

HBV412U01

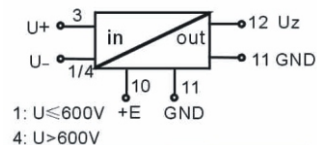


- AC voltage measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

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 0~10V...0~1000V
Output:	DC 0~5(10)V
Frequency:	25Hz~5kHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output input/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms



HBV414U01

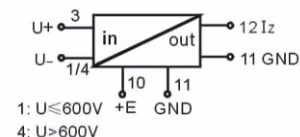


- AC voltage measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

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 0~10V...0~1000V
Output:	DC 0(4)~20mA
Frequency:	25Hz~5kHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.5%
Isolation:	input/output input/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms



HBV412U05



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

The product has certain advantages of total galvanic isolation between input/output/power supply, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

Technical indicators:

Input:	AC 0~10V...0~1000V
Output:	DC 0~5(10)V
Frequency:	25Hz~5kHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

HBV414U05



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

The product has certain advantages of total galvanic isolation between input/output/power supply, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

Technical indicators:

Input:	AC 0~10V...0~1000V
Output:	DC 0(4)~20mA
Frequency:	25Hz~5kHz
Power supply:	+12VDC/+24VDC
Accuracy:	0.5%
Isolation:	input/output/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

HBV415U01



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

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 0~10V...0~1000V
Output:	RMS 0~5V
Frequency:	50Hz 60Hz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output input/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

HBV417U01



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

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 0~10V...0~1000V
Output:	RMS 0(4)~20mA
Frequency:	50Hz 60Hz
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output input/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

HBV412U09



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

The product has certain advantages of total galvanic isolation between input/output/power supply, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

Technical indicators:

Input:	AC 0~10V...0~1000V
Output:	DC 0~5(10)V
Frequency:	50Hz 60Hz
Power supply:	AC 165~265V DC 230V~360V
Accuracy:	0.5%
Isolation:	input/output/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

HBV414U09



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

The product has certain advantages of total galvanic isolation between input/output/power supply, high accuracy, low drifting by temperature, and wide temperature bearable range, etc.

Technical indicators:

Input:	AC 0~10V...0~1000V
Output:	DC 0(4)~20mA
Frequency:	50Hz 60Hz
Power supply:	AC 165~265V DC 230V~360V
Accuracy:	0.5%
Isolation:	input/output/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

HB3V412U01



3-phase 4-wire AC voltage measurement

Technical indicators:

Input:	AC 0~10V...0~500V
Output:	DC 0~5V
Frequency:	50Hz 60Hz
Power supply:	+12VDC/+24VDC
Accuracy:	0.5%
Isolation:	input/output input/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

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

HB3V414U01



3-phase 4-wire AC voltage measurement

Technical indicators:

Input:	AC 0~10V...0~500V
Output:	DC 0(4)~20mA
Frequency:	50Hz 60Hz
Power supply:	+12VDC/+24VDC
Accuracy:	0.5%
Isolation:	input/output input/power supply
Insulation Voltage:	2500VDC, 1min
Response Time:	300ms

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

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

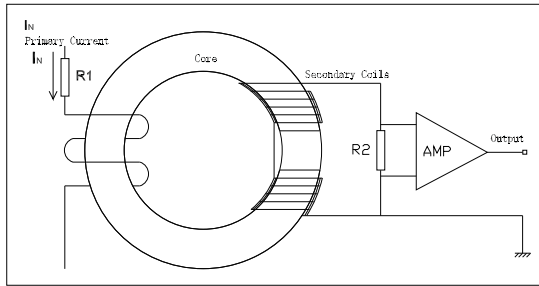
Linearity: 0.5%

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 _N (A)	f(HZ)	I _F (A)	V _M (V)or I _M (mA)	T _a =25°C	Supply ⁽¹⁾ V _C (V)	I _C (mA)	V _i (KV)	T _a (°C)	W(g)	Input hole mm	Fig No.
HCS-C*/#	1/2/3/4/5	AC	I _N x120%	#	0.5%	24	60+I _M	2.5	-25~+85	85	terminal	A
HCS-C*S*/#	1/5/10/20/50/100/200/300	AC	I _N x120%	#	0.5%	24	60+I _M	2.5	-25~+85	85	φ 20	B
HCS-C*D*/#	1/2/5/10	DC	I _N x120%	#	0.5%	24	60+I _M	2.5	-25~+85	85	terminal	A

HCS-VC Series voltage transducer

Part No	Rated input voltage V _N (V)	f(HZ)	V _F (V)	V _M (V)or I _M (mA)	T _a =25°C	Supply ⁽¹⁾ V _C (V)	I _C (mA)	V _i (KV)	T _a (°C)	W(g)	Input hole mm	Fig No.
HCS-VC-*/#	5/10/50/100/300/500/800	AC	V _N x120%	#	0.5%	24	60+I _M	2.5	-25~+85	85	terminal	A
HCS-VC-*D/#	50/100/200/300/400/500	DC	V _N x120%	#	0.5%	24	60+I _M	2.5	-25~+85	85	terminal	A

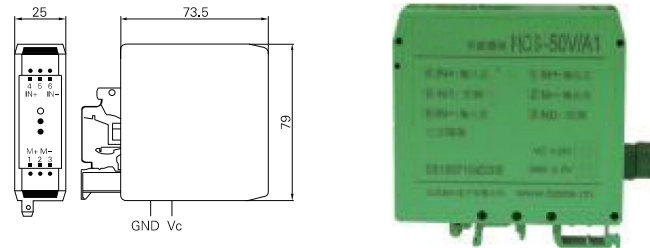
* : Rated input current or voltage # : Rated output current or voltage

(1) Alternative power supply: V_C=±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 _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

