Catalogue

Open Loop Hall Effect DC Current Sensors

Transducers with Rectangle Windows

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Contents

Hall Effect DC Current Sensor CYHCT-BTV 1
Hall Effect DC Current Sensor CYHCT-BTC 3
Hall Effect DC Current Sensor CYHCT-FV 6
Hall Effect DC Current Sensor CYHCT-FC 8
Hall Effect DC Current Sensor CYHCT-FAV 10
Hall Effect DC Current Sensor CYHCT-FAC 12
Hall Effect DC Current Sensor CYHCT-KV (Split Core) 14
Hall Effect DC Current Sensor CYHCT-KC (Split Core) 16
Hall Effect DC Current Sensor CYHCT-KF2V (Split Core) 18
Hall Effect DC Current Sensor CYHCT-KF2C (Split Core) 20
Hall Effect DC Current Sensor CYHCT-K104V (Split Core) 22
Hall Effect DC Current Sensor CYHCT-K104C (Split Core) 24
Hall Effect DC Current Sensor CYHCT-C5 (Split Core) 26
Hall Effect DC Current Sensor CYHCT-KCV (Split Core) 30
Hall Effect DC Current Sensor CYHCT-KCC (Split Core) 32
Hall Effect DC Current Sensor CYHCT-HBV 34
Hall Effect DC Current Sensor CYHCT-HBC 36
Hall Effect DC Current Sensor CYHCT-K210V 38
Hall Effect DC Current Sensor CYHCT-K210C 40

Hall Effect DC Current Sensor CYHCT-BTV

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Light in weight • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic Equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage	Aperture measures (mm)	Part number
50	0 ~ ±50	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0%	20.5x10.5	CYHCT-BTV-U/B050A-xn
100	0 ~ ± 100			CYHCT-BTV-U/B100A-xn
200	0 ~ ± 200			CYHCT-BTV-U/B200A-xn
300	0 ~ ± 300			CYHCT-BTV-U/B300A-xn
400	0 ~ ±400			CYHCT-BTV-U/B400A-xn
500	0 ~ ±500			CYHCT-BTV-U/B500A-xn
600	0 ~ ±600			CYHCT-BTV-U/B600A-xn

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC, U: unidirectional, B: bidirectional)

Supply Voltage:	V_{cc}=+12V, +15V, +24V± 5%
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	2.5kV
Isolation resistance @ 500 VDC	> 500 MΩ

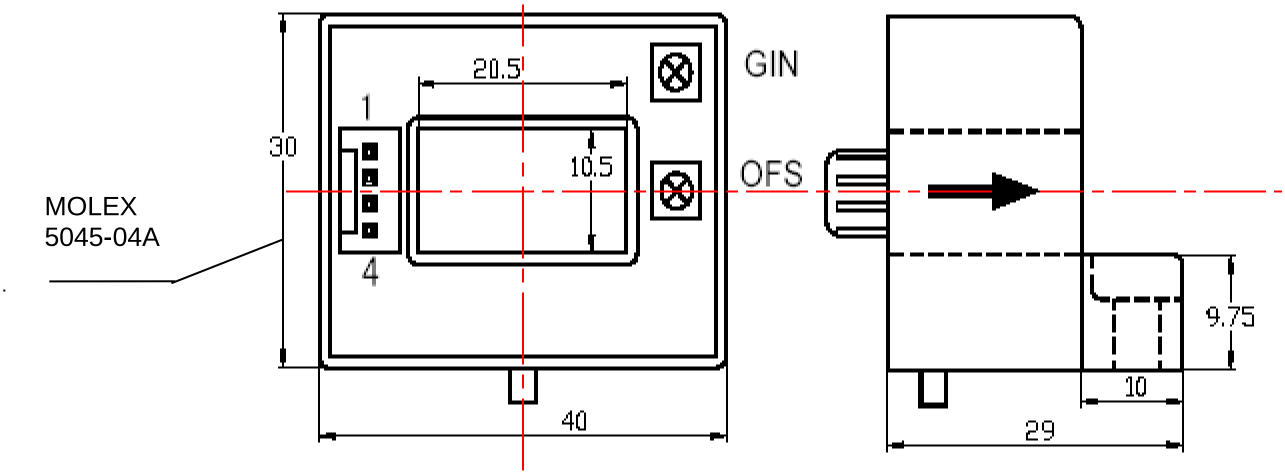
Accuracy and Dynamic performance data

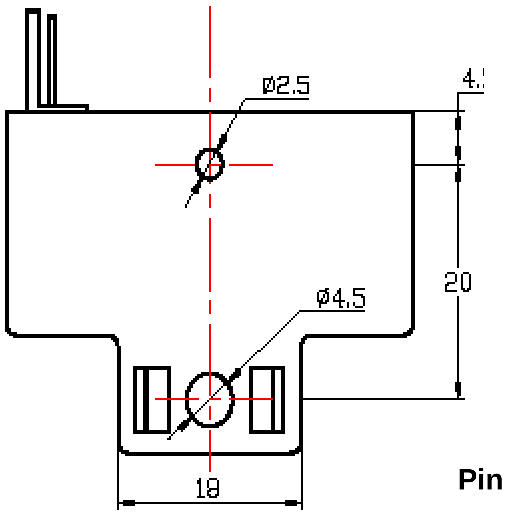
Accuracy at I_r, T_A=25°C,	<1.0% FS
Linearity from 0 to I_r, T_A=25°C,	<0.5% FS
Zero Output Voltage, T_A=25°C,	<50mV
Hysteresis offset voltage:	<±25mV
Thermal Drift of Offset Voltage,	<±1.0mV/°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P (*f*=1k Hz)	< 1ms

General Data

Ambient Operating Temperature, T_A = -25°C ~ +85°C
Ambient Storage Temperature, T_S =-40°C ~ +100°C

PIN Definition and Dimensions





Pin Arrangement:

1: Vcc; 2: Ground;
3: Output; 4: NC

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-BTC

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Light in weight • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal Current I_r (A)	Measuring Range (A)	Output Current (mA)	Window size (mm)	Part number
50	0 ~ ±50	4-20 ±1.0%	20.5x10.5	CYHCT-BTC-U/B050A-n
100	0 ~ ± 100			CYHCT-BTC-U/B100A-n
200	0 ~ ± 200			CYHCT-BTC-U/B200A-n
300	0 ~ ± 300			CYHCT-BTC-U/B300A-n
400	0 ~ ±400			CYHCT-BTC-U/B400A-n
500	0 ~ ±500			CYHCT-BTC-U/B500A-n
600	0 ~ ±600			CYHCT-BTC-U/B600A-n

(U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)
(n=3, *Vcc*= +12VDC ±5%; n=4, *Vcc* =+15VDC ±5%; n=5, *Vcc* =+24VDC±5%)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output current:	4-20mADC
Current Consumption	I_c < 25mA + Output current
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Isolation resistance @ 500 VDC	> 500 MΩ

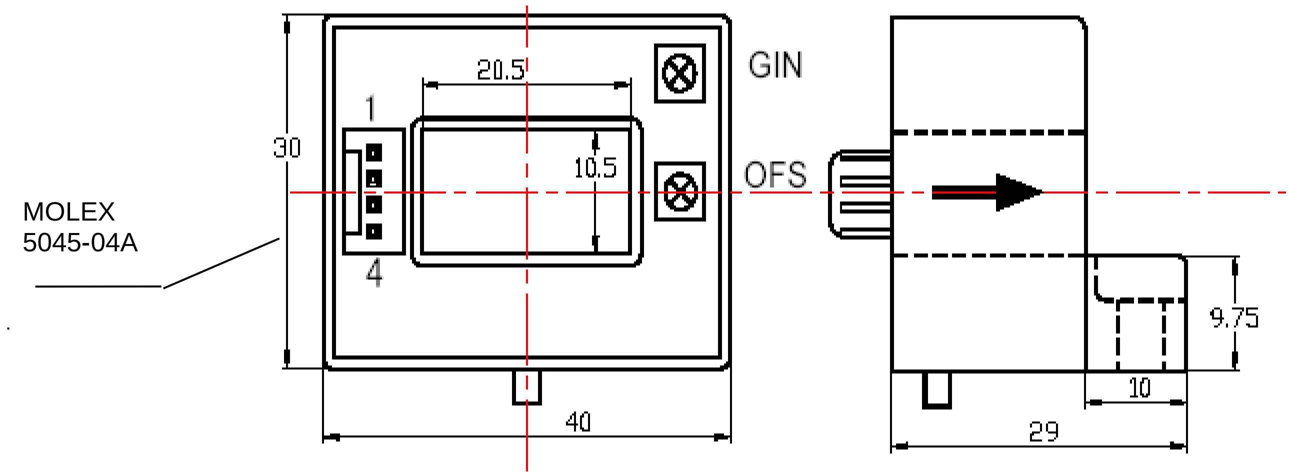
Accuracy and Dynamic performance data

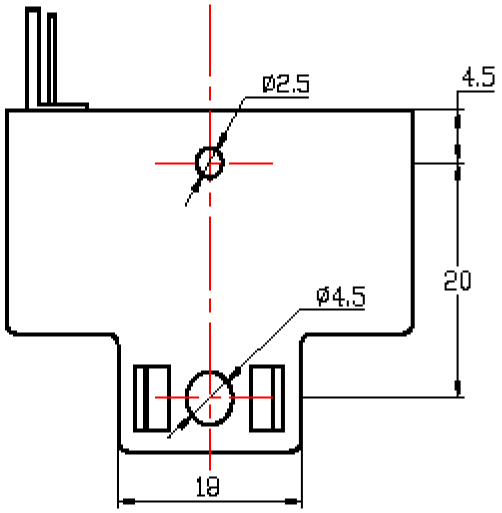
Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Response Time at 90% of I_P	t_r < 1ms
Load resistance:	80-450Ω
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz

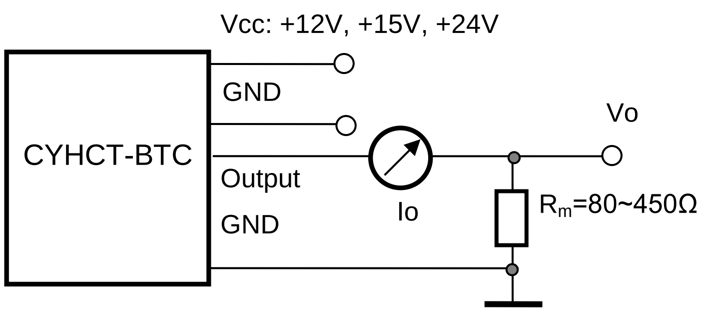
General Data

Ambient Operating Temperature, T_A = -25°C ~ +85°C
Ambient Storage Temperature, T_S =-40°C ~ +100°C

