC standard signal.  
The measured current on the primary side is electrically isolated from the output signal on the secondary side.

**Feature:**

Test frequency: 50KHz(400Hz)

Response time: less than 350mS

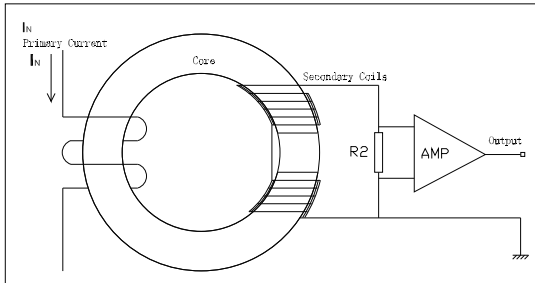
Linearity: 0.5%

No insertion loss measured

It is used to measure AC current and output DC standard signal.

The primary current is highly isolated from the secondary output signal

Low power consumption, single power supply, wide range of power supply



**Working principle:**

When the measured current flows through the conductor, a magnetic field in direct proportion to the current is generated around the conductor. The magnetic field is measured by the secondary coil, and its output voltage is proportional to the measured current. It is amplified and filtered by the electronic circuit and calibrated to the required standard signal, which accurately reflects the effective value of the primary current.

### HCY Series AC current transducer

Part No	Rated input current I <sub>N</sub> (A)	f (HZ)	I <sub>r</sub> (A)	V <sub>m</sub> (V)orI <sub>m</sub> (mA)	T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCY-*AP/#	0.5/1/3/5	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	3	-25~+85	240	PCB	17
HCY-*AS/#	5/50/100/200/300/400	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	6	-25~+85	240	φ 20	1
HCY-*AF/#	5/50/100/200/300	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	3	-25~+85	105	φ 20	10
HCY-*AG/#	5/50/100/200/300/500	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	6	-25~+85	360	φ 35	11
HCY-*AR/#	50/100/200/400/600/1000/2000	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	5	-25~+85	290	φ 40	9
HCY-*AT/#	100/200/300/500/1000/1500	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	6	-25~+85	900	φ 40	2
HCY-*AH/#	300/500/1000	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	6	-25~+85	700	φ 40	3
HCY-*AJ/#	200/500/1000/1500/2000	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	6	-25~+85	1800	φ 60	4
HCY-*Y31/#	200/400/600/800/1000	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	5	-25~+85	260	16x64	6
HCY-*Y2/#	500/1000/2000/3000/3500	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	5	-25~+85	550	23x103.5	7
HCY-*Y21/#	1000/2000/3000	AC	I <sub>N</sub> x120%	#	0.5%	±30	24	30	5	-25~+85	660	40x103.5	8
HCY-*Y1/#	1000/3000/5000/8000	AC	I <sub>N</sub> x120%	#	1.0%	±30	24	30	5	-25~+85	800	50x165	14
HCY-*Y11/#	1000/3000/6000	AC	I <sub>N</sub> x120%	#	1.0%	±30	24	30	5	-25~+85	1100	78x165	15
HCY-*Y0/#	1000/2000/3000	AC	I <sub>N</sub> x120%	#	1.0%	±30	24	30	5	-25~+85	600	20.5x165	16
HCY-*Y01/#	500/1000/2000/3000/4000	AC	I <sub>N</sub> x120%	#	1.0%	±30	24	30	5	-25~+85	600	20.5x205	5

### HCY Series AC current transducer(two-wire system 4~20mA output)

Part No	Rated input current I <sub>N</sub> (A)	f (HZ)	I <sub>r</sub> (A)	V <sub>m</sub> (V)orI <sub>m</sub> (mA)	T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCY-*AF/A4	5/50/100/200/300	AC	I <sub>N</sub> x120%	4~20mA	0.5%	± 0.2	24	30	3	-25~+85	105	φ 20	10
HCY-*AG/A4	5/50/100/200/300/500	AC	I <sub>N</sub> x120%	4~20mA	0.5%	± 0.2	24	30	6	-25~+85	360	φ 35	11

### HCY Series AC current transducer(passive)

Part No	Rated input current I <sub>N</sub> (A)	f (HZ)	I <sub>r</sub> (A)	V <sub>m</sub> (V)orI <sub>m</sub> (mA)	T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCY-*AE	5/10/30/50/100	AC	I <sub>N</sub> x120%	5V	1.0%	0	--	--	1	-25~+85	20	φ12	12
HCY-*AF	5/50/100/200/300	AC	I <sub>N</sub> x120%	5V	0.5%	0	--	--	3	-25~+85	105	φ20	13
HCY-*AG	5/50/100/200/300/500	AC	I <sub>N</sub> x120%	5V	0.5%	0	--	--	6	-25~+85	360	φ35	11