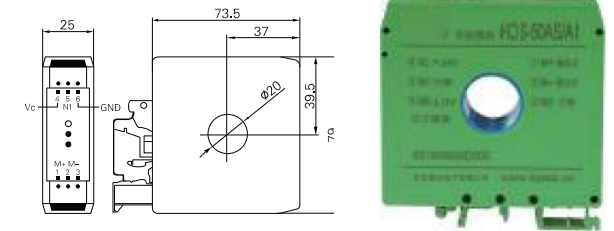
Fig A



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

HBV344U01

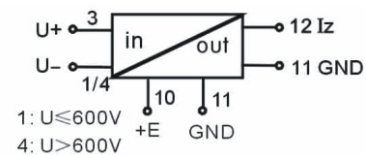


- DC voltage measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

HBV344U01 converts pure DC input voltage into a load independent output signal DC 0~20mA or 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 0~10mV...0~1000V
Output:	DC 0~20mA or 4~20mA
Power supply:	+12VDC/+24VDC
Accuracy:	DC 0~20mA 0.2% / DC 4~20mA 0.5%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	150ms
Mount:	35mm DIN rail mounting
	comercial/Industrial/military grade for choose



HBV342U01

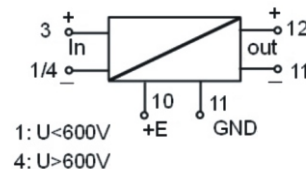


- DC voltage measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

HBV342U01 converts pure DC 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:	DC 0~10mV...0~1000V
Output:	DC 0~5V or 0~10V
Power supply:	+12VDC/+24VDC
Accuracy:	0.2%
Isolation:	input/output
Insulation Voltage:	2500VDC, 1 min
Response time:	150ms
Mount:	35mm DIN rail mounting
	comercial/Industrial/military grade for choose



HBV332U01

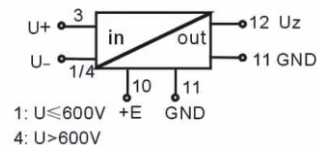


- DC voltage measurement
- Electromagnetic isolation principle
- High precision and high reliability
- Low drift, Micro power consumption
- Fast response
- Flame retardant shell
- 105mmX23mmX70.5mm

HBV332U01 converts DC input pulsating 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: DC 0~10mV...0~1000V
Output: DC 0~5V or 0~10V
Power supply: +12VDC/+24VDC
Accuracy: 0.2%
Isolation: input/output
Insulation Voltage: 2500VDC, 1 min
Response time: 150ms
Mount: 35mm DIN rail mounting
comercial/Industrial/military grade for choose



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%

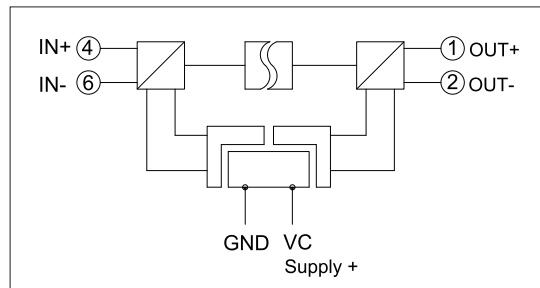
Input impedance : $\geq 100K\Omega$ voltage input
 $\leq 50\Omega$ current input

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 ⁽¹⁾ $V_C(V)$	$I_C(mA)$	$V_i(KV)$	$T_a(^{\circ}C)$	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

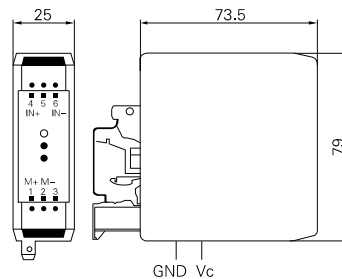
* : Rated input current or voltage # : Rated output current or voltage

(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

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)

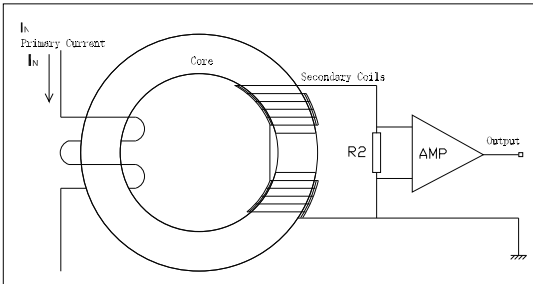
Response time: less than 350mS

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 _N (A)	f(HZ)	I _F (A)	Relay output (1) Input current < I _N	T _a =25°C	V _c (V)	I _c (mA)	V _i (KV)	T _a (°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 _N ×200%	normal open	1.0%	24	30	3	-25~+85	105	φ20	1
HCY-*AG/K1	5/50/100/200/300/500	AC	I _N ×200%	normal open	1.0%	24	30	6	-25~+85	360	φ35	2
HCZ-*S/K1	5/10/50/100/200/300	DC	I _N ×200%	normal open	1.0%	24	30	6	-25~+85	240	φ20	3
HCZ-*G/K1	10/50/100/200/400/500	DC	I _N ×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 _N ×200%	normal open+ normal close	1.0%	24	60+I _M	2.5	-25~+85	85	φ20	7
HCT-*A/K2	1/2/5/10	DC	I _N ×200%	normal open+ normal close	1.0%	24	60+I _M	2.5	-25~+85	85	terminal	6