PIN Definition and Dimensions







Pin Arrangement:

1: Vcc;
2: Ground;
3: Output;
4: NC

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-FV

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Voltage (V)	Window size (mm)	Part number
200	0~±200	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0%	41x14	CYHCT-FV-U/B200A-xn
400	0~±400			CYHCT-FV-U/B400A-xn
500	0~±500			CYHCT-FV-U/B500A-xn
600	0~±600			CYHCT-FV-U/B600A-xn
800	0~±800			CYHCT-FV-U/B800A-xn
1000	0~±1000			CYHCT-FV-U/B1000A-xn
2000	0~±2000			CYHCT-FV-U/B2000A-xn

(n=2, *Vcc*= +12VDC±5%;; n=3, *Vcc* =+15VDC±5%;; n=4, *Vcc* =+24VDC±5%;,
U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Output Impedance:	R_{out} < 150Ω
Load resistance:	10kΩ

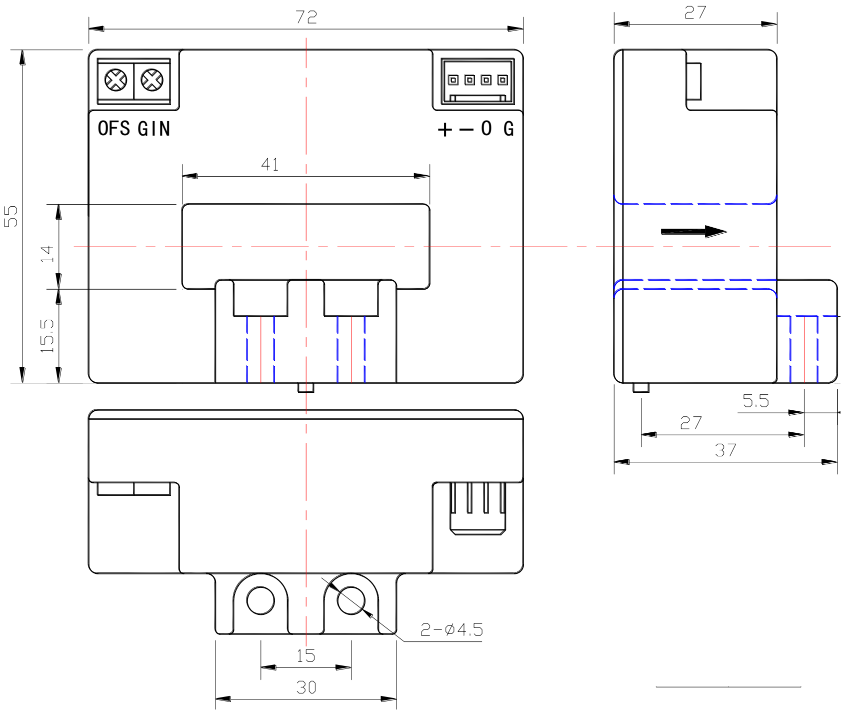
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <50mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±20mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Case Material:	PBT, heat resistant 100°C flame retardant
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C
Unit weight:	217g/unit

Dimensions



Pin Arrangement

+: Vcc
-: Ground
O: Output
G: Ground

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.

2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.

3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).

4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-FC

This Hall Effect current sensor is based on open loop compensating principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Current (mA)	Window Size (mm)	Part number
200	0~±200	4-20 ±1.0%	41x14	CYHCT-FC-U/B200A-n
400	0~±400			CYHCT-FC-U/B400A-n
500	0~±500			CYHCT-FC-U/B500A-n
600	0~±600			CYHCT-FC-U/B600A-n
800	0~±800			CYHCT-FC-U/B800A-n
1000	0~±1000			CYHCT-FC-U/B1000A-n
2000	0~±2000			CYHCT-FC-U/B2000A-n

(U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)
(n=3, *Vcc*= +12VDC ±5%; n=4, *Vcc* =+15VDC ±5%; n=5, *Vcc* =+24VDC±5%)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output current:	4-20mADC
Current Consumption	I_c < 25mA + Output current
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Isolation resistance @ 500 VDC	> 500 MΩ

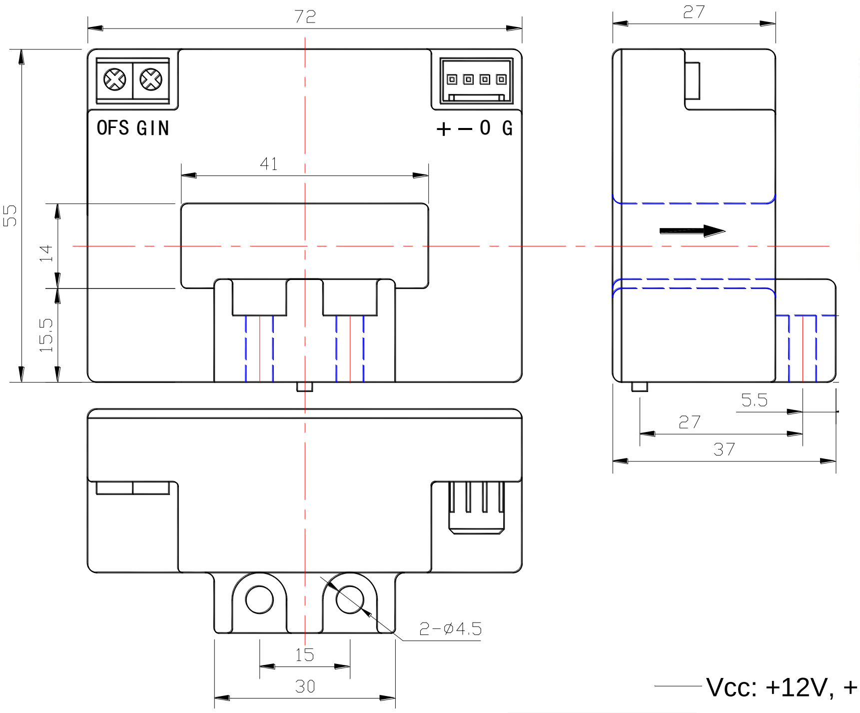
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C,	*X* <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Response Time at 90% of I_P	t_r < 1ms
Load resistance:	80-450Ω
Case Material:	PBT, heat resistant 125°C flame retardant
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz

General Data

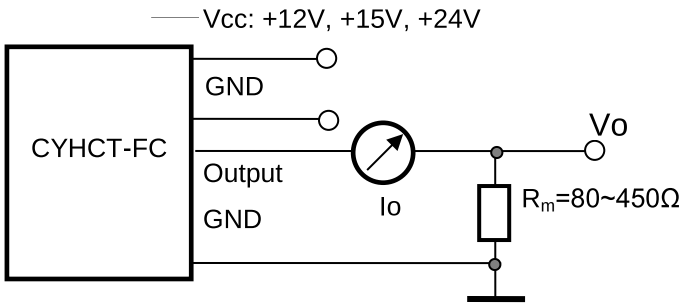
Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C
Unit weight:	217g/unit

Dimensions



Pin Arrangement

+: Vcc
-: Ground
O: Output
G: Ground



Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.

2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.

3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).

4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

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Hall Effect DC Current Sensor CYHCT-FAV

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Voltage (V)	Window Size (mm)	Part number
400	0~±400	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0%	51x13	CYHCT-FAV-U/B400A-xn
500	0~±500			CYHCT-FAV-U/B500A-xn
600	0~±600			CYHCT-FAV-U/B600A-xn
800	0~±800			CYHCT-FAV-U/B800A-xn
1000	0~±1000			CYHCT-FAV-U/B1000A-xn
1500	0~±1500			CYHCT-FAV-U/B1500A-xn
2000	0~±2000			CYHCT-FAV-U/B2000A-xn

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Output Impedance:	R_{out} < 150Ω
Load resistance:	10kΩ

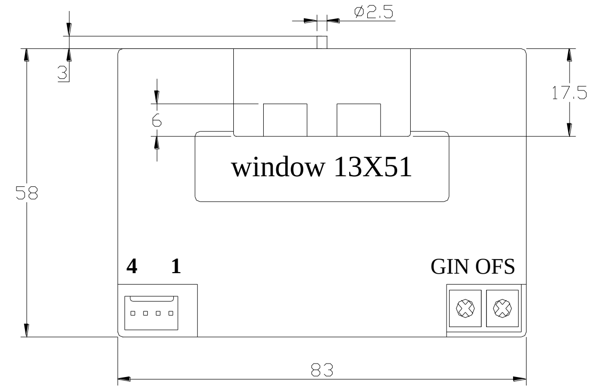
Accuracy and Dynamic performance data

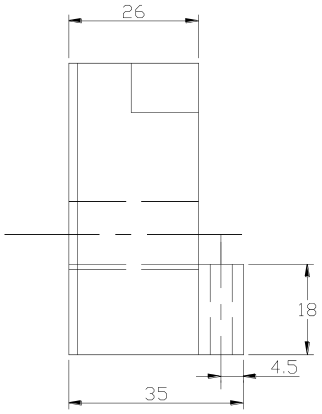
Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <50mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±20mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

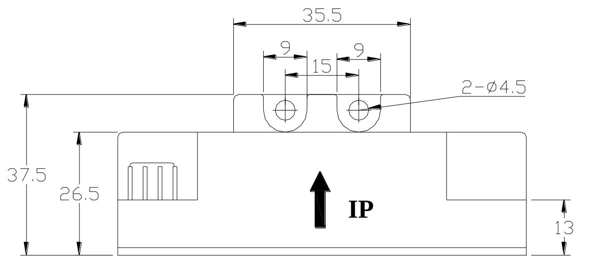
General Data

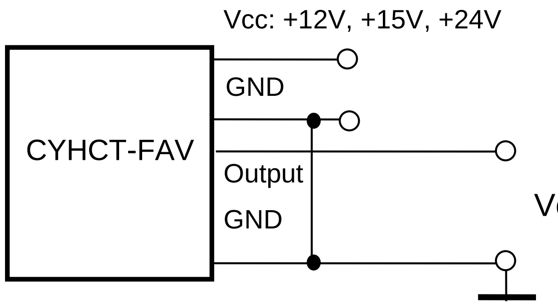
Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C
Unit weight:	300g/unit

Dimensions









Pin Arrangement

1: Vcc
2: Ground
3: Output
4: Ground

GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-FAC

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Current (mA)	Window Size (mm)	Part number
400	0~±400	4-20 ±1.0%	51x13	CYHCT-FAC-U/B400A-n
500	0~±500			CYHCT-FAC-U/B500A-n
600	0~±600			CYHCT-FAC-U/B600A-n
800	0~±800			CYHCT-FAC-U/B800A-n
1000	0~±1000			CYHCT-FAC-U/B1000A-n
1500	0~±1500			CYHCT-FAC-U/B1500A-n
2000	0~±2000			CYHCT-FAC-U/B2000A-n