\* : Rated input current # : Rated output current or voltage

### Output DC standard signal code

#	A0	A1	A2	V0	V1	V2
Output	0~20mA	4~20mA	0~10mA	0~5V	1~5V	0~10V

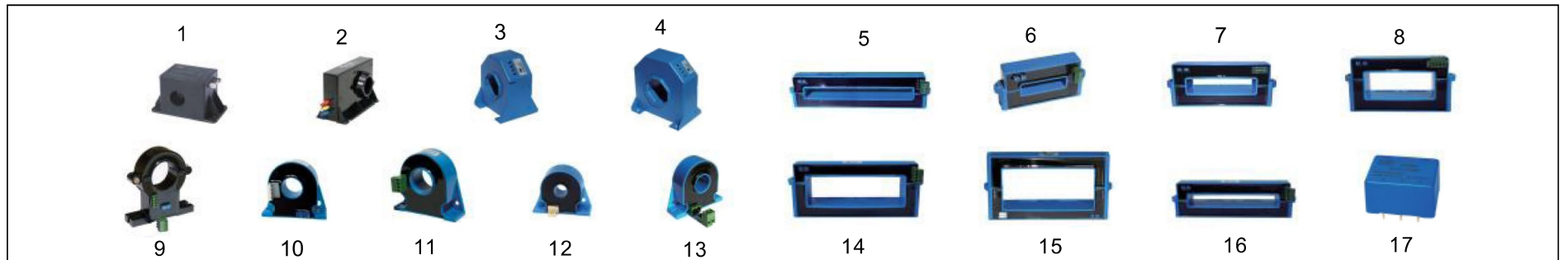


Fig. 1

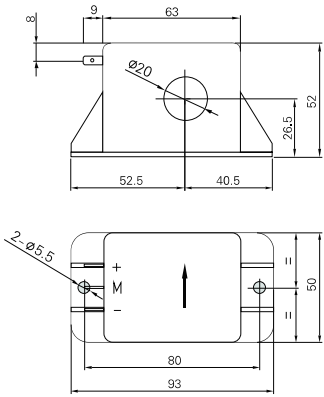


Fig. 2

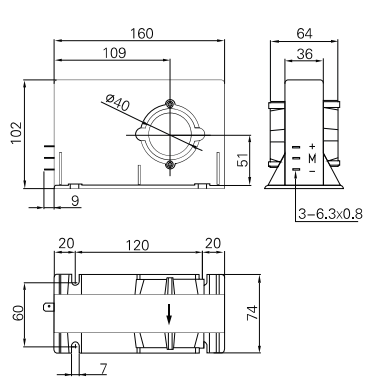


Fig. 3

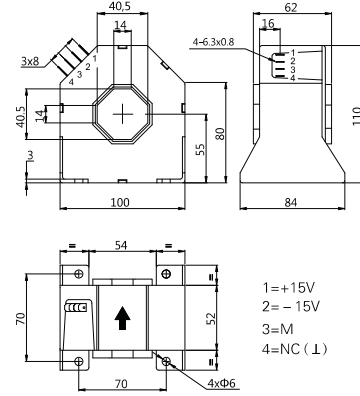


Fig. 4

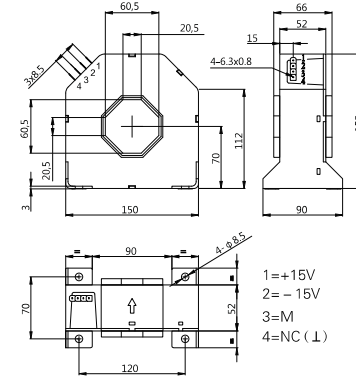


Fig. 5

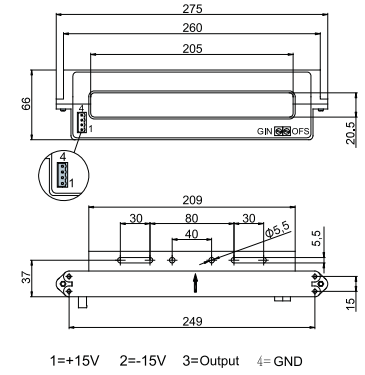


Fig. 6

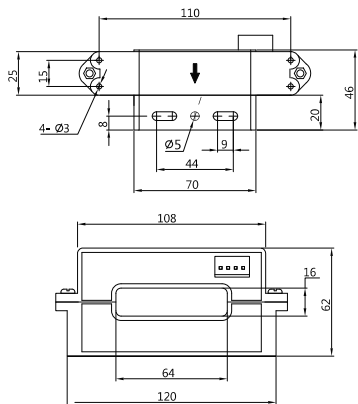


Fig. 7

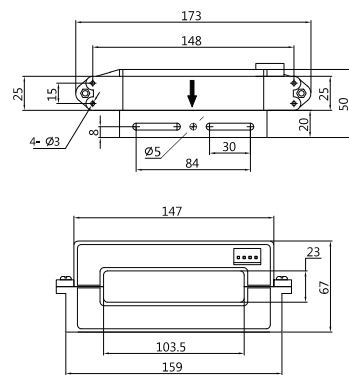


Fig. 8

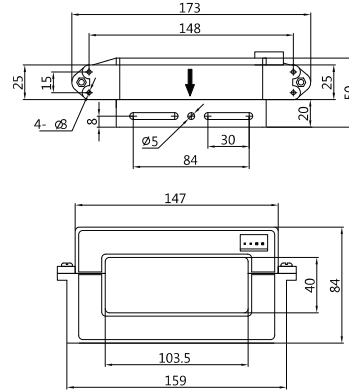


Fig. 9

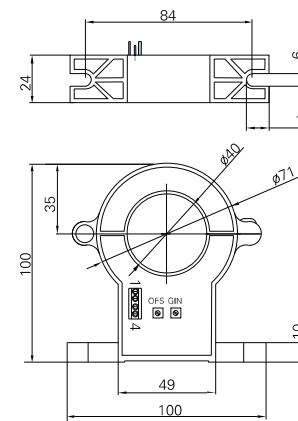


Fig. 10

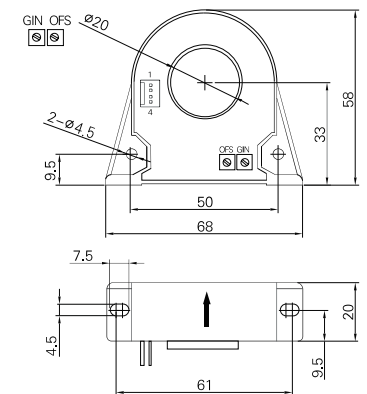


Fig. 11

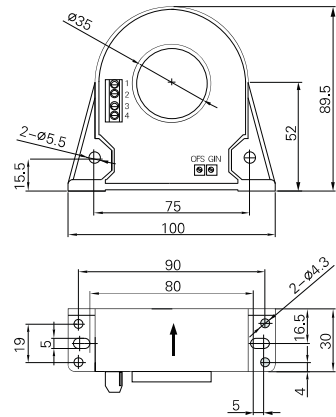


Fig. 12

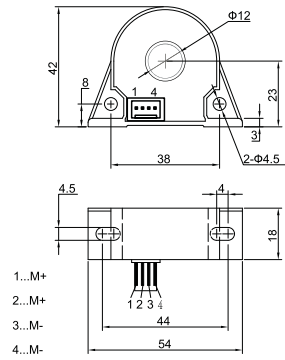


Fig. 13

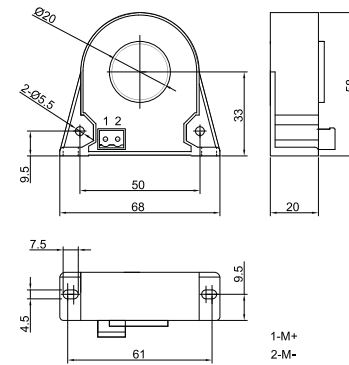


Fig. 14

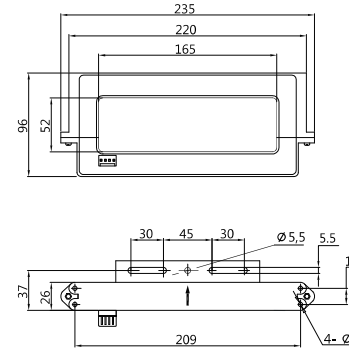


Fig. 15

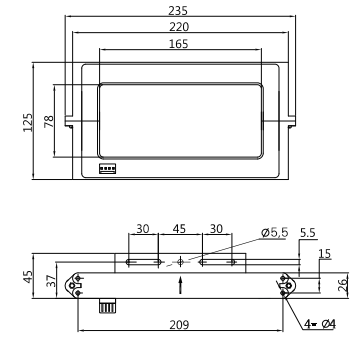


Fig. 16

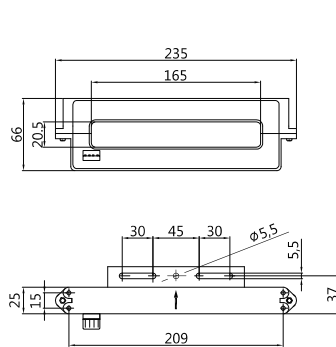
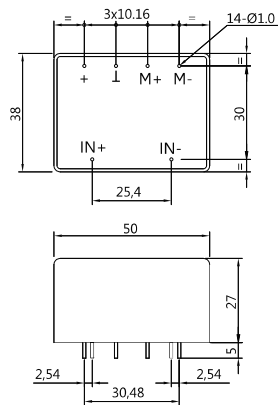


Fig. 17



IN	Nominal current	Voff	Offset voltage
V <sub>N</sub>	Nominal voltage	Td	Temperature drift
I <sub>p</sub>	Measuring range	L	Linearity
R <sub>M</sub>	Measuring resistance	Tr	Response time
I <sub>M</sub>	Output current	f	Frequency bandwidth
V <sub>M</sub>	Output voltage	Ta	Operating temperature
K <sub>N</sub>	Turns ratio	Ts	Storage temperature
X	Accuracy	Ic	Current consumption
Vc	Supply voltage	Rs	Secondary resistance
Vi	Isolation voltage	R <sub>N</sub>	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-

## HBI02-KB1



- DC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell

### Technical indicators:

Measuring range: DC 0~20A...0~300A

Output: DC  $\pm 5V$ , 0~5(10)V, (0)4~20mA

Power supply:  $\pm 12v$ , +12v, +24v

Isolation: Input/output

DIN rail mounting, or screw mounting.

## HBI33-U01



- DC current measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

HBI33-U01 converts DC input current into a load independent output signal DC voltage 0~5(10)V or (0) 4~20mA. The product has certain advantages of total galvanic isolation between input/output, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

### Technical indicators:

Input: DC 0~1mA...0~5A

Output: DC 0~5 ( 10 ) V or ( 0 ) 4~20mA

Power supply: +12VDC/+24VDC

Accuracy: Voltage output 0.2% , Current output 0.5%

Isolation: input/output

Insulation Voltage: 2500VDC, 1 min

Response time: 150ms

Mount: 35mm DIN rail mounting



## DC Current transducer

### HCZ- 0.02A~10000A(DC)

It is used to measure DC current and output DC standard signal. The measured current on the primary side is electrically isolated from the output signal on the secondary side.

Feature:

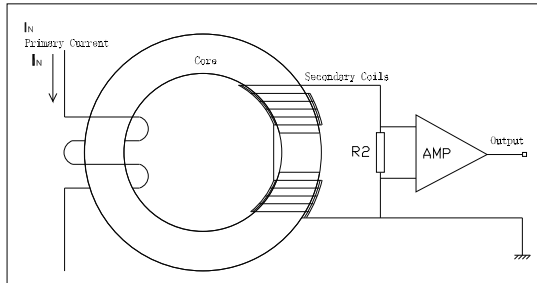
Test frequency:DC  
 Response time: less than 350mS  
 Linearity: 0.5%

No insertion loss measured

It is used to measure DC current and output DC standard signal.

The primary current is highly isolated from the secondary output signal

Low power consumption, single power supply, wide range of power supply



Working principle:

When the measured current flows through the conductor, a magnetic field in direct proportion to the current is generated around the conductor. The magnetic field is measured by the secondary coil, and its output voltage is proportional to the measured current. It is amplified and filtered by the electronic circuit and calibrated to the required standard signal, which accurately reflects the effective value of the primary current.