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

Part No	Rated input voltage V _N (V)	f(HZ)	V _F (V)	Relay output (1) Input voltage < V _N	T _a =25°C	V _c (V)	I _c (mA)	V _i (KV)	T _a (°C)	W(g)	Input hole mm	Fig. No.
HCY-V-*VS/K1	100/200/300/400/500	AC	V _N ×200%	normal open	1.0%	24	30	2.5	-25~+85	240	terminal	4
HCZ-V-*VS/K1	100/200/400/500	DC	V _N ×200%	normal open	1.0%	24	90	2.5	-25~+85	240	terminal	4
HCZ-V-*VT/K1	500/1000/2000	DC	V _N ×200%	normal open	1.0%	24	90	6	-25~+85	650	terminal	5
HCZ-V-*KV/K2	1/3/5KV	DC	V _N ×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 _N ×200%	normal open+ normal close	1.0%	24	60+I _M	2.5	-25~+85	85	terminal	6
HCT-V-*V/K2	50/100/200/300/500	DC	V _N ×200%	normal open+ normal close	1.0%	24	60+I _M	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_N(V_N), 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 _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



Fig. 1

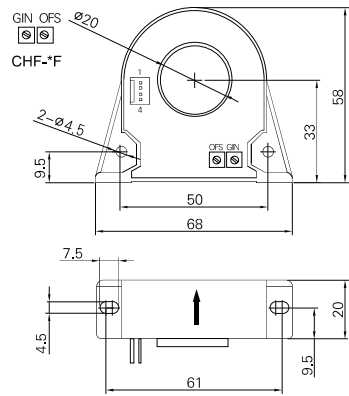


Fig. 2

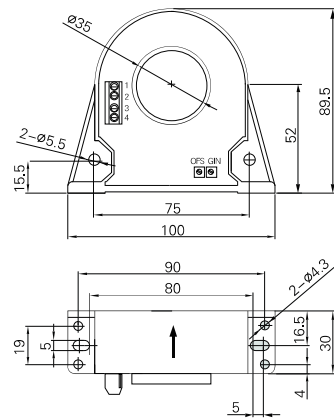


Fig. 3

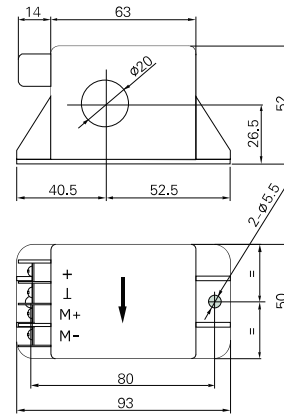


Fig. 4

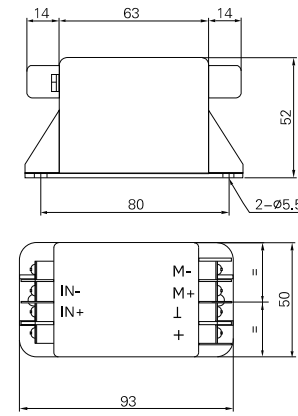


Fig. 5

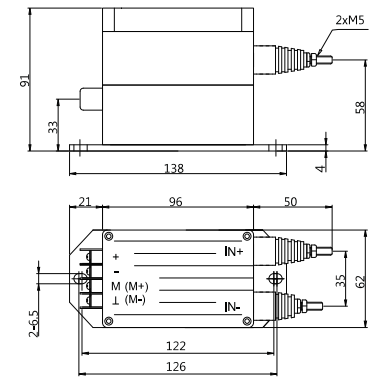
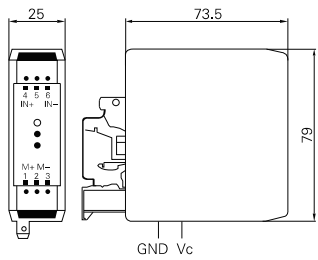
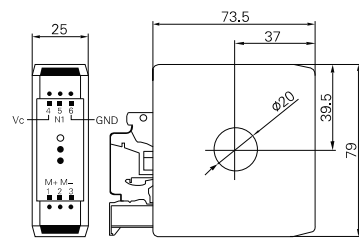


Fig. 6



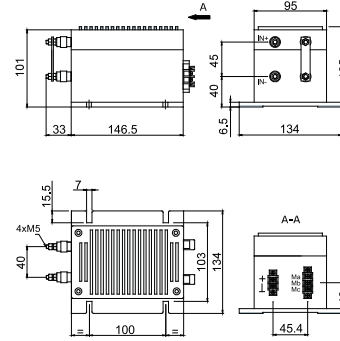
- 1--M+
- 2--M-
- 3--NC
- 4--IN+
- 5--NC
- 6--IN-
- VC--Power supply+
- GND

Fig. 7



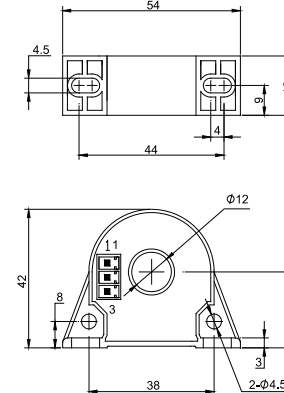
- 1--M+
- 2--M-
- 3--NC
- 4--VC Power supply+
- 5--NC
- 6--GND

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-

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

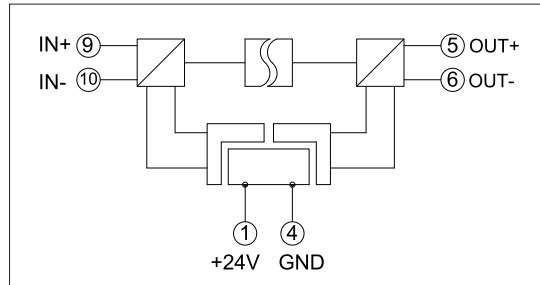
Feature:

- 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 _N (A)	f (HZ)	I _P (A)	Output V _M (V)orI _M (mA)	Accuracy T _a =25°C	V _{off} (mV)	Supply V _C (V)	I _C (mA)	V _i (KV)	T _a (°C)	W (g)	Input hole mm
HCW-C-*A/#	1/2/5/10	AC+DC	I _N x120%	#	1.0%	±50mV	24	120	2.5	-25~+70	100	Terminal
HCW-C-*MA/#	50/100/150/200/400/500mA	AC+DC	I _N 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 _N (V)	f (HZ)	V _P (V)	Output V _M (V)orI _M (mA)	Accuracy T _a =25°C	V _{off} (mV)	Supply V _C (V)	I _C (mA)	V _i (KV)	T _a (°C)	W (g)	Input hole mm
HCW-VC-*/#	1/10/50/100	AC+DC	V _N 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)

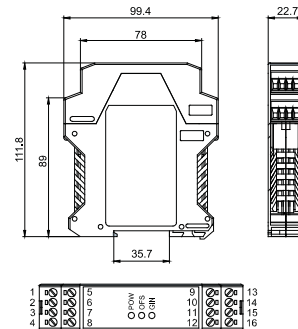
Part No	Rated input current I _N (A)	f (HZ)	I _P (A)	Output V _M (V)orI _M (mA)	Accuracy T _a =25°C	V _{off} (mV)	Supply V _C (V)	I _C (mA)	V _i (KV)	T _a (°C)	W (g)	Auxiliary power supply V _C (V)
HCW-C-*MA/SP11	50/100/150/200/400/500	AC+DC	I _N x120%	0...20mA	1.0%	±0.3mA	24	120	2.5	-25~+70	100	±15
HCW-C-*MA/SP12	50/100/150/200/400/500	AC+DC	I _N 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 _N 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 _N 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 _N (V)	f (HZ)	V _P (V)	Output V _M (V)orI _M (mA)	Accuracy T _a =25°C	V _{off} (mV)	Supply V _C (V)	I _C (mA)	V _i (KV)	T _a (°C)	W (g)	Auxiliary power supply V _C (V)
HCW-VC-*SP11	1/4/5/10	AC+DC	V _N 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 _N 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 _N x120%	0...5V	1.0%	±50mV	24	120	2.5	-25~+70	100	±15
HCW-VC-*SP14	1/4/5/10	AC+DC	V _N 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 _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

Voltage transducer

HCY-V-10V~15KV(AC)

HCZ-V-0.05V~15KV(DC)

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

The primary voltage is highly isolated from the secondary output signal

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

HCY-V Series AC voltage transducer

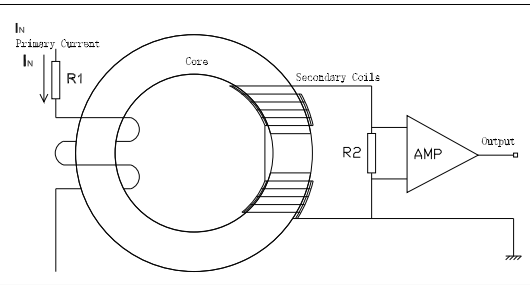
Part No	Rated input voltage V _N (V)	f(HZ)	V _r (V)	V _N (V)or I _N (mA)	T _a =25°C	V _{off} (mV)	V _c (V)	I _c (mA)	V _i (KV)	T _a (°C)	W(g)	Input hole mm	Fig. No.
HCY-V-*VP/#	10/50/100/200/300/600	AC	V _N x120%	#	0.5%	±30	24	30	2.5	-25~+85	240	PCB	9
HCY-V-*VS/#	10/50/100/200/300/400/500	AC	V _N x120%	#	0.5%	±30	24	30	2.5	-25~+85	240	terminal	4
HCY-V-*V/#	50/100/200/300/400/500	AC	V _N x120%	#	0.5%	±30	24	30	6	-25~+85	360	terminal	3
HCY-V-*VT/#	500/1000/2000/3000/4000	AC	V _N x120%	#	0.5%	±30	24	30	6	-25~+85	650	terminal	2
HCY-V-*KV/#	1/3/5KV	AC	V _N x120%	#	0.5%	±30	24	30	10	-25~+85	2000	terminal	8
HCY-V-*KV/#	6/9KV	AC	V _N x120%	#	0.5%	±30	24	30	15	-25~+85	2500	terminal	5
HCY-V-*KV1/#	10/15KV	AC	V _N x120%	#	0.5%	±30	24	80	35	-25~+70	17500	terminal	10

HCY-V Series AC voltage transducer(two-wire system 4~20mA output)

Part No	Rated input voltage V _N (V)	f(HZ)	V _r (V)	V _N (V)or I _N (mA)	T _a =25°C	V _{off} (mV)	V _c (V)	I _c (mA)	V _i (KV)	T _a (°C)	W(g)	Input hole mm	Fig. No.
CHY-V-*VS/A4	50/100/200/300/400/500	AC	V _N x120%	4~20mA	0.5%	±0.2	24	30	2.5	-25~+85	240	terminal	4
CHY-V-*V/A4	50/100/200/300/400/500	AC	V _N x120%	4~20mA	0.5%	±0.2	24	30	6	-25~+85	360	terminal	3