(U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)
(n=3, *Vcc*= +12VDC ±5%; n=4, *Vcc* =+15VDC ±5%; n=5, *Vcc* =+24VDC±5%)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output current:	4-20mADC
Current Consumption	I_c < 25mA + Output current
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Isolation resistance @ 500 VDC	> 500 MΩ

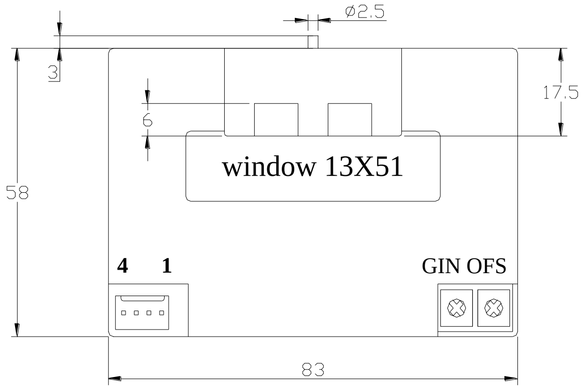
Accuracy and Dynamic performance data

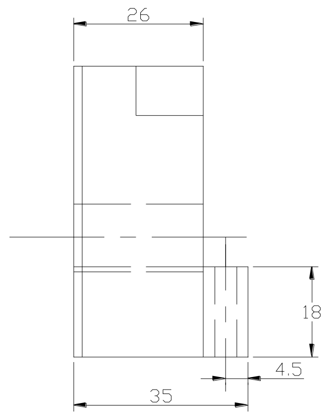
Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Response Time at 90% of I_P	t_r < 1ms
Load resistance:	80-450Ω
Case Material:	PBT, heat resistant 125°C flame retardant
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz

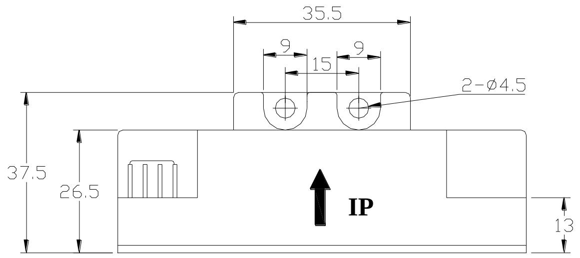
General Data

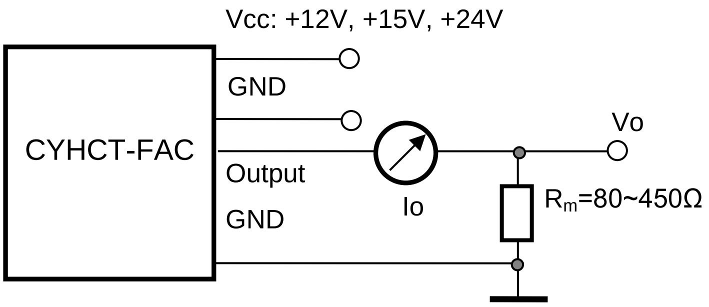
Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C
Unit weight:	300g/unit

Dimensions









Pin Arrangement

1: Vcc
2: Ground
3: Output
4: Ground

GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Split Core Hall Effect DC Current Sensor CYHCT-KV

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Using split cores and easy mounting • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Voltage (V)	Window Size (mm)	Part number
300	0~±300	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0%	64x16	CYHCT-KV-U/B300A-xn
500	0~±500			CYHCT-KV-U/B500A-xn
600	0~±600			CYHCT-KV-U/B600A-xn
800	0~±800			CYHCT-KV-U/B800A-xn
1000	0~±1000			CYHCT-KV-U/B1000A-xn
1500	0~±1500			CYHCT-KV-U/B1500A-xn
2000	0~±2000			CYHCT-KV-U/B2000A-xn

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC, U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Output Impedance:	R_{out} < 150Ω
Load resistance:	10kΩ

Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <50mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±20mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

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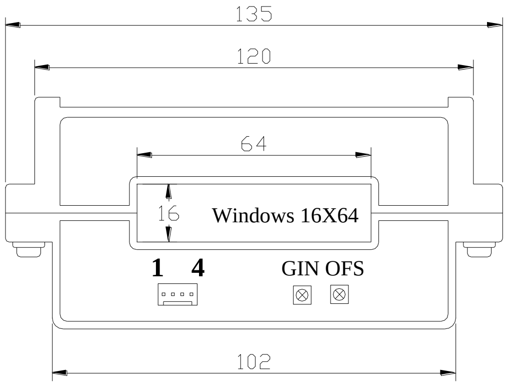
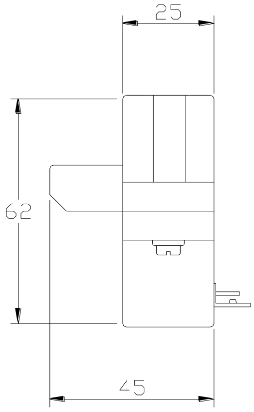
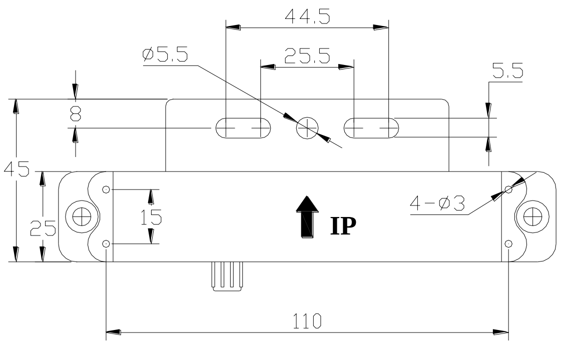
General Data

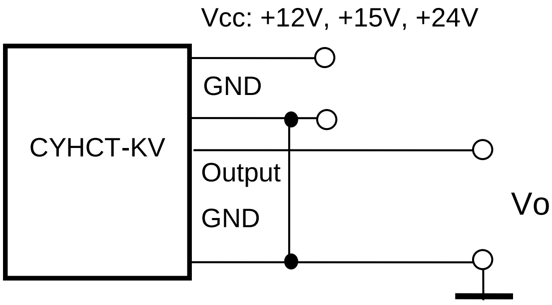
Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C
Unit weight:	300g/unit

Dimensions









Pin Arrangement

1: Vcc
2: Ground
3: Output
4: Ground

GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Split Core Hall Effect DC Current Sensor CYHCT-KC

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Using split cores and easy mounting • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Current (mA)	Window size (mm)	Part number
300	0~±300	4-20 ±1.0%	64x16	CYHCT-KC-U/B300A-n
500	0~±500			CYHCT-KC-U/B500A-n
600	0~±600			CYHCT-KC-U/B600A-n
800	0~±800			CYHCT-KC-U/B800A-n
1000	0~±1000			CYHCT-KC-U/B1000A-n
1500	0~±1500			CYHCT-KC-U/B1500A-n
2000	0~±2000			CYHCT-KC-U/B2000A-n

(U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)
(n=3, *Vcc*= +12VDC ±5%; n=4, *Vcc* =+15VDC ±5%; n=5, *Vcc* =+24VDC±5%)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Current Consumption	I_c < 25mA + Output current
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Isolation resistance @ 500 VDC	> 500 MΩ

Accuracy and Dynamic performance data

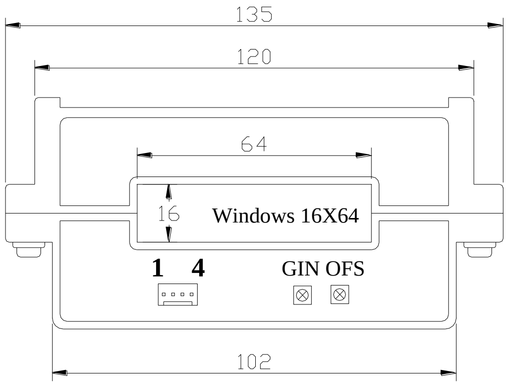
Accuracy at I_r, T_A=25°C,	*X* <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Response Time at 90% of I_P	t_r < 1ms
Load resistance:	80-450Ω
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz

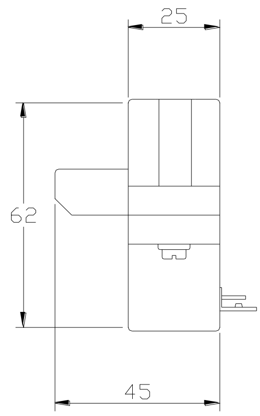
General Data

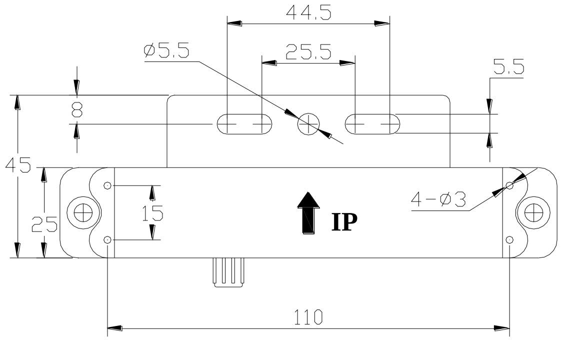
Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

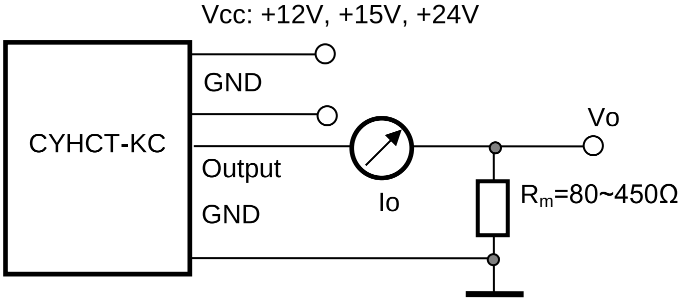
Unit weight:	300g/unit
Case Material:	PBT

Dimensions









Pin Arrangement

1: Vcc
2: Ground (GND)
3: Output
4: Ground (GND)

GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Split Core Hall Effect DC Current Sensor CYHCT-KF2V

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Using split cores and easy mounting • Less power consumption • Window structure with split core • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Voltage (V)	Window Size (mm)	Part number
500	0~±500	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0%	85 x 27	CYHCT-KF2V-U/B500A-xn
600	0~±600			CYHCT-KF2V-U/B600A-xn
800	0~±800			CYHCT-KF2V-U/B800A-xn
1000	0~±1000			CYHCT-KF2V-U/B1000A-xn
1500	0~±1500			CYHCT-KF2V-U/B1500A-xn
2000	0~±2000			CYHCT-KF2V-U/B2000A-xn
3000	0~±3000			CYHCT-KF2V-U/B3000A-xn