### HCZ Series DC current transducer

Part No	Rated input current I <sub>N</sub> (A)	f (HZ)	I <sub>F</sub> (A)	V <sub>M</sub> (V)orI <sub>M</sub> (mA)	T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCZ-*AP/#	0.5/1/5/10/20/30	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	90	2.5	-25~+85	240	PCB	89
HCZ-*AD/#	0.02/0.05/0.1/0.5/1/5/8/10	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	90	2.5	-25~+85	240	terminal	01
HCZ-*AD/#	15/20/30	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	90	2.5	-25~+85	240	terminal	05
HCZ-*S/#	5/20/50/100/200/300	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	30	6	-25~+85	240	φ 20	50
HCZ-*G/#	50/100/200/400/500/600	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	30	6	-25~+85	360	φ 35	45
HCZ-*T/#	100/200/300/500/1000	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	30	6	-25~+85	900	φ 40	17
HCZ-*H/#	300/500/1000/1500	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	30	6	-25~+85	700	φ 40	19
HCZ-*J/#	500/1000/1500/2000	DC	I <sub>N</sub> ×120%	#	0.5%	±30	24	30	6	-25~+85	2800	φ 60	23

### HCZ Series DC current transducer(split core)

Part No	Rated input current I <sub>N</sub> (A)	f (HZ)	I <sub>F</sub> (A)	V <sub>M</sub> (V)orI <sub>M</sub> (mA)	T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCZ-*Y31/#	100/200/400/600/800/1000	DC	I <sub>N</sub> ×120%	#	1.0%	±30	24	30	5	-25~+85	260	16x64	77
HCZ-*Y2/#	500/1000/2000/3000/3500	DC	I <sub>N</sub> ×120%	#	1.0%	±30	24	30	5	-25~+85	550	23x103.5	78
HCZ-*Y21/#	600/1000/2000/3000/6000	DC	I <sub>N</sub> ×120%	#	1.0%	±30	24	30	5	-25~+85	660	40x103.5	79
HCZ-*Y1/#	1000/1500/2000/3000/5000/6000/10000	DC	I <sub>N</sub> ×120%	#	1.0%	±30	24	30	5	-25~+85	800	50x165	80
HCZ-*Y11/#	1000/3000/6000/10000	DC	I <sub>N</sub> ×120%	#	1.0%	±30	24	30	5	-25~+85	1100	78x165	81
HCZ-*Y0/#	500/1000/2000/3000/3500	DC	I <sub>N</sub> ×120%	#	1.0%	±30	24	30	5	-25~+85	550	20.5x165	82
HCZ-*Y01/#	500/1000/2000/3000/4000	DC	I <sub>N</sub> ×120%	#	1.0%	±30	24	30	5	-25~+85	1000	20.5x205	67

\* : Rated input current # : Rated output current or voltage

### Output standard signal code

#	A0	A1	A2	V0	V1	V2
Output	0~20mA	4~20mA	0~10mA	0~5V	1~5V	0~10V

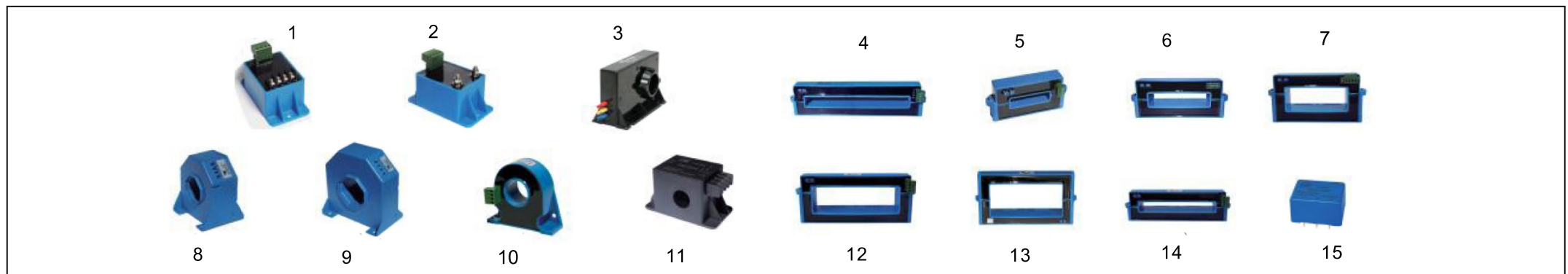


Fig. 1

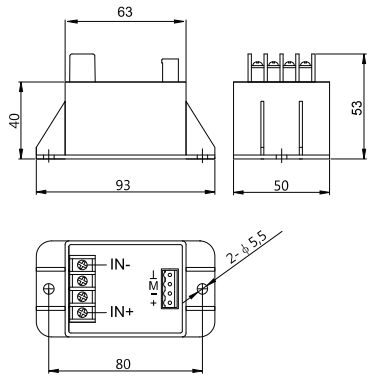


Fig. 2

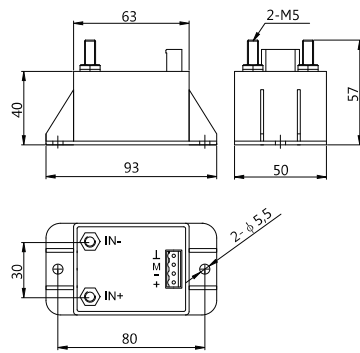


Fig. 3

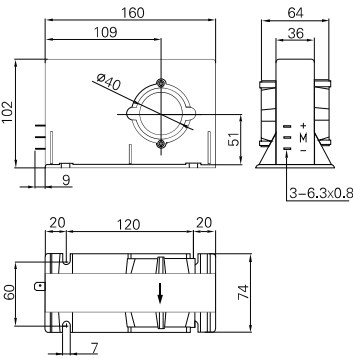


Fig. 4

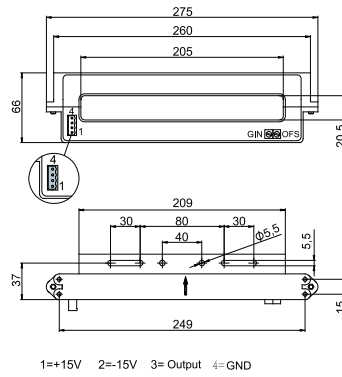


Fig. 5

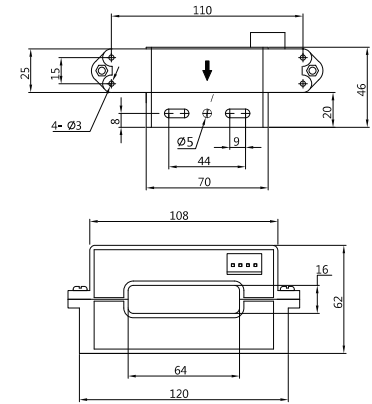


Fig. 6

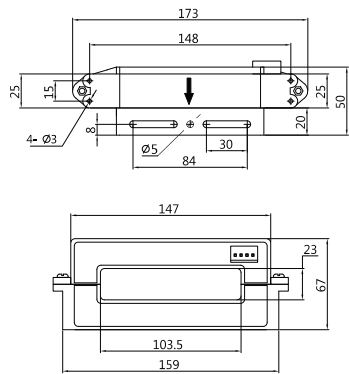


Fig. 7

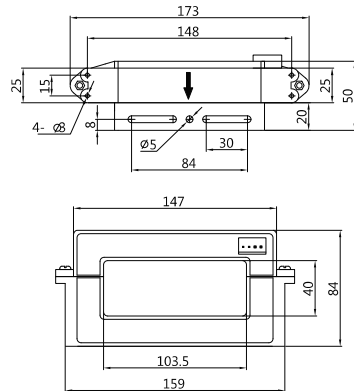


Fig. 8

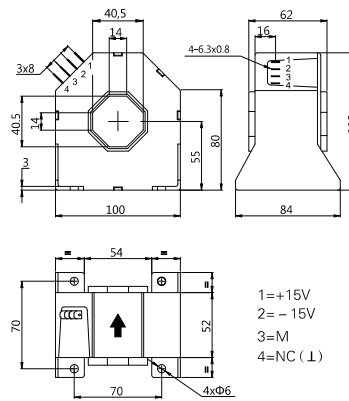


Fig. 9

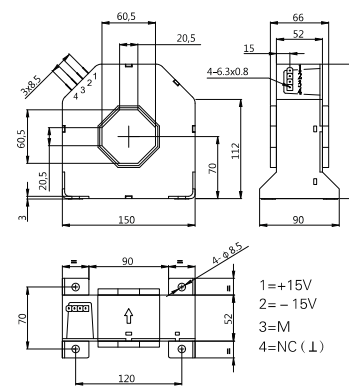


Fig. 10

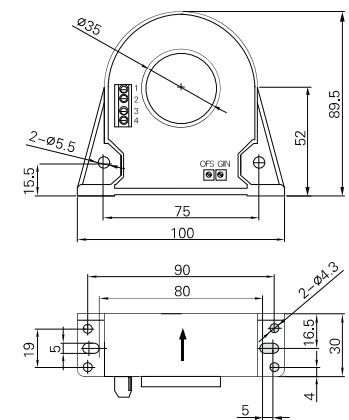


Fig. 11

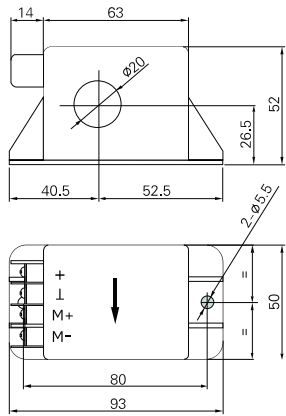


Fig. 12

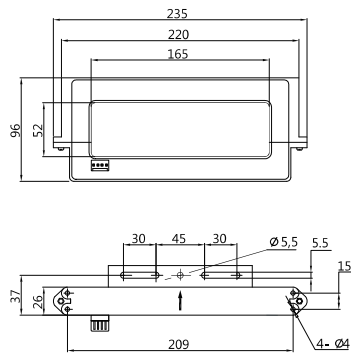


Fig. 13

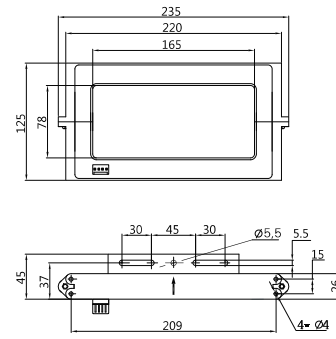


Fig. 14

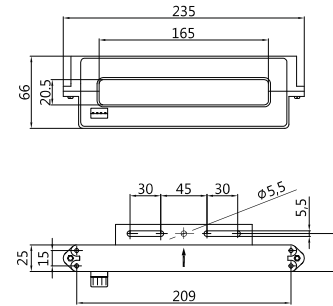
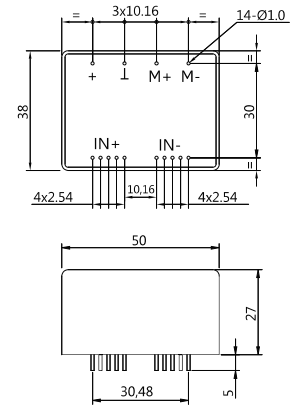