HCZ-V Series DC voltage transducer

Part No	Rated input voltage V _N (V)	f(HZ)	V _r (V)	V _N (V)or I _N (mA)	T _a =25°C	V _{off} (mV)	V _c (V)	I _c (mA)	V _i (KV)	T _a (°C)	W(g)	Input hole mm	Fig. No.
HCZ-V -*VP/#	0.05/0.1/1/10/50/100/300/500/800	DC	V _N x120%	#(2)	0.5%	±30	24	30	2.5	-25~+85	240	PCB	9
HCZ-V -*VD/#	5/10/50/100/200/300/500/800	DC	V _N x120%	#	0.5%	±30	24	90	2.5	-25~+85	240	terminal	1
HCZ-V -*V/#	50/100/500	DC	V _N x120%	#	0.5%	±30	24	90	6	-25~+85	360	terminal	6
HCZ-V -*VT/#	500/1000/2000/3000/4000	DC	V _N x120%	#	0.5%	±30	24	90	6	-25~+85	650	terminal	7
HCZ-V -*KV/#	1/3/5KV	DC	V _N x120%	#	0.5%	±30	24	30	10	-25~+85	2000	terminal	8
HCZ-V -*KV/#	6/9KV	DC	V _N x120%	#	0.5%	±30	24	30	15	-25~+85	2500	terminal	5
HCZ-V -*KV/#	10KV	DC	V _N x120%	#	0.5%	±30	24	30	20	-25~+85	2500	terminal	5
HCZ-V -*KV1/#	10/15KV	DC	V _N x120%	#	0.5%	±30	24	80	35	-25~+85	17500	terminal	10



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.

* : Rated input voltage # : 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