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC, U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Output Impedance:	R_{out} < 150Ω
Load resistance:	10kΩ

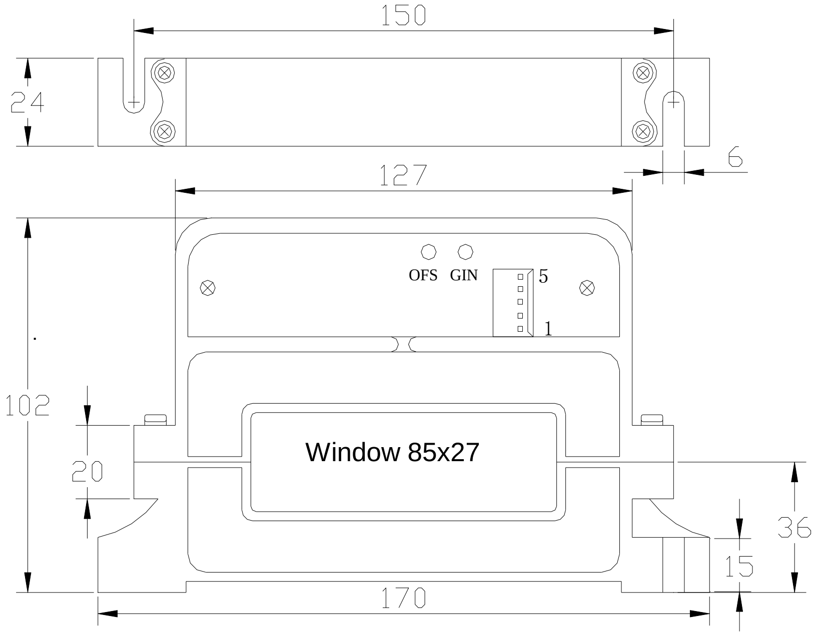
Accuracy and Dynamic performance data

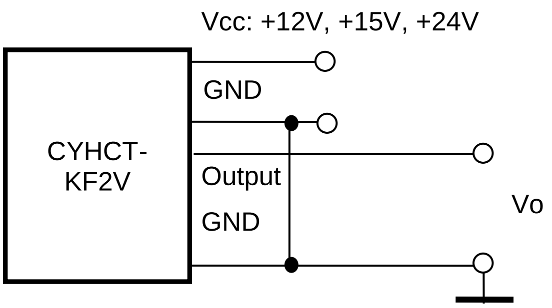
Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <50mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±20mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

Dimensions





Pin Arrangement

1: Vcc
2: Ground (GND)
3: Output
4: NC
5: NC

GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Split Core Hall Effect DC Current Sensor CYHCT-KF2C

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Using split cores and easy mounting • Less power consumption • Window structure with split core • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Current (mA)	Window Size (mm)	Part number
500	0~±500	4-20 ±1.0%	85 x 27	CYHCT-KF2C-U/B500A-n
600	0~±600			CYHCT-KF2C-U/B600A-n
800	0~±800			CYHCT-KF2C-U/B800A-n
1000	0~±1000			CYHCT-KF2C-U/B1000A-n
1500	0~±1500			CYHCT-KF2C-U/B1500A-n
2000	0~±2000			CYHCT-KF2C-U/B2000A-n
3000	0~±3000			CYHCT-KF2C-U/B3000A-n

(U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)
(n=3, *Vcc*= +12VDC ±5%; n=4, *Vcc* =+15VDC ±5%; n=5, *Vcc* =+24VDC±5%)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output current:	4-20mADC
Current Consumption	I_c < 25mA + Output current
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Isolation resistance @ 500 VDC	> 500 MΩ

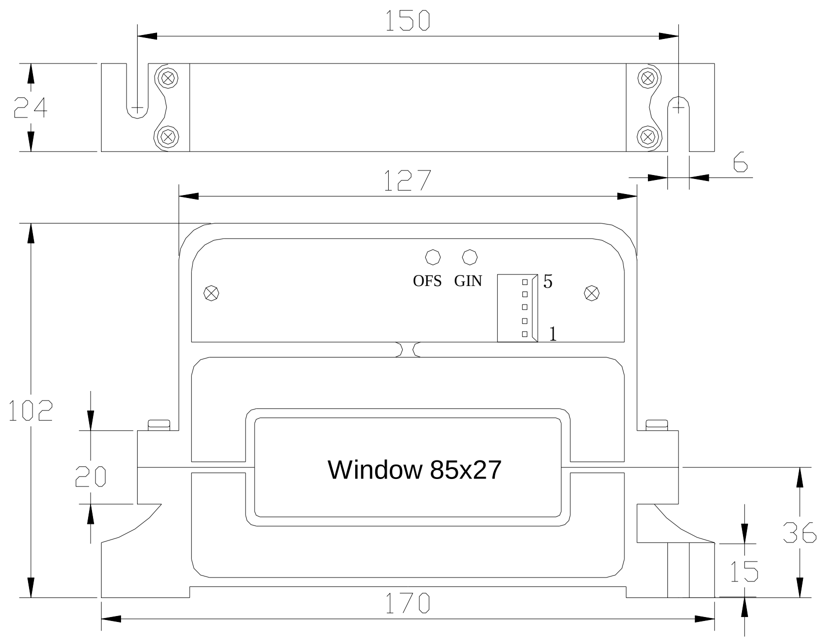
Accuracy and Dynamic performance data

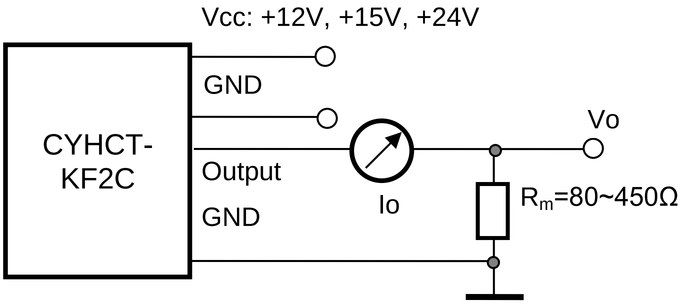
Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Response Time at 90% of I_P	t_r < 1ms
Load resistance:	80-450Ω
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

Dimensions





Pin Arrangement

1: Vcc
2: Ground (GND)
3: Output
4: NC
5: NC

GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Split Core Hall Effect DC Current Sensor CYHCT-K104V

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Using split cores and easy mounting • Less power consumption • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Voltage (V)	Window Size (mm)	Part number
500	0~±500	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0%	104 x 36	CYHCT-K104V-U/B500A-xn
1000	0~±1000			CYHCT-K104V-U/B1000A-xn
1500	0~±1500			CYHCT-K104V-U/B1500A-xn
2000	0~±2000			CYHCT-K104V-U/B2000A-xn
3000	0~±3000			CYHCT-K104V-U/B3000A-xn
4000	0~±4000			CYHCT-K104V-U/B4000A-xn
5000	0~±5000			CYHCT-K104V-U/B5000A-xn

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC, U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Output Impedance:	R_{out} < 150Ω
Load resistance:	10kΩ

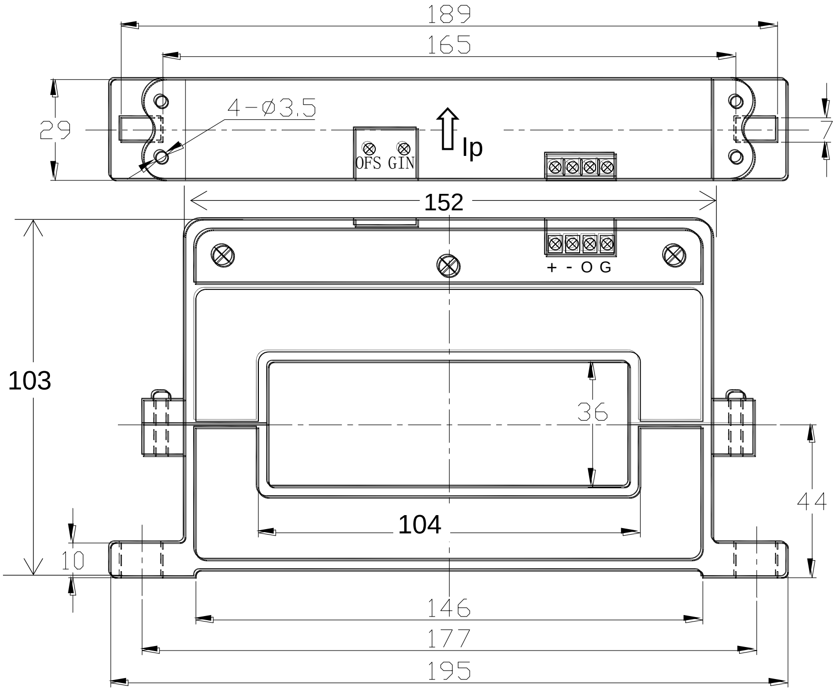
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <50mV
Magnetic Offset Voltage ($I_r \to 0$)	V_{om} <±20mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

General Data

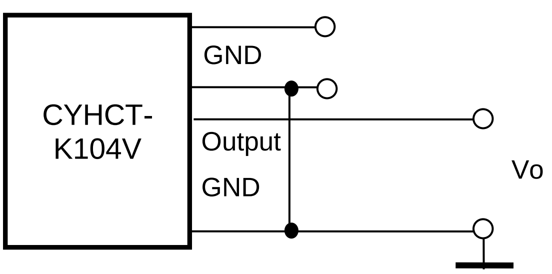
Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

Dimensions



Pin Arrangement

1(+): Vcc
2(-): Ground (GND)
3(O): Output
4(G): Ground (GND)



GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Split Core Hall Effect DC Current Sensor CYHCT-K104C

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Using split cores and easy mounting • Less power consumption • Window structure with split core • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Current (mA)	Window Size (mm)	Part number
500	0~±500	4-20 ±1.0%	104 x 36	CYHCT-K104C-U/B500A-n
1000	0~±1000			CYHCT-K104C-U/B1000A-n
1500	0~±1500			CYHCT-K104C-U/B1500A-n
2000	0~±2000			CYHCT-K104C-U/B2000A-n
3000	0~±3000			CYHCT-K104C-U/B3000A-n
4000	0~±4000			CYHCT-K104C-U/B4000A-n
5000	0~±5000			CYHCT-K104C-U/B5000A-n

(U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)
(n=3, *Vcc*= +12VDC ±5%; n=4, *Vcc* =+15VDC ±5%; n=5, *Vcc* =+24VDC±5%)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output current:	4-20mADC
Current Consumption	I_c < 25mA + Output current
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Isolation resistance @ 500 VDC	> 500 MΩ

Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Response Time at 90% of I_P	t_r < 1ms
Load resistance:	80-450Ω
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