Fig. 15



$I_N$	Nominal current	$V_{off}$	Offset voltage
$V_N$	Nominal voltage	$T_d$	Temperature drift
$I_p$	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-

## Precision current transformer

### HCG 2mA~2000A

### HCG-V 50V~600V

Used to measure AC current or voltage, the measured current (voltage) on the primary side is electrically isolated from the output current (voltage) on the secondary side

Feature:

Test frequency: 50Hz (400Hz~20KHz)

Response time: less than 10uS

Linearity: 0.1%~0.5%

No insertion loss measured

Used to measure AC current or voltage

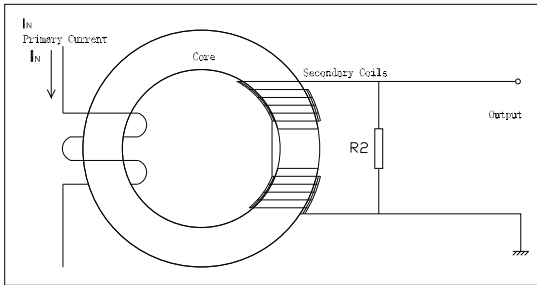
The primary current(voltage) is highly isolated from the secondary output signal

Passive

### HCG series precision current transformer

Part No	Rated current I <sub>N</sub> (A)AC	f (Hz)	I <sub>P</sub> (A)AC	Output current I <sub>M</sub> (mA)AC	Accuracy T <sub>a</sub> =25°C	Turns ratio K <sub>N</sub>	Output voltage V <sub>M</sub> (V)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCG-500	20	50/400	24	40	0.5%	1:500	<2	3	-40~+85	60	φ 9	2
HCG-1000	40	50/400	48	40	0.5%	1:1000	<2	3	-40~+85	60	φ 9	2
HCG-*M	1...25	50/400	30	I <sub>N</sub> /K <sub>N</sub>	0.2%	1:500 (1000、2000、2500)	<2	2	-40~+85	15	φ 6.8	1
HCG-*E	20...100	400...20K	120	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:200(500、1000)	<2	2	-40~+85	55	φ 12	3
HCG-*EB	5...100	50/400	120	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:500(1000)	<2	2	-40~+85	55	φ 12	3
HCG-*F	5...200	400...20K	240	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:500(1000、2000)	<2	3	-40~+85	105	φ 20	6
HCG-*FB	5...200	5...200	240	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:500(1000、2000)	<2	3	-40~+85	105	φ 20	6
HCG-*G	100...500	50/400	600	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:1000(2000、3000、4000、5000)	<2	6	-40~+85	360	φ 35	10
HCG-*K	100...1000	50/400	1200	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:1000(2000、3000、4000、5000)	<2	6	-40~+85	700	φ 45	11
HCG-*L	100...1500	50/400	1800	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:1000(2000、3000、4000、5000)	<2	6	-40~+85	700	φ 55	12
HCG-*N	100...2000	50/400	2400	I <sub>N</sub> /K <sub>N</sub>	0.5%	1:1000(2000、3000、4000、5000)	<2	6	-40~+85	760	φ 72	15
HCG010	5/10/20/50/75/100	50	I <sub>N</sub> ×120%	IN/3000	1.0%	1:3000	<2	2.5	-15~+60	55	φ 10	4
HCG016	70/100/150	50	I <sub>N</sub> ×120%	IN/3000	1.0%	1:3000	<2	2.5	-15~+60	95	φ 16	4
HCG024	100/150/200/250	50	I <sub>N</sub> ×120%	IN/3000	1.0%	1:3000	<2	2.5	-15~+60	200	φ 24	4

\* : Turns ratio



Working principle:

When the measured current flows through the conductor, a magnetic field is generated around the conductor in direct proportion to the current. The magnetic field is measured by the secondary coil, and its output current or voltage is proportional to the measured current. This signal accurately reflects the Valid value of the primary current

### HCG series precision current transformer

Part No	Rated current I <sub>N</sub> (A)AC	f (Hz)	I <sub>P</sub> (A)AC	Output voltage V <sub>M</sub> (V) AC	Accuracy T <sub>a</sub> =25°C	Turns ratio K <sub>N</sub>	Output voltage V <sub>M</sub> (V)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCG-*AE	5/10/50	50	I <sub>N</sub> ×100%	5V	0.5%	1:1000 (2000)	...	2	-40~+85	50	φ 12	3
HCG-*AF	50/100/200	50	I <sub>N</sub> ×100%	5V	0.5%	1:2000	...	3	-40~+85	105	φ 20	13
HCG-*AG	100/200/300/400/500	50	I <sub>N</sub> ×100%	5V	0.5%	1:1000(2000、3000、4000、5000)	...	6	-40~+85	250	φ 35	10
HCG-*AK	200/400/600/800/1000	50	I <sub>N</sub> ×100%	5V	0.5%	1:1000(2000、3000、4000、5000)	...	6	-40~+85	700	φ 45	11
HCG-*AL	300/600/900/1200/1500	50	I <sub>N</sub> ×100%	5V	0.5%	1:1000(2000、3000、4000、5000)	...	6	-40~+85	700	φ 55	12
HCG-*AH	400/800/1200/1600/2000	50	I <sub>N</sub> ×100%	5V	0.5%	1:1000(2000、3000、4000、5000)	...	6	-40~+85	760	φ 72	15

\* : Rated input current

### HCG-V series precision voltage transformer

Part No	Rated voltage I <sub>N</sub> (A)AC	f (Hz)	I <sub>P</sub> (A)AC	Output voltage V <sub>M</sub> (V) AC	Accuracy T <sub>a</sub> =25°C	Turns ratio K <sub>N</sub>	Output voltage V <sub>M</sub> (V)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm	Fig. No.
HCG-V-2MA	2mA	50	4mA	2mA	0.5%	1:1	<1	2.5	-40~+85	6	PCB	5
HCG-V-*A	50/100/200	50	V <sub>N</sub> ×120%	5V	0.5%	...	...	2.5	-40~+85	70	PCB	7
HCG-V-*B	300/400	50	V <sub>N</sub> ×120%	5V	0.5%	...	...	2.5	-40~+85	90	PCB	8
HCG-V-600C	600	50	720	5V	0.5%	...	...	3	-40~+85	205	PCB	9
HCG-V-*S	50/100/300/500	50	V <sub>N</sub> ×120%	5V	0.5%	...	...	2.5	-40~+85	240	Terminal	14

\* : Rated input voltage

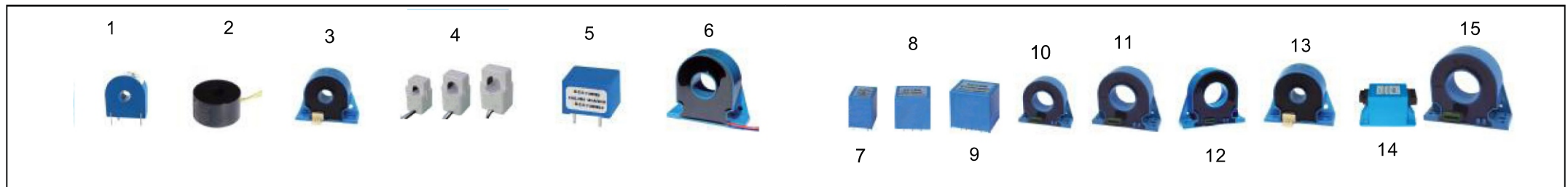


Fig. 1

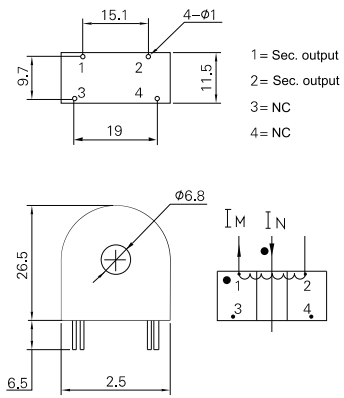


Fig. 2

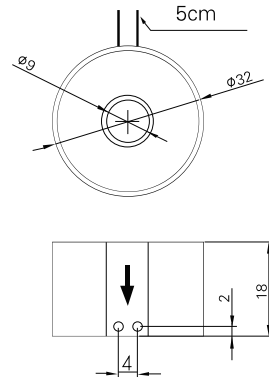
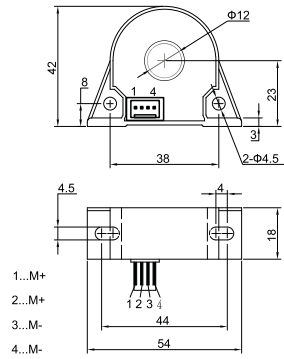
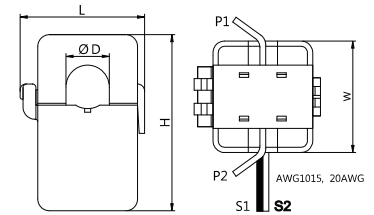