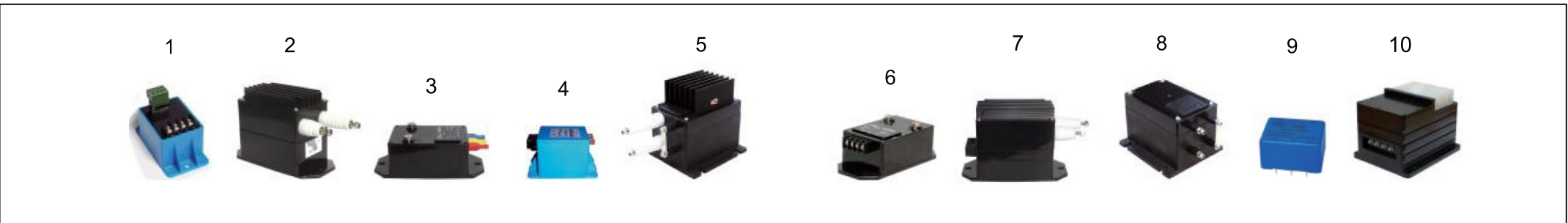


Fig. 1

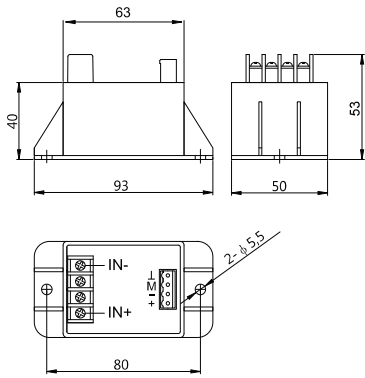


Fig. 2

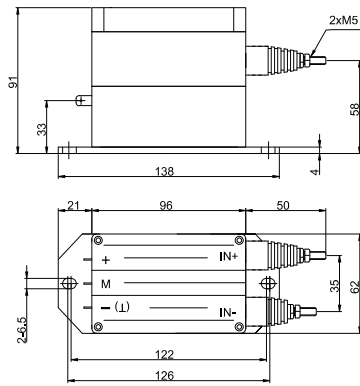


Fig. 3

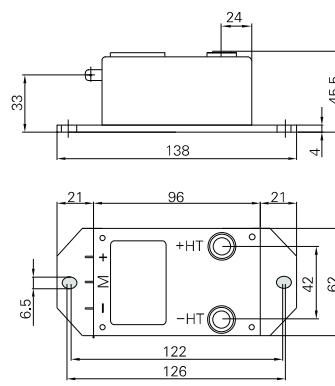


Fig. 4

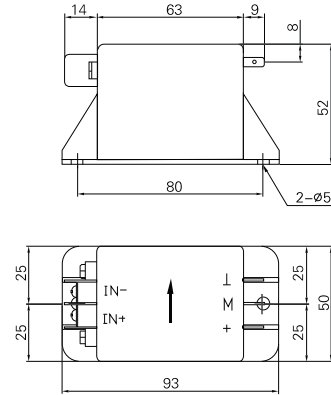


Fig. 5

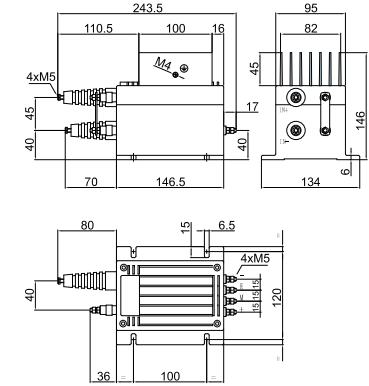


Fig. 6

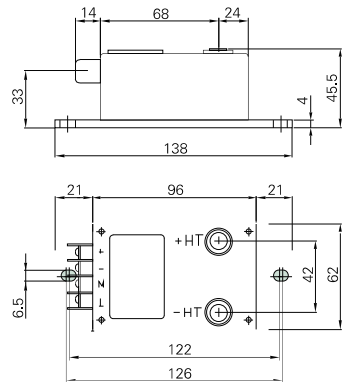


Fig. 7

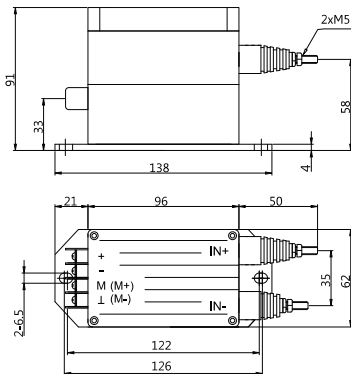


Fig. 8

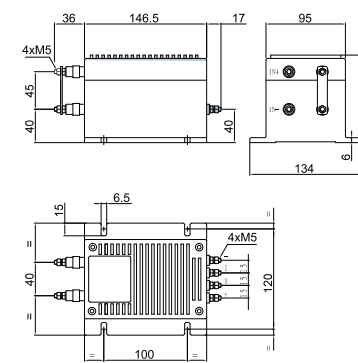


Fig. 9

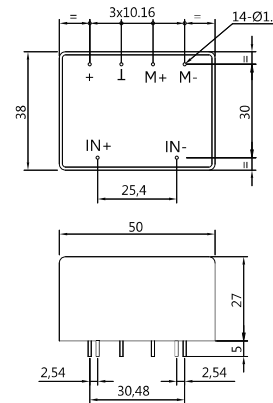
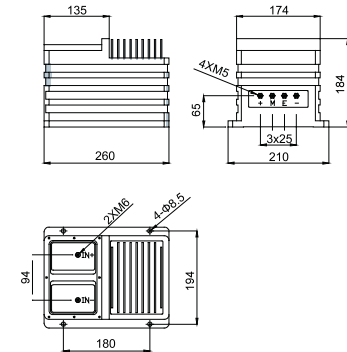


Fig. 10

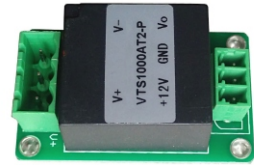


IN	Nominal current	Voff	Offset voltage
VN	Nominal voltage	Td	Temperature drift
Ip	Measuring range	L	Linearity
RM	Measuring resistance	Tr	Response time
IM	Output current	f	Frequency bandwidth
VM	Output voltage	Ta	Operating temperature
KN	Turns ratio	Ts	Storage temperature
X	Accuracy	Ic	Current consumption
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-

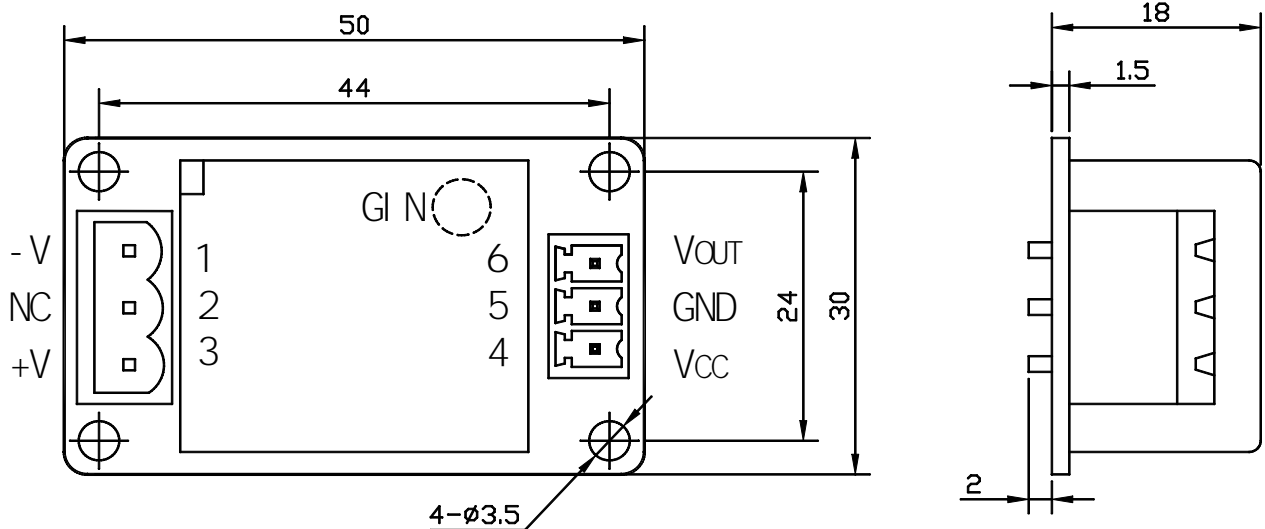
VTS1000AT2-P Voltage Transducer Series

The voltage transducer which apply of the principle of optoelectronic isolator , can measure dc voltage and pulse dc signal under the condition of electrical isolation



Electrical characteristics								
	Type	VTS0.1AT2-P	VTS001AT2-P	VTS010AT2-P	VTS100AT2-P	VTS500AT2-P	VTS1000AT2-P	
V_{PN}	Primary nominal input voltage	0.1	1	10	100	500	1000	V
V_P	Measuring range of primary voltage	0 0.2	0 2	0 20	0 200	0 1000	0 1200	V
V_{OUT}	Nominal output voltage	5±0.5%						V
V_C	Supply voltage	+12(±5%)						V
I_C	Current consumption	<15						mA
V_D	Insulation voltage	AC/50Hz/1min			2.5		kV	
L	Linearity	<0.5						%FS
V_0	Offset voltage	$T_A=25$			<20		mV	
V_{OT}	Thermal drift of V_0	$V_P=0 T_A= -25\sim+85$			<±0.5		mV/	
T_R	Response time	90% of V_{PN}			<60		ms	
T_A	Ambient operating temperature	-25~+85						
T_S	Ambient storage temperature	-40~+100						
R_L	Load resistance	10						K
m	Mass	23						g
	Standard	Q/320115QHKJ01-2013						

Dimensions of drawing (mm)



Elucidation: 1:V_{IN} 2:NC 3:V_{IN} 4:+12V 5:0V(GND) 3:V_{OUT} GIN:Gain adjustment

Remarks

- Incorrect connection may lead to the damage of the transducer.
- V_{OUT} is positive when the connection of V_P according to the top diagram.
- Pulsating dc voltage is input voltage after rectifying not filter or the ripple content > 10% of the voltage signal

DC signal isolator/ transmitter

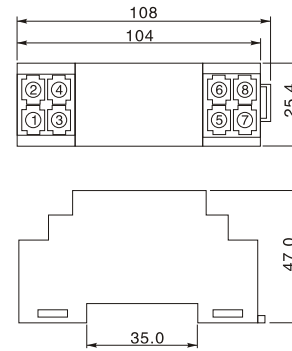
Multi-function transmitter, the input voltage range is -2000V~2000V, the input current range is -10A~10A, can be used for standard signals such as 4-20mA, 0-10V, 0-5V, 0-75mV can also be used for non-standard signals such as 20-4mA, 10-0V, -10V~10V and so on. 24V power supply, input, output, power supply, three ports are fully isolated, the industrial site DC voltage signal isolation, into standard current, voltage signals. DIN rail independent mounting.