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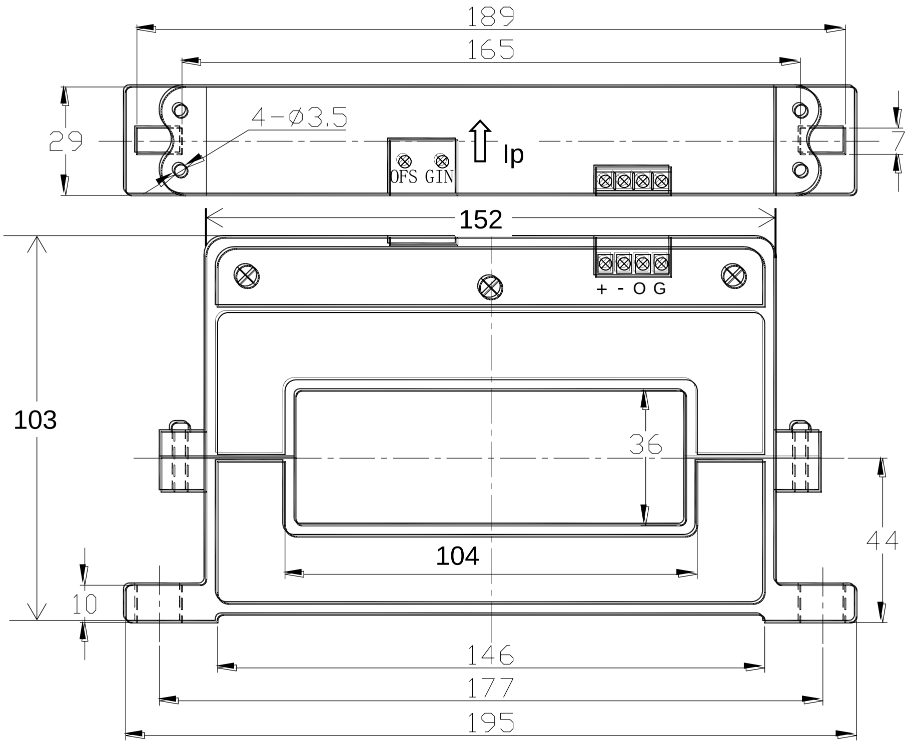
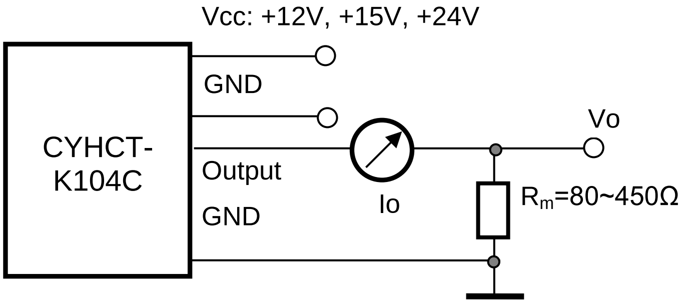
General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

Dimensions





Pin Arrangement

1(+): Vcc
2(-): Ground (GND)
3(O): Output
4(G): Ground (GND)

GIN: gain adjustment
OFS: offset adjustment

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

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Split Core Hall Effect DC Current Sensor CYHCT-C5

This Hall Effect current sensor is based on open loop principle and designed with a solid core and a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Small size • Light in weight • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electrolyzing and electroplating equipment • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Measuring range M	300A ~ 6000A DC
Linearity range	1.5 x M (for 300A ~ 4000A), 6500A (for >4000A)
Overload capacity	5 x M_{max} (maximum measuring range)
Nominal output signals	0-4V, 0-5V, 0-10V, -5V~+5V, 0-20mA, 4-20mA, -20mA~+20mA , ….
Supply voltage	+12VDC, +15VDC, +24VDC, ±12VDC, ±15VDC
Current consumption	18mA ~ 50mA + output current
Galvanic isolation	3KV RMS/50Hz/min

Accuracy and Dynamic Performances

Zero offset voltage	±20	mV
Hysteresis error	±10	mV
Thermal drift of offset current	≤500	ppm/°C
Response time	≤1 (di/dt=50A/μs)	ms
Accuracy	±1.0	%
Linearity	≤1.0	%FS

General Data

Operating temperature	-10 ~ +80	°C
Storage temperature	-25 ~ +85	°C

Definition of Part number:

CYHCT	-	C5	-	M	-	x	n
(1)		(2)		(3)		(4)	(5)

(1)	(2)	(3)	(4)	(5)
Series name	Case style	Rated Input current (M=U/B + m)	Output signal	Power supply
CYHCT	C5	m = 300A, 400A, 500A, 600A, 700A, 800A, 1000A, 2000A,3000A, 4000A, 5000A,6000A	**x=0:** 0-4V DC **x=3:** 0-5V DC **x=4:** 0-20mA DC **x=5:** 4-20mA DC **x=8:** 0-10V DC	**n=2:** +12V DC **n=3:** +15V DC **n=4:** +24V DC **n=5:** ±12V DC **n=6:** ±15V DC

U: unidirectional input current; **B:** bidirectional input current

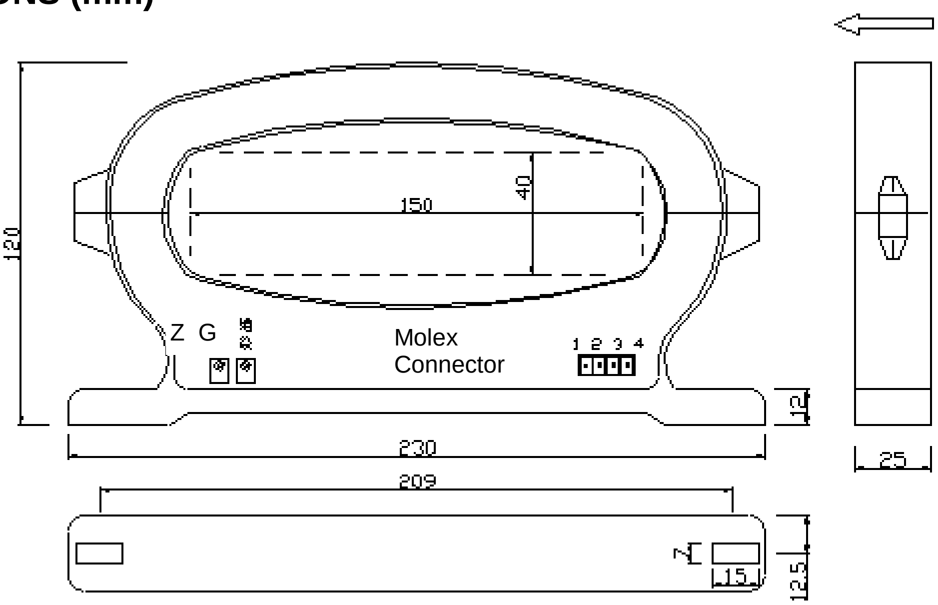
Output Signal of Custom Made Sensors:

x=1: tracing voltage 5V DC, **x=2:** tracing current 20mA DC

Example 1: CYHCT-C5-U1000A -34, Hall Effect DC Current sensor with
Output signal: 0-5V DC
Power supply: +24V DC
Rated input current: 0-1000A DC

Example 2: CYHCT-C5-B1000A -34, Hall Effect DC Current sensor with
Output signal: 0-5V DC
Power supply: +24V DC
Rated input current: -1000A ~ +1000ADC

DIMENSIONS (mm)



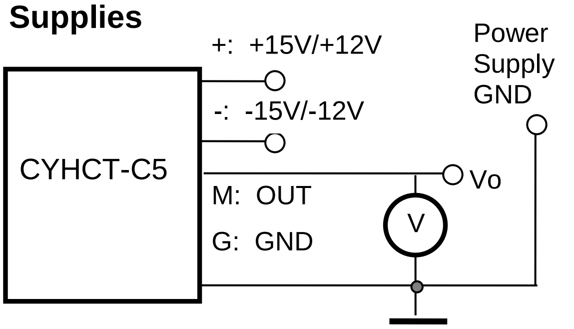
CONNECTION

The current carrying cable must pass through the window. The phase of output is the same as that of the current passing the window in the direction of the arrow indicated on the case.

a) Wiring of Sensors Using Double Power Supplies

Voltage Output

1(+): +15V/+12V Power Supply
2(-): -15V/-12V Power Supply
3(M): Output
4(G): Ground

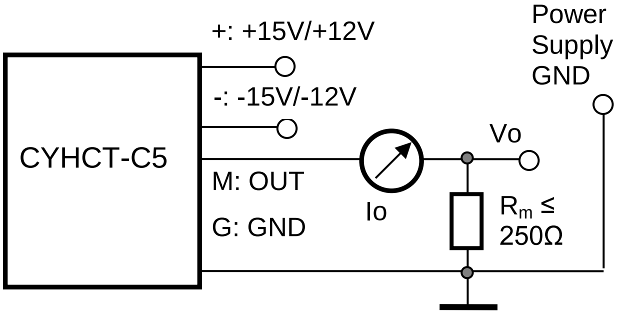


Relation between Input and Output:

Sensor CYHCT-C5-U1000A -35		Sensor CYHCT-C5-B1000A -35	
Input current (A)	Output voltage (V)	Input current (A)	Output voltage (V)
0	0	-1000	0
250	1.25	-500	1.25
500	2.5	0	2.5
750	3.75	500	3.75
1000	5	1000	5

Current Output

1(+): +15V/+12V Power Supply
2(-): -15V/-12V Power Supply
3(M): Output
4(G): Ground



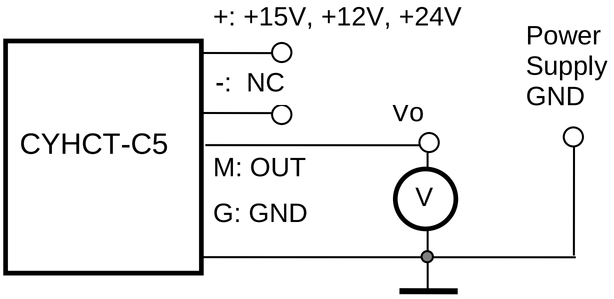
Relation between Input and Output (for R_m=250 Ω):

Sensor CYHCT-C5-U1000A -45			Sensor CYHCT-C5-B1000A -45		
Input current (A)	Output current Io(mA)	Output voltage Vo (V)	Input current (A)	Output current Io(mA)	Output voltage Vo (V)
0	0	0	-1000	0	0
250	5	1.25	-500	5	1.25
500	10	2.5	0	10	2.5
750	15	3.75	500	15	3.75
1000	20	5	1000	20	5

B) Wiring of Sensors Using Single Power Supply

Voltage Output

1(+): +15V, +12V, +24V
2(-): NC
3(M): Output
4(G): Ground

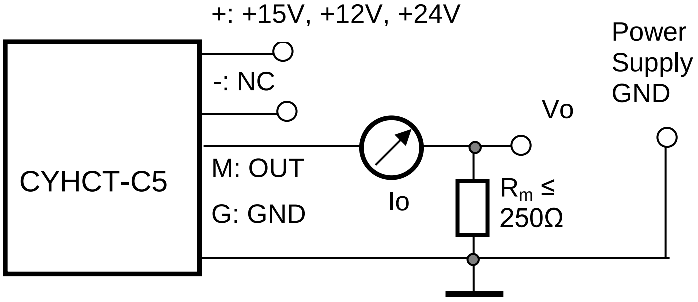


Relation between Input and Output:

Sensor CYHCT-C5-U1000A -34		Sensor CYHCT-C5-B1000A -34	
Input current (A)	Output voltage (V)	Input current (A)	Output voltage (V)
0	0	-1000	0
250	1.25	-500	1.25
500	2.5	0	2.5
750	3.75	500	3.75
1000	5	1000	5

Current Output

1(+): +15V, +12V, +24V
2(-): NC
3(M): Output
4(G): Ground



Relation between Input and Output (for R_m=250 Ω):

Sensor CYHCT-C5-U1000A -54			Sensor CYHCT-C5-B1000A -54		
Input current (A)	Output current Io(mA)	Output voltage Vo (V)	Input current (A)	Output current Io(mA)	Output voltage Vo (V)
0	4	1	-1000	4	1
250	8	2	-500	8	2
500	12	3	0	12	3
750	16	4	500	16	4
1000	20	5	1000	20	5

Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer case.