Fig. 3



HCG-EB (E) Output Lead wire 500mm, Red M+ , Blue M-

Fig. 4



	(mm)			
	D	L	W	H
HCG010	10.0	29.4	26.4	41.7
HCG016	16.0	36.9	39.2	52.9
HCG024	24.0	51.2	47.0	70.2

Fig. 5

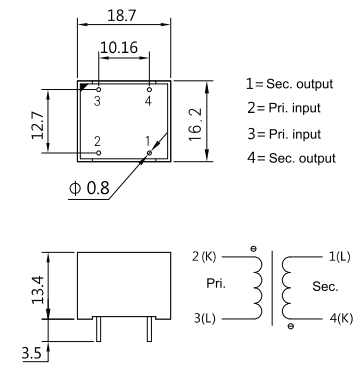
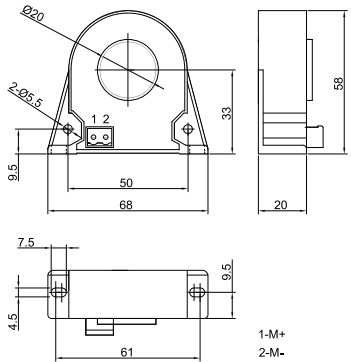


Fig. 6



HCG-F(B) Output Lead wire 500mm, Red M+ , Blue M-

Fig. 7

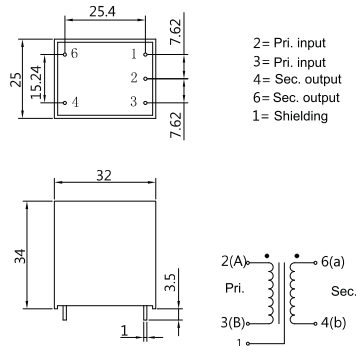


Fig. 8

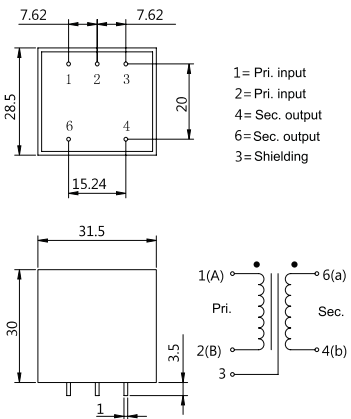


Fig. 9

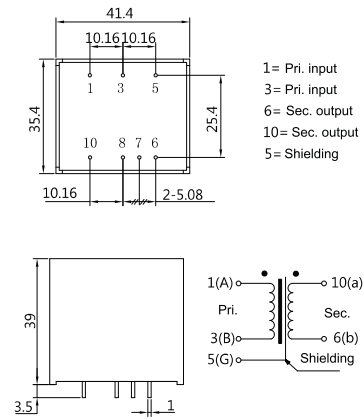
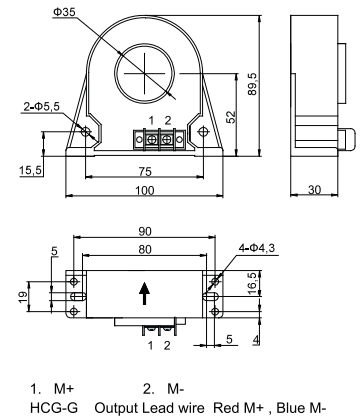


Fig. 10



1. M+ 2. M-  
HCG-G Output Lead wire Red M+ , Blue M-



Fig. 11

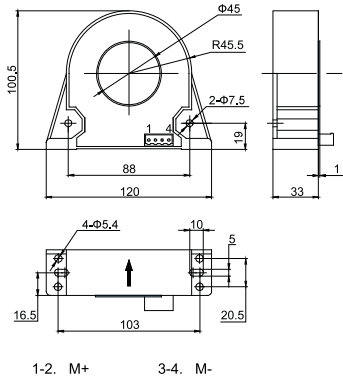


Fig. 12

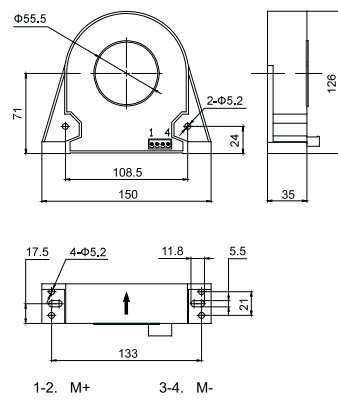


Fig. 13

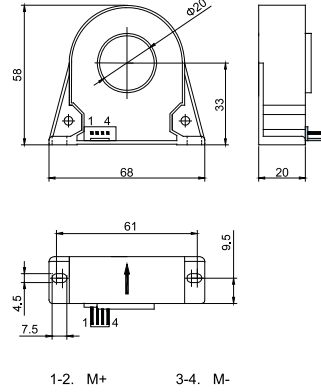


Fig. 14

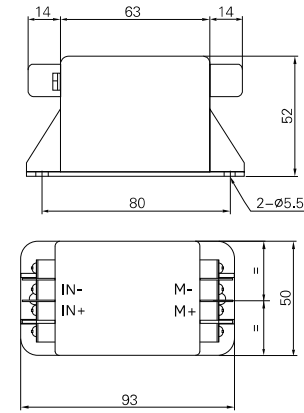
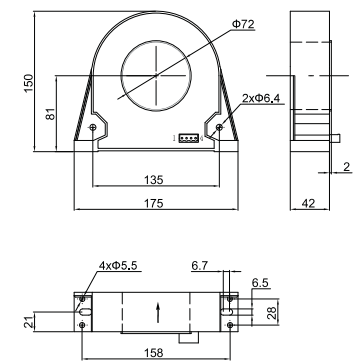


Fig. 15



$I_N$	Nominal current	$V_{off}$	Offset voltage
$V_N$	Nominal voltage	$T_d$	Temperature drift
$I_p$	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-

## Multi-range precision current sensor

### HCJ-5/2KB

Multi-range precision current sensor for measuring DC, AC and pulse current, the measured current on the primary side is electrically isolated from the output current on the secondary side

**Feature:**

- Multi range: 5-2000A RMS (DC, AC, pulse current)
- Measurement frequency: DC~50KHz
- Accuracy (25°C):±0.2%
- Response time:<1uS
- Linearity:<0.1%
- Can simultaneously measure DC, AC, and pulse currents
- High isolation between primary current and secondary output signal
- Manufacturing of closed-loop Hall magnetic compensation principle

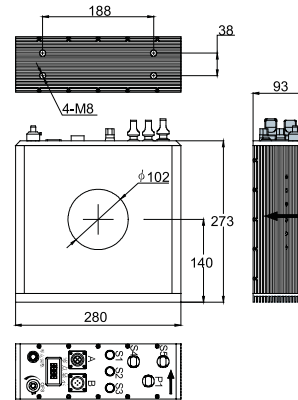
HCJ Series hall effect current sensor

Part No	Rated current I <sub>N</sub> (A)	I <sub>r</sub> (A)	I <sub>m</sub> (mA)	Accuracy T <sub>a</sub> =25°C	Turns ratio K <sub>N</sub>	Load Resistance		I <sub>off</sub> (mA)	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W(g)	Input hole mm
						Ω <sub>min</sub>	Ω <sub>max</sub>							
HCJ-5/2KB	5/10/25/50/100	±1.2xI <sub>N</sub>	200	0.2%	80...4:2000	0	5	±0.3	±24	90+IM	6	0~+50	7000	P1...S1~5
<b>multirange</b>	<b>200/400</b>	<b>±3000</b>	<b>200</b>	<b>0.2%</b>	<b>2/1:2000</b>	<b>0</b>	<b>5</b>	<b>±0.3</b>	<b>±24</b>	<b>90+IM</b>	<b>6</b>	<b>0~+50</b>	<b>7000</b>	<b>φ102</b>
	1000	±3000	500	0.2%	1:2000	0	5	±0.3	±24	90+IM	6	0~+50	7000	φ102
	2000	±3000	1000	0.2%	1:2000	0	5	±0.3	±24	90+IM	6	0~+50	7000	φ102

Output parameter of HCJ Series hall effect current sensor

Rated current I <sub>N</sub> (A)	measuring range I <sub>P</sub> (A)	Output current I <sub>M</sub> (mA)	Turns ratio K <sub>N</sub>	Input hole
5	±6	200	80:2000	P1...S1
10	±12	200	40:2000	P1...S2
25	±30	200	16:2000	P1...S3
100	±120	200	4:2000	P1...S4
200	±1500	200	2:2000	Φ102、2Ts
400	±3000	200	1:2000	Φ102、1Ts
1000	±3000	500	1:2000	Φ102、1Ts
2000	±3000	1000	1:2000	Φ102、1Ts

I <sub>N</sub>	Nominal current	V <sub>off</sub>	Offset voltage
V <sub>N</sub>	Nominal voltage	T <sub>d</sub>	Temperature drift
I <sub>p</sub>	Measuring range	L	Linearity
R <sub>M</sub>	Measuring resistance	T <sub>r</sub>	Response time
I <sub>M</sub>	Output current	f	Frequency bandwidth
V <sub>M</sub>	Output voltage	T <sub>a</sub>	Operating temperature
K <sub>N</sub>	Turns ratio	T <sub>s</sub>	Storage temperature
X	Accuracy	I <sub>c</sub>	Current consumption
V <sub>c</sub>	Supply voltage	R <sub>s</sub>	Secondary resistance
V <sub>i</sub>	Isolation voltage	R <sub>N</sub>	Primary resistance
I <sub>off</sub>	Offset current	W	Weight



## Current/Voltage transducer(Cassette type)

### HCS-C 1A~300A, HCS-VC 5V~ 800 V

It is used to measure DC or AC current(voltage) and output DC standard signal. The measured current on the primary side is electrically isolated from the output signal on the secondary side.