Feature:

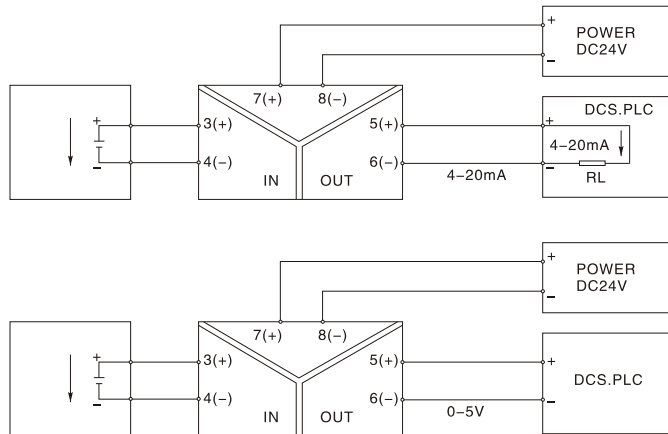
- Accuracy up to 0.1%
- Response speed 10MS
- Stable performance, low temperature drift
- High integration
- Three-end anti-interference, strong reliability
- Complete channels and customizable parameters
- Support high current, high voltage
- 35mm DIN rail mounting

Product performance:

- Input signal :0-75mV, 0-5V, 0-10V
- Input impedance: Input voltage :≥300KΩ; Input current ≤75Ω
- Output signal: 4-20mA, 0-20mA, 0-5V, 0-10V
- Output load resistance: RL≤650Ω (when output is current signal)
- Power supply: DC12-32V
- Consumption current :≤30mA (24V power supply, 20mA output)
- Basic accuracy: 0.1%F.S
- Temperature drift: 0.005%F.S/°C (-20°C~+55°C)
- Response time :≤10mS (0-90%) (TYP can be customized)
- Insulation resistance :≥100mΩ (between input, output and power supply)
- Operating temperature range: -20°C~+55°C
- Electromagnetic compatibility: according to GB/T18268.1 (IEC61326-1)



Terminal	Terminal definition		
	8	Power	Power -
7	Power +		
6	Output -	Output -	
5	Output +	Output +	
4	Input -	Input -	
3	Input +	Input +	
2		/	
1		/	



Note: When the reverse signal is input 4 (+), 3 (-)
 Only the current output has reverse protection (no damage but not done), current and voltage limiting protection.
 Other output signals are reversed resulting in transmitter damage

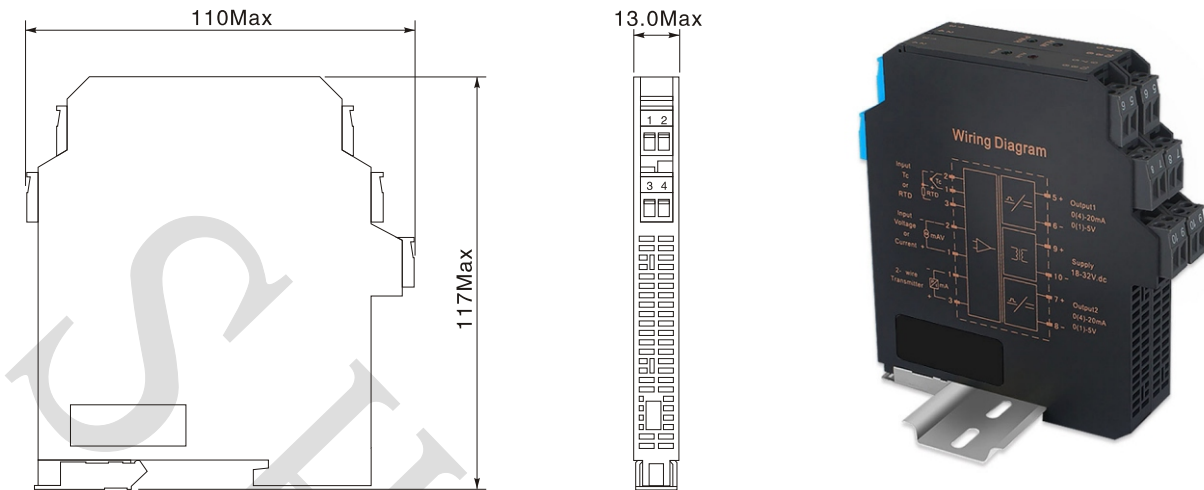
Working principle

DC24V or AC24V supply. The input end uses high-precision resistance for signal sampling, and passes through high-frequency transformer for electromagnetic isolation. The isolation between input, output and power supply has the characteristics of high precision, high linearity and low temperature bleaching.