Split Core Hall Effect DC Current Sensor CYHCT-KCV

This Hall Effect current sensor is based on open loop principle and designed with a split core and a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Light in weight • Less power consumption • Window structure with split core • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• Photovoltaic equipment • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Numerical controlled machine tools • Electrolyzing and electroplating equipment • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data/Input

Primary Nominal DC Current I_r (A)	Primary Current Measuring Range I_p(A)	Output Voltage (V)	Part number
1000A	0 ~ ± 1000A	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0% (For 0-10V output the power supply must be 15VDC or 24VDC)	CYHCT-KCV-U/B1000A-xn
2000A	0 ~ ± 2000A		CYHCT-KCV-U/B2000A-xn
3000A	0 ~ ± 3000A		CYHCT-KCV-U/B3000A-xn
4000A	0 ~ ± 4000A		CYHCT-KCV-U/B4000A-xn
5000A	0 ~ ± 5000A		CYHCT-KCV-U/B5000A-xn
6000A	0 ~ ± 6000A		CYHCT-KCV-U/B6000A-xn
8000A	0 ~ ± 8000A		CYHCT-KCV-U/B8000A-xn
10000A	0 ~ ± 10000A		CYHCT-KCV-U/B10000A-xn

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC, n=5, *Vcc* =±12VDC, n=6, *Vcc* =±15VDC, n=7, *Vcc* =±24VDC, U: unidirectional, B: bidirectional)

Supply Voltage:	V_{cc}=+12V, +15V, +24V± 5%
Current Consumption	I_c < 50mA
Isolation Voltage	6kV, 50/60Hz, 1min

Electrical Data/Output

Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Output Impedance:	R_{out} < 150Ω
Load Resistor:	R_L > 10kΩ

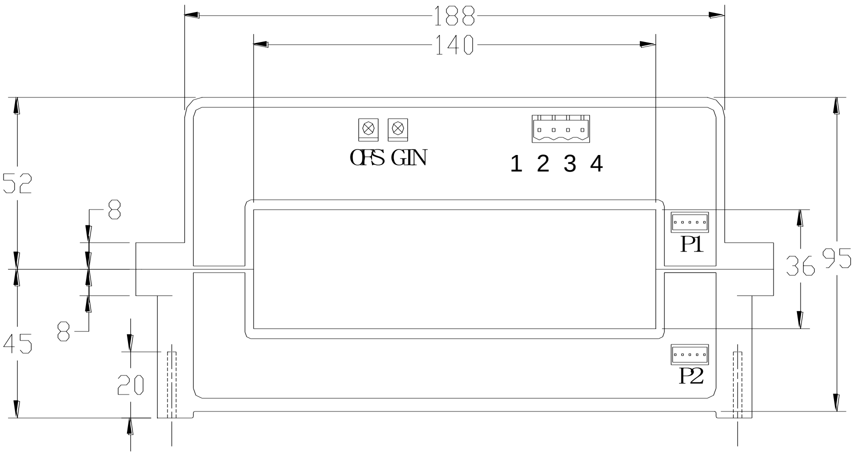
Accuracy

Accuracy at I_r, T_A=25°C (without offset),	X <1.0%
Linearity from 0 to I_r, T_A=25°C,	E_L <1.0% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <25mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±30mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC-3 kHz

General Data

Ambient Operating Temperature, T_A =-25°C ~ +85°C
Ambient Storage Temperature, T_S =-40°C ~ +100°C

PIN Definition and Dimensions



OFS: Offset Adjustment

GIN: Gain Adjustment

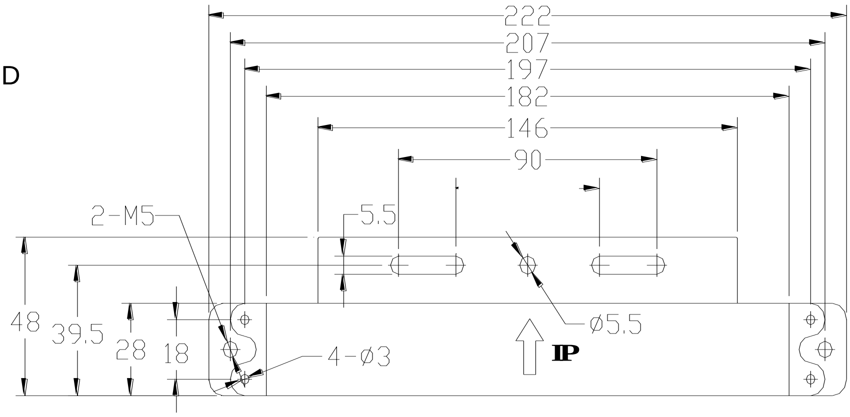
Pin arrangement:

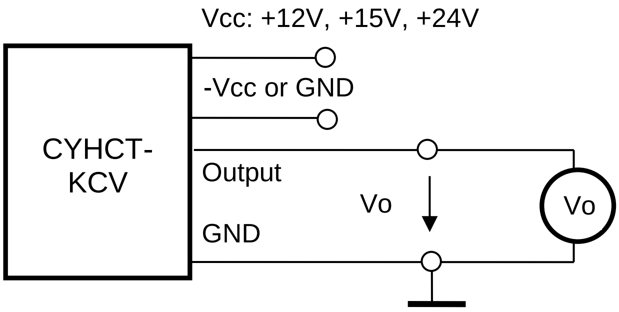
1(V+): Vcc

2(V-): -Vcc or GND

3(OUT): OUTPUT

4(GND): 0V (GND)





Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Split Core Hall Effect DC Current Sensor CYHCT-KCC

This Hall Effect current sensor is based on open loop principle and designed with a split core and a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure with split core • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• Photovoltaic equipment • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Numerical controlled machine tools • Electrolyzing and electroplating equipment • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data/Input

Primary Nominal DC Current I_r (A)	Primary Current Measuring Range I_p(A)	Output current (mA)	Part number
1000A	0 ~ ± 1000A	4-20mA	CYHCT-KCC-U/B1000A-n
2000A	0 ~ ± 2000A		CYHCT-KCC-U/B2000A-n
3000A	0 ~ ± 3000A		CYHCT-KCC-U/B3000A-n
4000A	0 ~ ± 4000A		CYHCT-KCC-U/B4000A-n
5000A	0 ~ ± 5000A		CYHCT-KCC-U/B5000A-n
6000A	0 ~ ± 6000A		CYHCT-KCC-U/B6000A-n
8000A	0 ~ ± 8000A		CYHCT-KCC-U/B8000A-n
10000A	0 ~ ± 10000A		CYHCT-KCC-U/B10000A-n

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC, n=5, *Vcc* =±12VDC, n=6, *Vcc* =±15VDC, n=7, *Vcc* =±24VDC, U: unidirectional, B: bidirectional)

Supply Voltage:	V_{cc}=+12V, +15V, +24V± 5%
Current Consumption	I_c < 50mA + Output current
Isolation Voltage	6kV, 50/60Hz, 1min

Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (without offset),	<1.0%
Linearity from 0 to I_r, T_A=25°C,	E_L <1.0% FS
Electric Offset Current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset current,	<±0.005mA/°C
Load resistance:	80-450Ω
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC-3 kHz

General Data

Ambient Operating Temperature,	T_A =-25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

PIN Definition and Dimensions

OFS: Offset Adjustment

GIN: Gain Adjustment

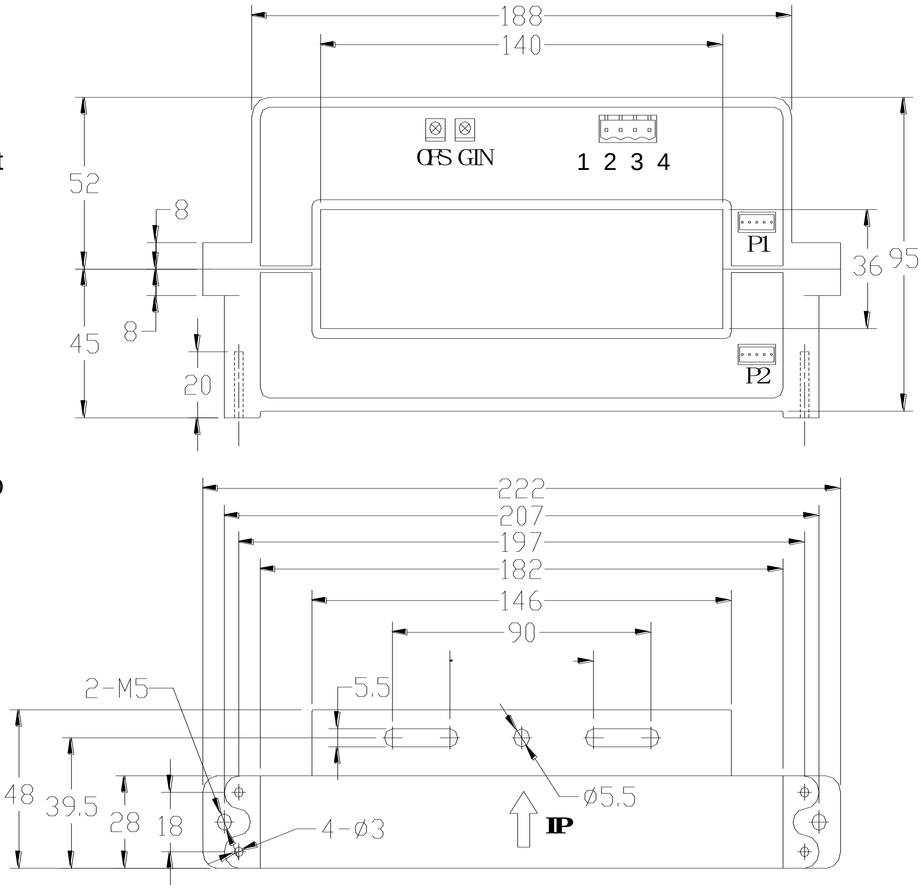
Pin arrangement:

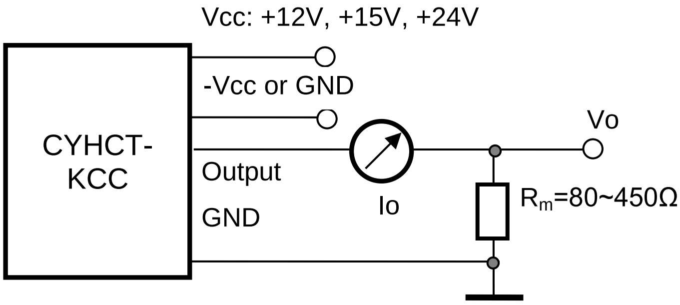
1(V+): Vcc

2(V-): -Vcc or GND

3(OUT): OUTPUT

4(GND): 0V (GND)





Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-HBV

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse current etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Voltage (V)	Window Size (mm)	Part number
2000	0~±2000	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0%	140 x 50	CYHCT-HBV-U/B2000A-xn
3000	0~±3000			CYHCT-HBV-U/B3000A-xn
4000	0~±4000			CYHCT-HBV-U/B4000A-xn
5000	0~±5000			CYHCT-HBV-U/B50000A-xn
6000	0~±6000			CYHCT-HBV-U/B6000A-xn
8000	0~±8000			CYHCT-HBV-U/B8000A-xn
10000	0~±10000			CYHCT-HBV-U/B10000A-xn

(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC, U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Output Impedance:	R_{out} < 150Ω
Load resistance:	10kΩ

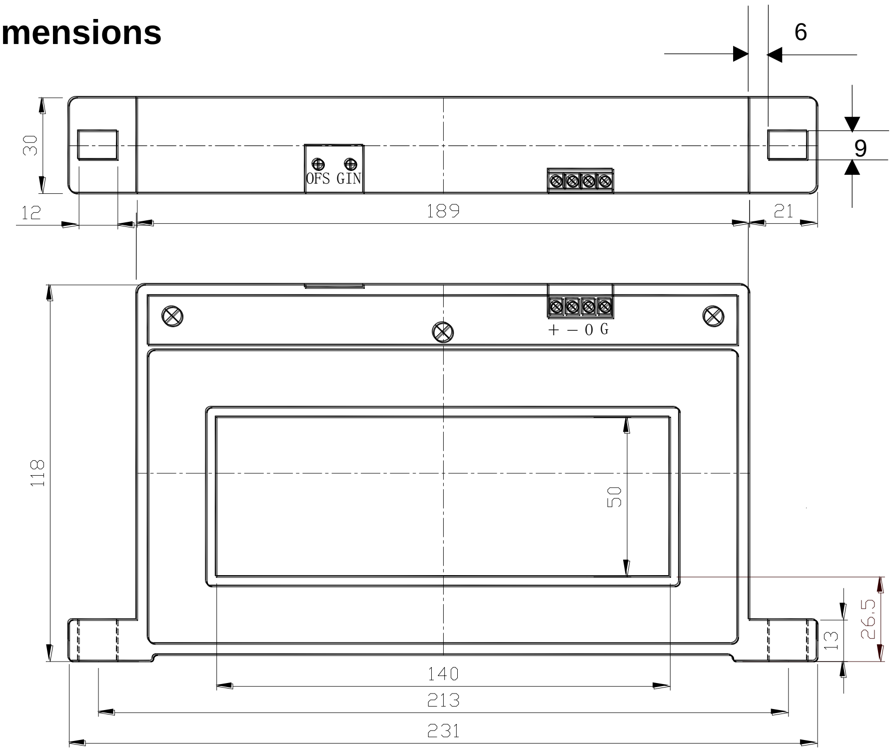
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <50mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±20mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

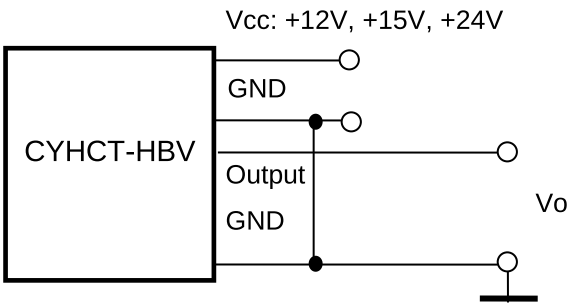
Dimensions



Pin Arrangement

+: Vcc
-: Ground (GND)
O: Output
G: Ground (GND)

GIN: gain adjustment
OFS: offset adjustment



Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-HBC

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current, DC pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • easy mounting • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• **Photovoltaic equipment** • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Measuring Range (A)	DC Output Current (mA)	Window Size (mm)	Part number
2000	0~±2000	4-20 ±1.0%	140 x 50	CYHCT-HBC-U/B2000A-n
3000	0~±3000			CYHCT-HBC-U/B3000A-n
4000	0~±4000			CYHCT-HBC-U/B4000A-n
5000	0~±5000			CYHCT-HBC-U/B5000A-n
6000	0~±6000			CYHCT-HBC-U/B6000A-n
8000	0~±8000			CYHCT-HBC-U/B8000A-n
10000	0~±10000			CYHCT-HBC-U/B10000A-n

(U: unidirectional input current; B: bidirectional input current, please give U or B in Part number)
(n=3, *Vcc*= +12VDC ±5%; n=4, *Vcc* =+15VDC ±5%; n=5, *Vcc* =+24VDC±5%)

Supply Voltage	V_{cc}= +12V, +15V, +24VDC ± 5%
Output current:	4-20mADC
Current Consumption	I_c < 25mA + Output current
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Isolation resistance @ 500 VDC	> 500 MΩ

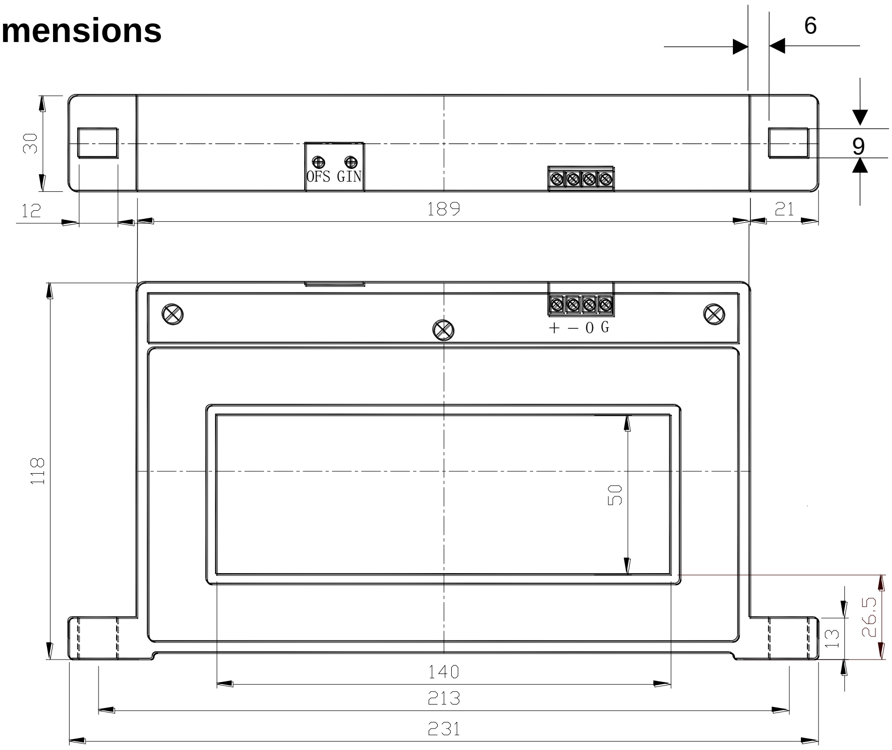
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C,	X <±1.0% FS
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Response Time at 90% of I_P	t_r < 1ms
Load resistance:	80-450Ω
Frequency Bandwidth (-3dB),	f_b = DC - 20 kHz
Case Material:	PBT

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

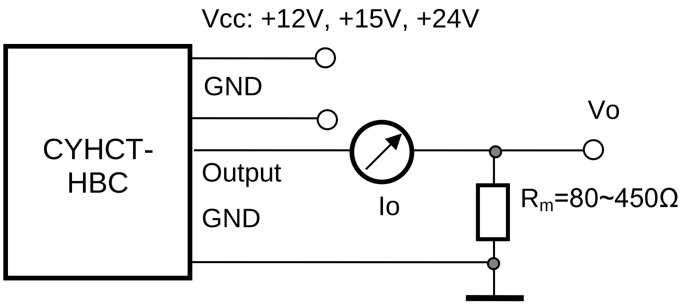
Dimensions



Pin Arrangement

+: Vcc
-: Ground (GND)
O: Output
G: Ground (GND)

GIN: gain adjustment
OFS: offset adjustment



Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-K210V

This Hall Effect current sensor is based on open loop principle and designed with high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• Photovoltaic equipment • Frequency conversion timing equipments • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Numerical controlled machine tools • Electrolyzing and electroplating equipments • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal DC Current I_r (A)	Primary Current Measuring Range I_p(A)	Output Voltage (V)	Part number
3000A	0 ~ ± 3000A	x=0: 0-4V ±1.0% x=3: 0-5V ±1.0% x=8: 0-10V ±1.0% (For 0-10V output the power supply must be 15VDC or 24VDC) x=S: Special output	CYHCT-K210V-U/B3000A-xn
4000A	0 ~ ± 4000A		CYHCT-K210V-U/B4000A-xn
5000A	0 ~ ± 5000A		CYHCT-K210V-U/B5000A-xn
6000A	0 ~ ± 6000A		CYHCT-K210V-U/B6000A-xn
8000A	0 ~ ± 8000A		CYHCT-K210V-U/B8000A-xn
10000A	0 ~ ± 10000A		CYHCT-K210V-U/B10000A-xn
15000A	0 ~ ± 15000A		CYHCT-K210V-U/B15000A-xn
20000A	0 ~ ± 20000A		CYHCT-K210V-U/B20000A-xn