#### Feature:

Test frequency:DC,50Hz(400Hz)

Response time: less than 350mS

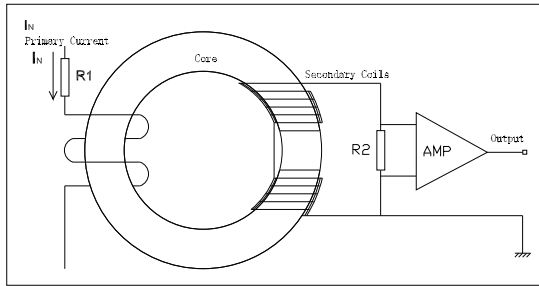
Linearity: 0.5%

No insertion loss measured

It is used to measure DC or AC current(voltage) and output DC standard signal

The primary current(voltage) is highly isolated from the secondary output signal

Low power consumption, single power supply, wide range of power supply



#### Working principle:

When the measured current flows through the conductor, a magnetic field in direct proportion to the current is generated around the conductor. The magnetic field is measured by the secondary coil, and its output voltage is proportional to the measured current. It is amplified and filtered by the electronic circuit and calibrated to the required standard signal, which accurately reflects the effective value of the primary current.

### HCS-C Series current transducer

Part No	Rated input current I <sub>N</sub> (A)	f(HZ)	I <sub>F</sub> (A)	V <sub>M</sub> (V)or I <sub>M</sub> (mA)	T <sub>a</sub> =25°C	Supply <sup>(1)</sup> V <sub>C</sub> (V)	I <sub>C</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W(g)	Input hole mm	Fig No.
HCS-C*/#	1/2/3/4/5	AC	I <sub>N</sub> x120%	#	0.5%	24	60+I <sub>M</sub>	2.5	-25~+85	85	terminal	A
HCS-C*S*/#	1/5/10/20/50/100/200/300	AC	I <sub>N</sub> x120%	#	0.5%	24	60+I <sub>M</sub>	2.5	-25~+85	85	φ 20	B
HCS-C*D*/#	1/2/5/10	DC	I <sub>N</sub> x120%	#	0.5%	24	60+I <sub>M</sub>	2.5	-25~+85	85	terminal	A

### HCS-VC Series voltage transducer

Part No	Rated input voltage V <sub>N</sub> (V)	f(HZ)	V <sub>F</sub> (V)	V <sub>M</sub> (V)or I <sub>M</sub> (mA)	T <sub>a</sub> =25°C	Supply <sup>(1)</sup> V <sub>C</sub> (V)	I <sub>C</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W(g)	Input hole mm	Fig No.
HCS-VC-*/#	5/10/50/100/300/500/800	AC	V <sub>N</sub> x120%	#	0.5%	24	60+I <sub>M</sub>	2.5	-25~+85	85	terminal	A
HCS-VC-*D/#	50/100/200/300/400/500	DC	V <sub>N</sub> x120%	#	0.5%	24	60+I <sub>M</sub>	2.5	-25~+85	85	terminal	A

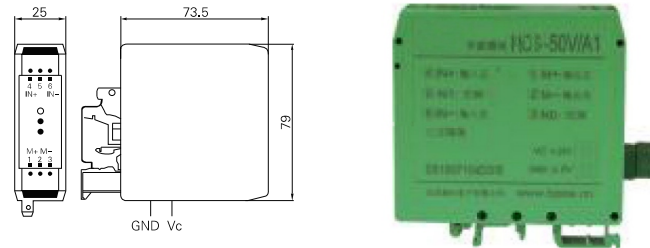
\* : Rated input current or voltage # : Rated output current or voltage

(1) Alternative power supply: V<sub>C</sub>=±5V,±12V,±15V,AC220V/50Hz

#	A0	A1	A2	V0	V1	V2
Output	0~20mA	4~20mA	0~10mA	0~5V	1~5V	0~10V

I <sub>N</sub>	Nominal current	V <sub>off</sub>	Offset voltage
V <sub>N</sub>	Nominal voltage	T <sub>d</sub>	Temperature drift
I <sub>p</sub>	Measuring range	L	Linearity
R <sub>M</sub>	Measuring resistance	T <sub>r</sub>	Response time
I <sub>M</sub>	Output current	f	Frequency bandwidth
V <sub>M</sub>	Output voltage	T <sub>a</sub>	Operating temperature
K <sub>N</sub>	Turns ratio	T <sub>s</sub>	Storage temperature
X	Accuracy	I <sub>C</sub>	Current consumption
V <sub>C</sub>	Supply voltage	R <sub>S</sub>	Secondary resistance
V <sub>i</sub>	Isolation voltage	R <sub>N</sub>	Primary resistance
I <sub>off</sub>	Offset current	W	Weight

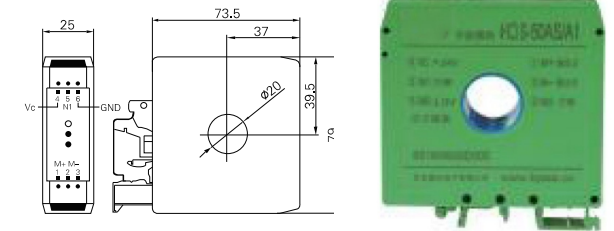
Fig A



#### Terminal

1--M+ output +	4--IN+ input +	VC-- supply +
2--M- output -	5--N1 NO	
3--N0	6--IN- input -	GND-- grounded

Fig B



#### Terminal

1--M+ output +	4--VC supply +
2--M- output -	5--N1 NO
3--N0	6--GND grounded

## Signal transducer(Cassette type)

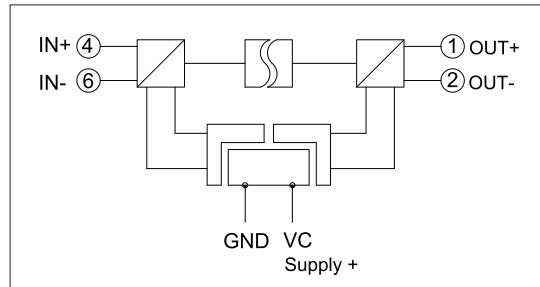
Used for standard signal conversion, output DC standard signal, the measured signal on the primary side and the output signal on the secondary side are electrically isolated

Feature:  
 Measurement frequency: DC  
 Accuracy: 0.2%-0.5%  
 Linearity :0.1%

Input impedance :  $\geq 100K\Omega$  voltage input  
 $\leq 50\Omega$  current input

Output load impedance :  $\geq 10K\Omega$  voltage output  
 $\leq 250\Omega$  current output

Output DC standard signal  
 The input signal on the primary side is highly isolated from the output signal on the secondary side  
 Single power supply, wide range of power supply



Working principle:  
 The three-terminal isolation technology is adopted, that is, the input end, output end and power supply end of the transmitter are isolated from each other. Multiple signals can be isolated from each other to avoid mutual influence between multiple sensor circuits. Therefore, the transmitter can be applied to the signal conversion and transmission between the sensor and the controller in the field, and can also be applied to the drive of high load in the long-distance transmission loop.



### HCT-C series standard signal isolation and conditioning module parameters

Part No	Rated input signal $I_N(mA) / V_N(V)$	f (HZ)	$I_F / V_F$	Output $V_M(V)$ or $I_M(mA)$	Accuracy $T_a=25^\circ C$	Supply <sup>(1)</sup> $V_C(V)$	$I_C(mA)$	$V_i(KV)$	$T_a(^{\circ}C)$	W(g)	Input hole mm
HCT-C-A0/#	0~20mA	DC	$I_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal
HCT-C-A1/#	4~20mA	DC	$I_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal
HCT-C-A2/#	0~10mA	DC	$I_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal
HCT-C-V0/#	0~5V	DC	$V_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal
HCT-C-V1/#	1~5V	DC	$V_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal
HCT-C-V2/#	0~10V	DC	$V_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal

### HCT-VC series voltage signal isolation and conditioning module parameters

Part No	Rated input voltage $V_N(V)$	f (HZ)	$V_F(V)$	$V_M(V)$ or $I_M(mA)$	Accuracy $T_a=25^\circ C$	Supply $V_C(V)$	$I_C(mA)$	$V_i(KV)$	$T_a(^{\circ}C)$	W(g)	Input hole mm
HCT-VC-*M/#	50/75/100/200/300/500/800mV	DC	$I_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal
HCT-VC-*#	1/10/50/100/250/500/1000	DC	$I_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal

### HCT-AC series current signal isolation and conditioning module parameters

Part No	Rated input current $I_N(A)$	f (HZ)	$I_F(A)$	$V_M(V)$ or $I_M(mA)$	Accuracy $T_a=25^\circ C$	Supply $V_C(V)$	$I_C(mA)$	$V_i(KV)$	$T_a(^{\circ}C)$	W(g)	Input hole mm
HCT-AC-*M/#	20/50/100/200/300/500mA	DC	$I_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal
HCT-AC-*#	1/2/5/10	DC	$I_N \times 120\%$	#	0.5%	24	60+ $I_M$	2	-25~+70	85	Terminal

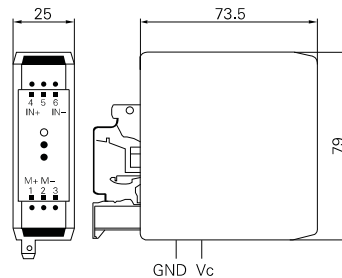
\* : Rated input current or voltage # : Rated output current or voltage

(1) Alternative power supply:  $V_C = \pm 5V, \pm 12V, \pm 15V, AC220V/50Hz$

This series of signal transmitters is manufactured with three-terminal isolation technology, that is, the input signal, the output signal and the power supply are electrically isolated

#	A0	A1	A2	V0	V1	V2
Output	0~20mA	4~20mA	0~10mA	0~5V	1~5V	0~10V

$I_N$	Nominal current	$V_{off}$	Offset voltage
$V_N$	Nominal voltage	$T_d$	Temperature drift
$I_F$	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



#### Terminal

- 1--M+ output +      4--IN+ input +      VC-- supply +
- 2--M- output -      5--N1 NO
- 3--NO                      6--IN- input -      GND-- grounded

## TRMS transducer(Cassette type)

### CHW-C 50mA~10A CHW-VC 1V~100V(AC+DC)

It is used to measure AC+DC current or voltage and output DC standard signal. The measured current or voltage on the primary side is electrically isolated from the output signal on the secondary side

Feature:

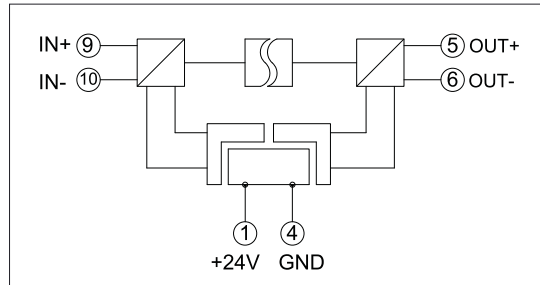
Test frequency: AC+DC  
Response time: less than 0.35s  
Linearity: 0.2%

No insertion loss measured

It is used to measure AC+DC current or voltage and output DC standard signal

The primary current(voltage) is highly isolated from the secondary output signal

Low power consumption, single power supply, wide range of power supply



Working principle:

The three-terminal isolation technology is adopted, that is, the input end, output end and power supply end of the transmitter are isolated from each other. Multiple signals can be isolated from each other to avoid mutual influence between multiple sensor circuits. Therefore, the transmitter can be applied to the signal conversion and transmission between the sensor and the controller in the field, and can also be applied to the drive of high load in the long-distance transmission loop.

### HCW-C series TRMS current transducer parameters

Part No	Rated input current I <sub>N</sub> (A)	f (HZ)	I <sub>P</sub> (A)	Output V <sub>M</sub> (V)orI <sub>M</sub> (mA)	Accuracy T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	Supply V <sub>C</sub> (V)	I <sub>C</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm
HCW-C-*A/#	1/2/5/10	AC+DC	I <sub>N</sub> x120%	#	1.0%	±50mV	24	120	2.5	-25~+70	100	Terminal
HCW-C-*MA/#	50/100/150/200/400/500mA	AC+DC	I <sub>N</sub> x120%	#	1.0%	±50mV	24	120	2.5	-25~+70	100	Terminal

### HCW-VC series TRMS voltage transducer parameters

Part No	Rated input voltage V <sub>N</sub> (V)	f (HZ)	V <sub>P</sub> (V)	Output V <sub>M</sub> (V)orI <sub>M</sub> (mA)	Accuracy T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	Supply V <sub>C</sub> (V)	I <sub>C</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Input hole mm
HCW-VC-*/#	1/10/50/100	AC+DC	V <sub>N</sub> x120%	#	1.0%	±50mV	24	120	2.5	-25~+70	100	Terminal

\* : Rated input current or voltage # : Rated output current or voltage

#	A0	A1	A2	V0	V1	V2
Output	0~20mA	4~20mA	0~10mA	0~5V	1~5V	0~10V

### HCW-C-MA series TRMS current transducer parameters (used in conjunction with sensors)

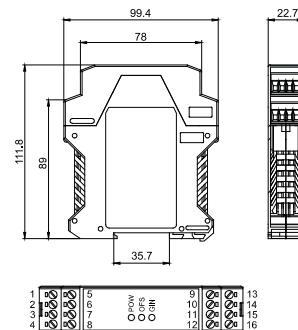
Part No	Rated input current I <sub>N</sub> (A)	f (HZ)	I <sub>P</sub> (A)	Output V <sub>M</sub> (V)orI <sub>M</sub> (mA)	Accuracy T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	Supply V <sub>C</sub> (V)	I <sub>C</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Auxiliary power supply V <sub>C</sub> (V)
HCW-C-*MA/SP11	50/100/150/200/400/500	AC+DC	I <sub>N</sub> x120%	0...20mA	1.0%	±0.3mA	24	120	2.5	-25~+70	100	±15
HCW-C-*MA/SP12	50/100/150/200/400/500	AC+DC	I <sub>N</sub> x120%	4...20mA	1.0%	±0.3mA	24	120	2.5	-25~+70	100	±15
HCW-C-*MA/SP13	50/100/150/200/400/500	AC+DC	I <sub>N</sub> x120%	0...5V	1.0%	±50mV	24	120	2.5	-25~+70	100	±15
HCW-C-*MA/SP14	50/100/150/200/400/500	AC+DC	I <sub>N</sub> x120%	1...5V	1.0%	±50mV	24	120	2.5	-25~+70	100	±15

### HCW-VC series TRMS voltage transducer parameters (used in conjunction with sensors)

Part No	Rated input current V <sub>N</sub> (V)	f (HZ)	V <sub>P</sub> (V)	Output V <sub>M</sub> (V)orI <sub>M</sub> (mA)	Accuracy T <sub>a</sub> =25°C	V <sub>off</sub> (mV)	Supply V <sub>C</sub> (V)	I <sub>C</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W (g)	Auxiliary power supply V <sub>C</sub> (V)
HCW-VC-*SP11	1/4/5/10	AC+DC	V <sub>N</sub> x120%	0...20mA	1.0%	±0.3mA	24	120	2.5	-25~+70	100	±15
HCW-VC-*SP12	1/4/5/10	AC+DC	V <sub>N</sub> x120%	4...20mA	1.0%	±0.3mA	24	120	2.5	-25~+70	100	±15
HCW-VC-*SP13	1/4/5/10	AC+DC	V <sub>N</sub> x120%	0...5V	1.0%	±50mV	24	120	2.5	-25~+70	100	±15
HCW-VC-*SP14	1/4/5/10	AC+DC	V <sub>N</sub> x120%	1...5V	1.0%	±50mV	24	120	2.5	-25~+70	100	±15

\* : Rated input current or voltage

Auxiliary power supply: ±15V/0.5A auxiliary power output, power supply for supporting sensors



I <sub>N</sub>	Nominal current	V <sub>off</sub>	Offset voltage
V <sub>N</sub>	Nominal voltage	T <sub>d</sub>	Temperature drift
I <sub>P</sub>	Measuring range	L	Linearity
R <sub>M</sub>	Measuring resistance	T <sub>r</sub>	Response time
I <sub>M</sub>	Output current	f	Frequency bandwidth
V <sub>M</sub>	Output voltage	T <sub>a</sub>	Operating temperature
K <sub>N</sub>	Turns ratio	T <sub>s</sub>	Storage temperature
X	Accuracy	I <sub>C</sub>	Current consumption
V <sub>C</sub>	Supply voltage	R <sub>S</sub>	Secondary resistance
V <sub>i</sub>	Isolation voltage	R <sub>N</sub>	Primary resistance
I <sub>off</sub>	Offset current	W	Weight



## Switching output transducer

### HCY/Z/S-0.5A~500A

### HCY/Z/S-V-50V~500V

Used to measure DC or AC current/voltage, output switching signal the measured current/voltage on the primary side and the output signal on the secondary side are electrically isolated.

Feature:

Test frequency:DC,50Hz(400Hz)

Response time: less than 350mS

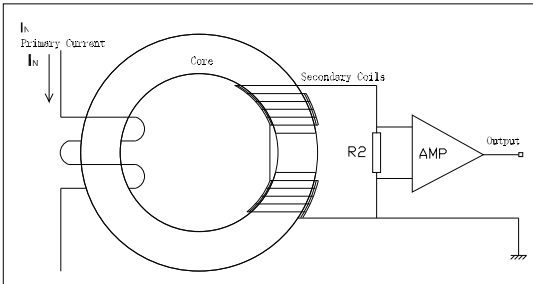
Linearity: 0.5%

No insertion loss measured

Used to measure DC or AC current/voltage, output switching signal

The primary current is highly isolated from the secondary output signal

Low power consumption, single power supply, wide range of power supply



Working principle:

When the measured current/voltage flows through the conductor, a magnetic field in direct proportion to the current is generated around the conductor. The magnetic field is measured by the secondary coil, and its output voltage is proportional to the measured current. The output voltage is amplified, filtered and calibrated to the required standard signal through the electronic circuit, and the output is turned into the switching signal by the relay

### HCY/Z/S/T Series current transducer (switching output)

Part No	Rated input current I <sub>N</sub> (A)	f(HZ)	I <sub>F</sub> (A)	Relay output (1) Input current < I <sub>N</sub>	T <sub>a</sub> =25°C	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W(g)	Input hole mm	Fig. No.
HCY-*AE/C	0.5/1/5/10	AC	50A	Triode conduction(low voltage)	±0.2A	24	30	2	-25~+85	50	φ12	9
HCY-*AF/K1	1/5/50/100/200/300	AC	I <sub>N</sub> ×200%	normal open	1.0%	24	30	3	-25~+85	105	φ20	1
HCY-*AG/K1	5/50/100/200/300/500	AC	I <sub>N</sub> ×200%	normal open	1.0%	24	30	6	-25~+85	360	φ35	2
HCZ-*S/K1	5/10/50/100/200/300	DC	I <sub>N</sub> ×200%	normal open	1.0%	24	30	6	-25~+85	240	φ20	3
HCZ-*G/K1	10/50/100/200/400/500	DC	I <sub>N</sub> ×200%	normal open	1.0%	24	30	6	-25~+85	360	φ35	2
HCS-*AS/K2	1/5/10/50/100/200/300	AC	I <sub>N</sub> ×200%	normal open+ normal close	1.0%	24	60+I <sub>M</sub>	2.5	-25~+85	85	φ20	7
HCT-*A/K2	1/2/5/10	DC	I <sub>N</sub> ×200%	normal open+ normal close	1.0%	24	60+I <sub>M</sub>	2.5	-25~+85	85	terminal	6

### HCY/Z/S/T-V Series voltage transducer (switching output)

Part No	Rated input voltage V <sub>N</sub> (V)	f(HZ)	V <sub>F</sub> (V)	Relay output (1) Input voltage < V <sub>N</sub>	T <sub>a</sub> =25°C	V <sub>c</sub> (V)	I <sub>c</sub> (mA)	V <sub>i</sub> (KV)	T <sub>a</sub> (°C)	W(g)	Input hole mm	Fig. No.
HCY-V-*VS/K1	100/200/300/400/500	AC	V <sub>N</sub> ×200%	normal open	1.0%	24	30	2.5	-25~+85	240	terminal	4
HCZ-V-*VS/K1	100/200/400/500	DC	V <sub>N</sub> ×200%	normal open	1.0%	24	90	2.5	-25~+85	240	terminal	4
HCZ-V-*VT/K1	500/1000/2000	DC	V <sub>N</sub> ×200%	normal open	1.0%	24	90	6	-25~+85	650	terminal	5
HCZ-V-*KV/K2	1/3/5KV	DC	V <sub>N</sub> ×200%	normal open+ normal close	1.0%	24	40	10	-25~+85	2500	terminal	8
HCS-V-*V/K2	100/200/300/400/500	AC	V <sub>N</sub> ×200%	normal open+ normal close	1.0%	24	60+I <sub>M</sub>	2.5	-25~+85	85	terminal	6
HCT-V-*V/K2	50/100/200/300/500	DC	V <sub>N</sub> ×200%	normal open+ normal close	1.0%	24	60+I <sub>M</sub>	2.5	-25~+85	85	terminal	6

\* : Rated input current or voltage # : Rated output current or voltage

(1) Relay output: When the Input current(voltage) < I<sub>N</sub>(V<sub>N</sub>), Use K1,K2,K3 to indicate the output relay status

Code	K1	K2	K3
Relay output state	normal open	normal open + normal close	normal close

I <sub>N</sub>	Nominal current	V <sub>off</sub>	Offset voltage
V <sub>N</sub>	Nominal voltage	T <sub>d</sub>	Temperature drift
I <sub>p</sub>	Measuring range	L	Linearity
R <sub>M</sub>	Measuring resistance	T <sub>r</sub>	Response time
I <sub>M</sub>	Output current	f	Frequency bandwidth
V <sub>M</sub>	Output voltage	T <sub>a</sub>	Operating temperature
K <sub>N</sub>	Turns ratio	T <sub>s</sub>	Storage temperature
X	Accuracy	I <sub>c</sub>	Current consumption
V <sub>c</sub>	Supply voltage	R <sub>s</sub>	Secondary resistance
V <sub>i</sub>	Isolation voltage	R <sub>N</sub>	Primary resistance
I <sub>off</sub>	Offset current	W	Weight



Fig. 1

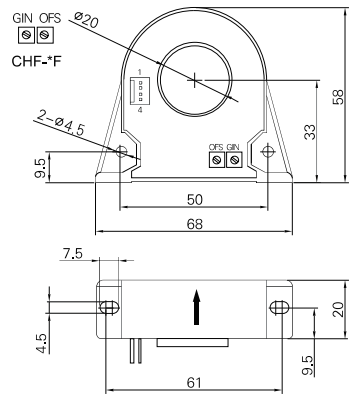


Fig. 2

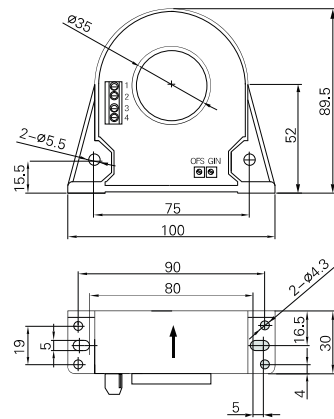


Fig. 3

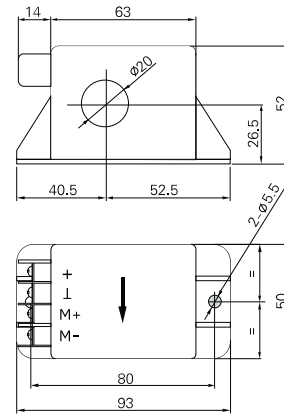


Fig. 4

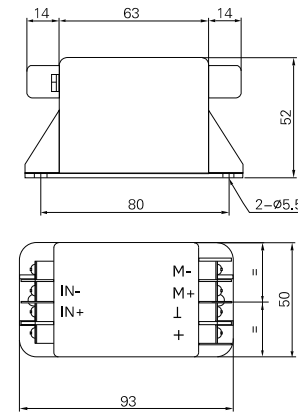


Fig. 5

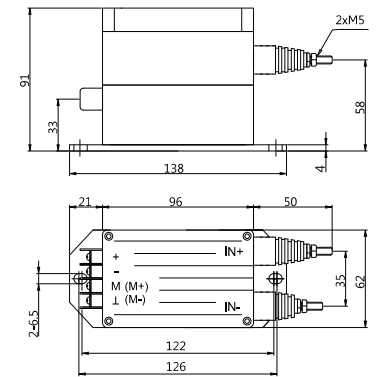
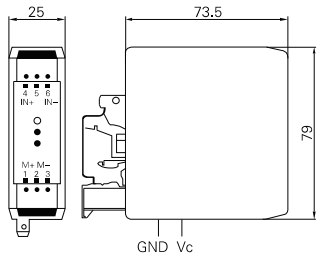
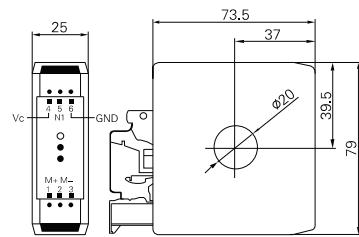


Fig. 6



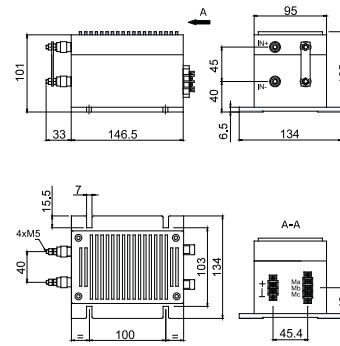
- 1--M+
- 2--M-
- 3--NC
- 4--IN+
- 5--NC
- 6--IN-
- VC--Power supply+
- GND

Fig. 7



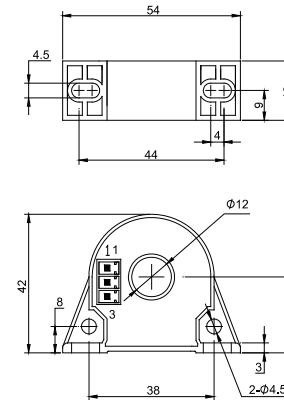
- 1--M+
- 2--M-
- 3--NC
- 4--VC Power supply+
- 5--NC
- 6--GND

Fig. 8



Recommended mounting size 100x120mm

Fig. 9



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