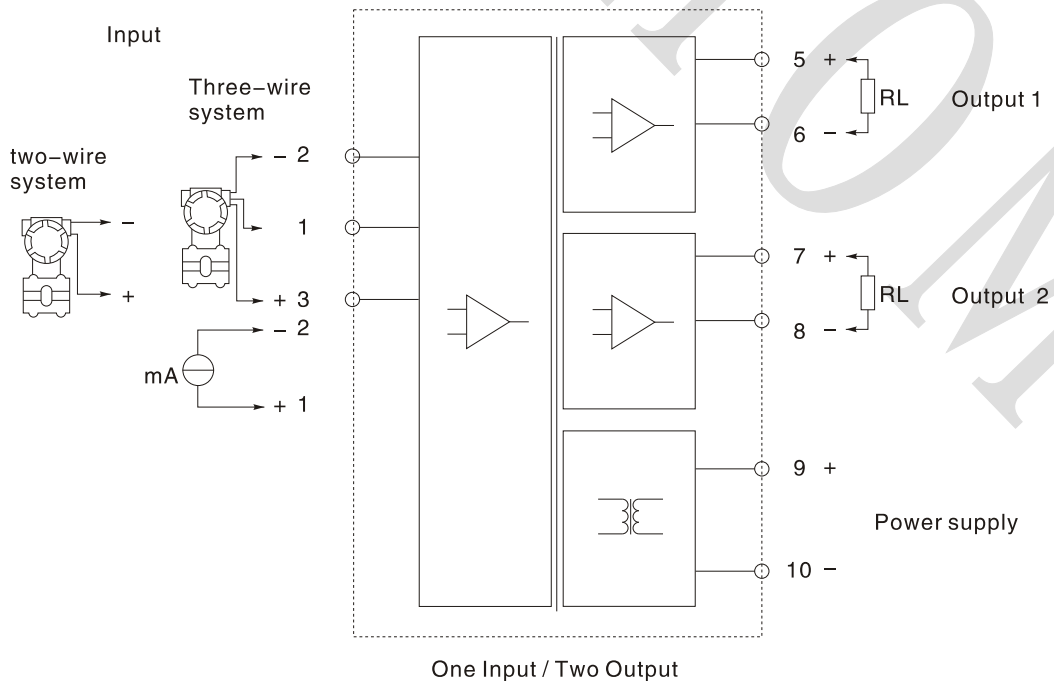
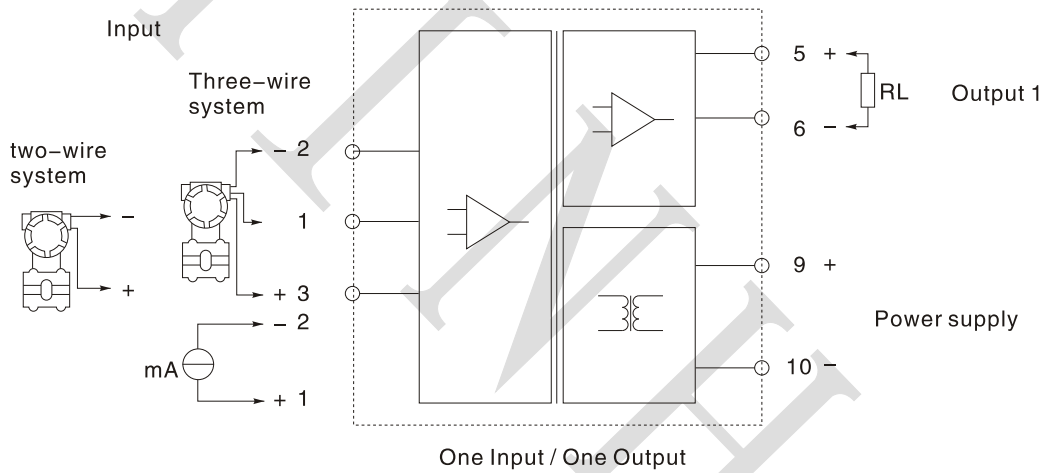
Part No.		Note	
HBV	A	O	Single input single output
	A1		0-10mA
	A2		0-20mA
	A3		4-20mA
	A4		0-5V
	A5		0-10V
	A6		± 10mA
	A7		± 5V
	A8		± 10V
	A9		0-24V
	A10		0-48V
	A11		0-100V
	A12		0-1000 V
	A13		0-2000V
A14		custom	
Input signal		O1	4-20mA
		O2	0-20mA
		O3	0-10mA
		O4	0-5V
		O5	0-10V
		O6	1-5V
		O7	± 5V
		O8	± 10V
		O9	custom
Output signal	Power supply		DC12V
	Power supply		DC24V

Selection example: 0-10mA input, 4-20mA output, Power supply DC12V
 Part No. :HBV-A1-O1-DC12V

Size: 110x117x13mm



Wiring diagram



Model Selection Table

Part No.		HBV11T2020DC24		
Channel	11			One input / One output
	21			One input / two output
Input	A			4-20mA
	B			0-20mA
	C			0-10mA
	D			0-5V
	E			0-10V
	F			1-5V
	G			Customized
Output	1			4-20mA
	2			0-20mA
	3			0-10mA
	4			0-5V
	5			0-10V
	6			1-5V
	7			Customized
Power supply		P1		DC24V

Electrical Specification

Part No.	HBV11T2020DC24
Isolation method	Electromagnetic isolation
Input load	Current type: $\leq 100\Omega$; Voltage type: $\geq 300K\Omega$
Overload capacity	Can withstand 2 times the rated value (continuous), 10 times the rated value (10s)
Output voltage	0-10VDC, 0-5VDC (load resistance=input voltage/10mADC) $\geq 10k\Omega$
Output current	0-20mADC, 4-20mADC (load resistance=10VDC/output current) $<500\Omega$
Output ripple	$\leq 0.5\%RO$
Working temperature	-20~55°C/less than 80% relative humidity (non condensing state)
Storage temperature	-20~70 °C/less than 70% relative humidity (non condensing state)
Hi-Pot	AC2KVrms/min
Insulation impedance	100M Ω Min at DC500V
Power consumption	about 1VA
Accuracy	DC $\pm 0.1\%$
Response time	$<10mS$
Complies	GB/T 18268