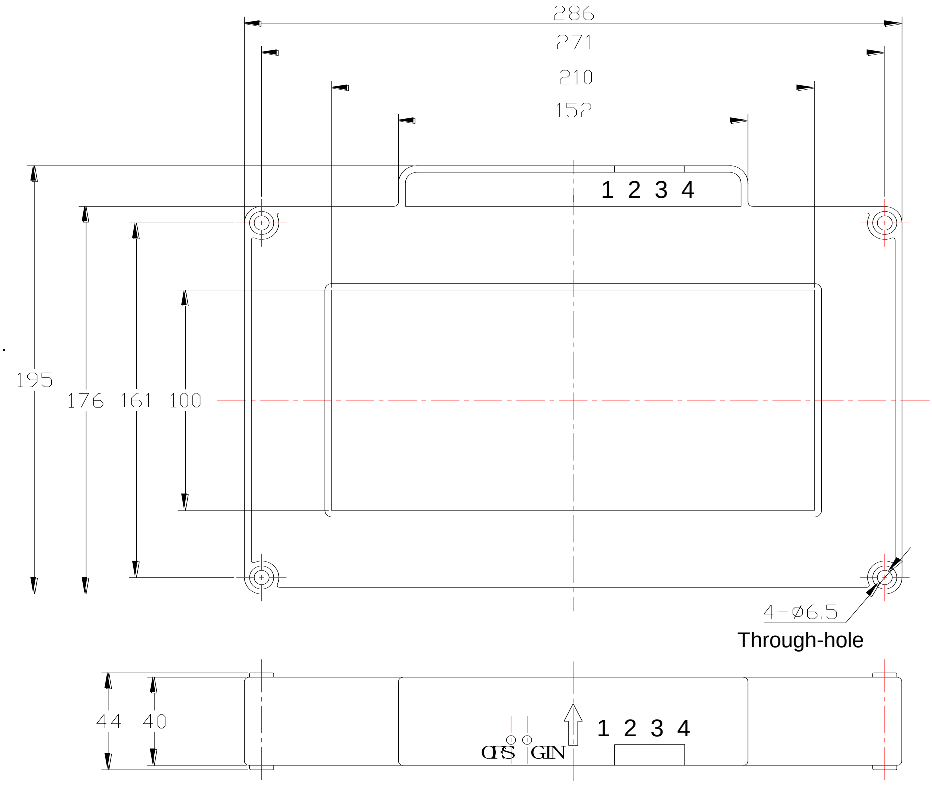
(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC; n=5, *Vcc* =±12VDC; n=6, *Vcc* =±15VDC; n=7, *Vcc* =±24VDC; n=8, Vcc=+125VDC. U: unidirectional, B: bidirectional, please give U or B in the part number)

Supply Voltage:	V_{cc}=+12V, +15V, +24V± 5%
Current Consumption	I_c < 50mA
Isolation Voltage	6kV, 50/60Hz, 1min
Output Voltage at I_r, T_A=25°C:	V_{out} =0- 4V, 0-5V, 0-10VDC
Output Impedance:	R_{out} < 150Ω
Load Resistor:	R_L > 10kΩ
Accuracy at I_r, T_A=25°C (without offset),	X <1.0%
Linearity from 0 to I_r, T_A=25°C,	E_L <1.0% FS
Linear Measuring range,	1.2 times of measuring range
Overload capability,	3 times of measuring range
Electric Offset Voltage, T_A=25°C,	V_{oe} <30mV
Magnetic Offset Voltage ($I_r \to 0$)	V_{om} <±40mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC-3kHz

General Data

Ambient Operating Temperature,	T_A =-25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

PIN Definition and Dimensions



Pin arrangement:

1(V+): Vcc

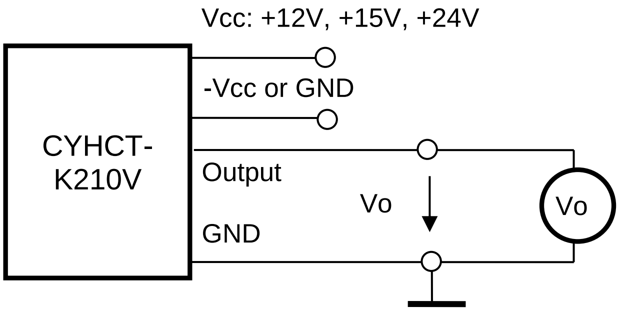
2(V-): -Vcc or GND

3(OUT): OUTPUT

4(GND): 0V (GND)

OFS: Offset Adjustment

GIN: Gain Adjustment



Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of primary current is the same as the direction of arrow marked on the transducer

Hall Effect DC Current Sensor CYHCT-K210C

This Hall Effect current sensor is based on open loop principle and designed with a high galvanic isolation between primary conductor and secondary circuit. It can be used for measurement of DC current etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability	• Photovoltaic equipment • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Numerical controlled machine tools • Electrolyzing and electroplating equipment • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data/Input

Primary Nominal DC Current I_r (A)	Primary Current Measuring Range I_p(A)	Output current (mA)	Part number
3000A	0 ~ ± 3000A	4-20mA	CYHCT-K210C-U/B3000A-n
4000A	0 ~ ± 4000A		CYHCT-K210C-U/B4000A-n
5000A	0 ~ ± 5000A		CYHCT-K210C-U/B5000A-n
6000A	0 ~ ± 6000A		CYHCT-K210C-U/B6000A-n
8000A	0 ~ ± 8000A		CYHCT-K210C-U/B8000A-n
10000A	0 ~ ± 10000A		CYHCT-K210C-U/B10000A-n
15000A	0 ~ ± 15000A		CYHCT-K210C-U/B15000A-n
20000A	0 ~ ± 20000A		CYHCT-K210C-U/B20000A-n

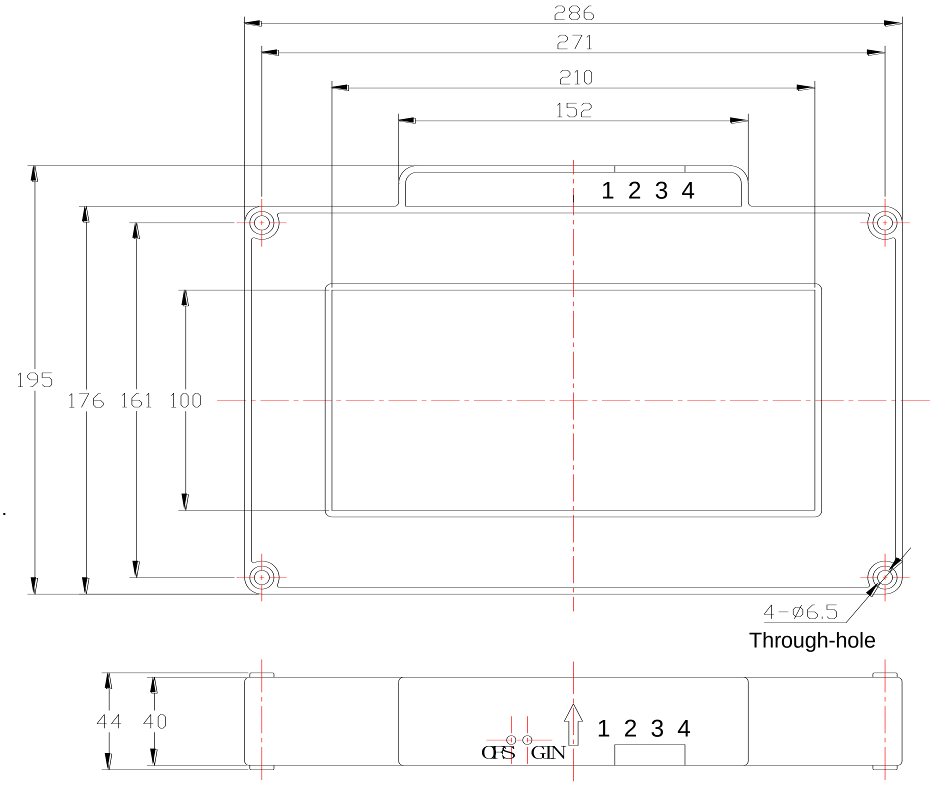
(n=2, *Vcc*= +12VDC; n=3, *Vcc* =+15VDC; n=4, *Vcc* =+24VDC; n=5, *Vcc* =±12VDC;
n=6, *Vcc* =±15VDC; n=7, *Vcc* =±24VDC; n=8, Vcc=+125VDC. U: unidirectional, B: bidirectional)

Supply Voltage:	V_{cc}=+12V, +15V, +24V± 5%
Current Consumption	I_c < 50mA + Output current
Isolation Voltage	6kV, 50/60Hz, 1min

Electrical Properties

Accuracy at I_r, T_A=25°C (without offset),	<1.0%
Linearity from 0 to I_r, T_A=25°C,	E_L <1.0% FS
Linear Measuring range,	1.2 times of measuring range
Overload capability,	3 times of measuring range
Electric Offset Current, T_A=25°C,	4mA DC or 12mA DC
Thermal Drift of Offset Current,	<±0.005mA/°C
Load resistance:	80-450Ω
Response Time at 90% of I_P (f=1k Hz)	t_r < 1ms
Frequency Bandwidth (-3dB),	f_b = DC-3 kHz
Ambient Operating Temperature,	T_A =-25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

PIN Definition and Dimensions

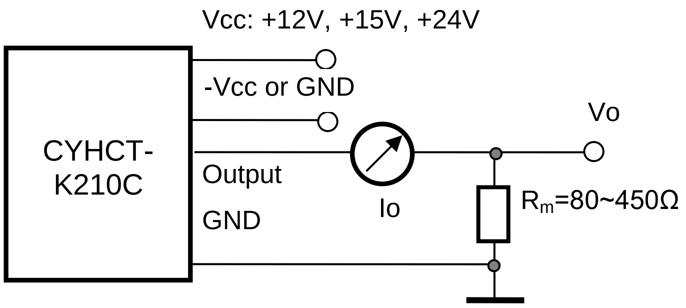


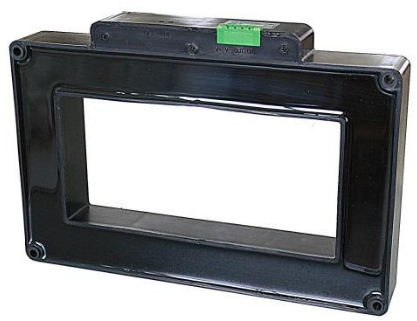
Pin arrangement:

1(V+):	Vcc
2(V-):	-Vcc or GND
3(OUT):	OUTPUT
4(GND):	0V (GND)

OFS: Offset Adjustment

GIN: Gain Adjustment





Notes:

1. Connect the terminals of power source, output respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer