Catalogue

Open Loop Hall Effect AC/DC Current Sensors/ Transducers with Rectangle Windows

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Contents

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Hall Effect AC/DC Current Sensor CYHCS-K3/BR

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 and AC current, 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 • 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

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog) (V)	Window Size (mm)	Part number
50	± 150	4 +1.0%	20.5x10.5	CYHCS-K3/BR-050A
100	± 300			CYHCS-K3/BR-100A
200	± 600			CYHCS-K3/BR-200A
300	± 900			CYHCS-K3/BR-300A
400	±1000			CYHCS-K3/BR-400A
500	±1000			CYHCS-K3/BR-500A
600	±1000			CYHCS-K3/BR-600A

Supply Voltage	V_{cc}= ±15V ± 5%,
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 (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} <±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±0.5mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Frequency bandwidth (- 3 dB):	DC-50kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 3µs
di/dt following accuracy:	70A/µs

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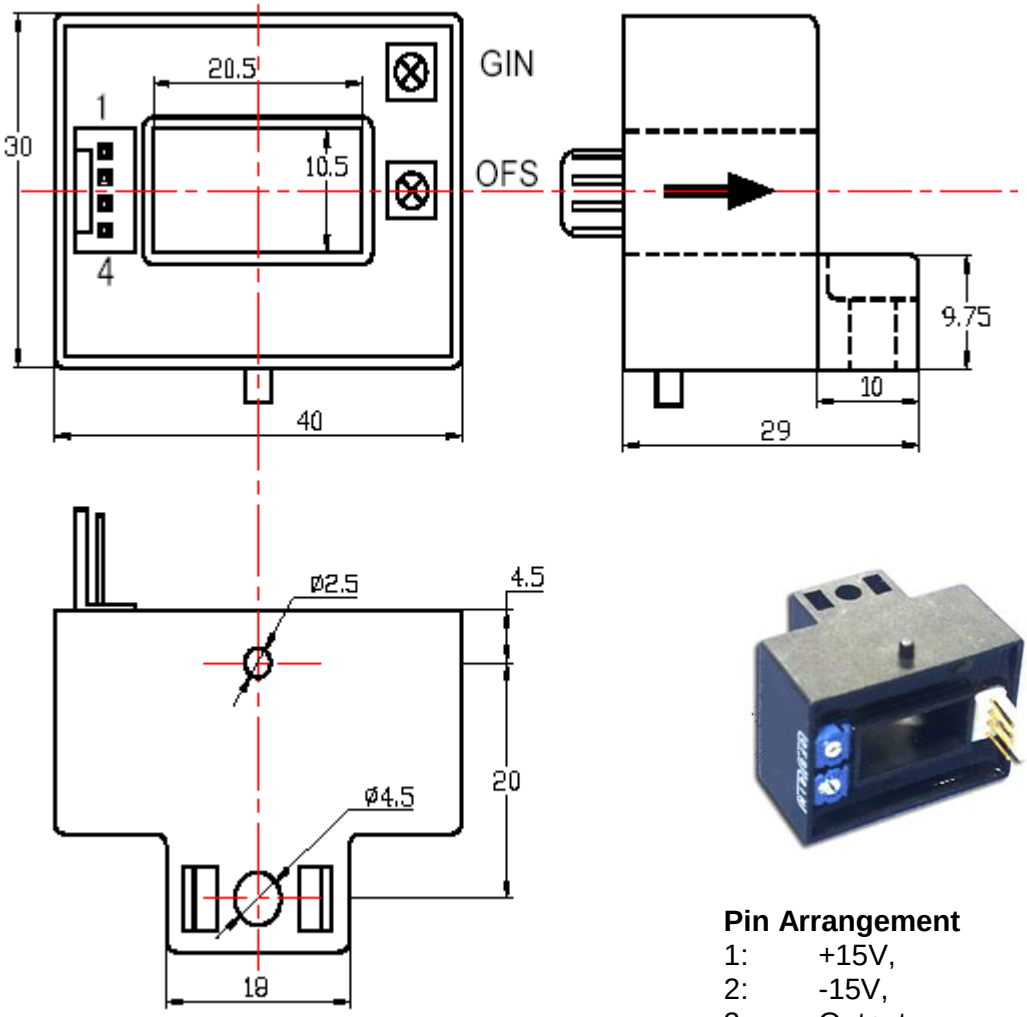
General Data

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

PIN Definition and Dimensions

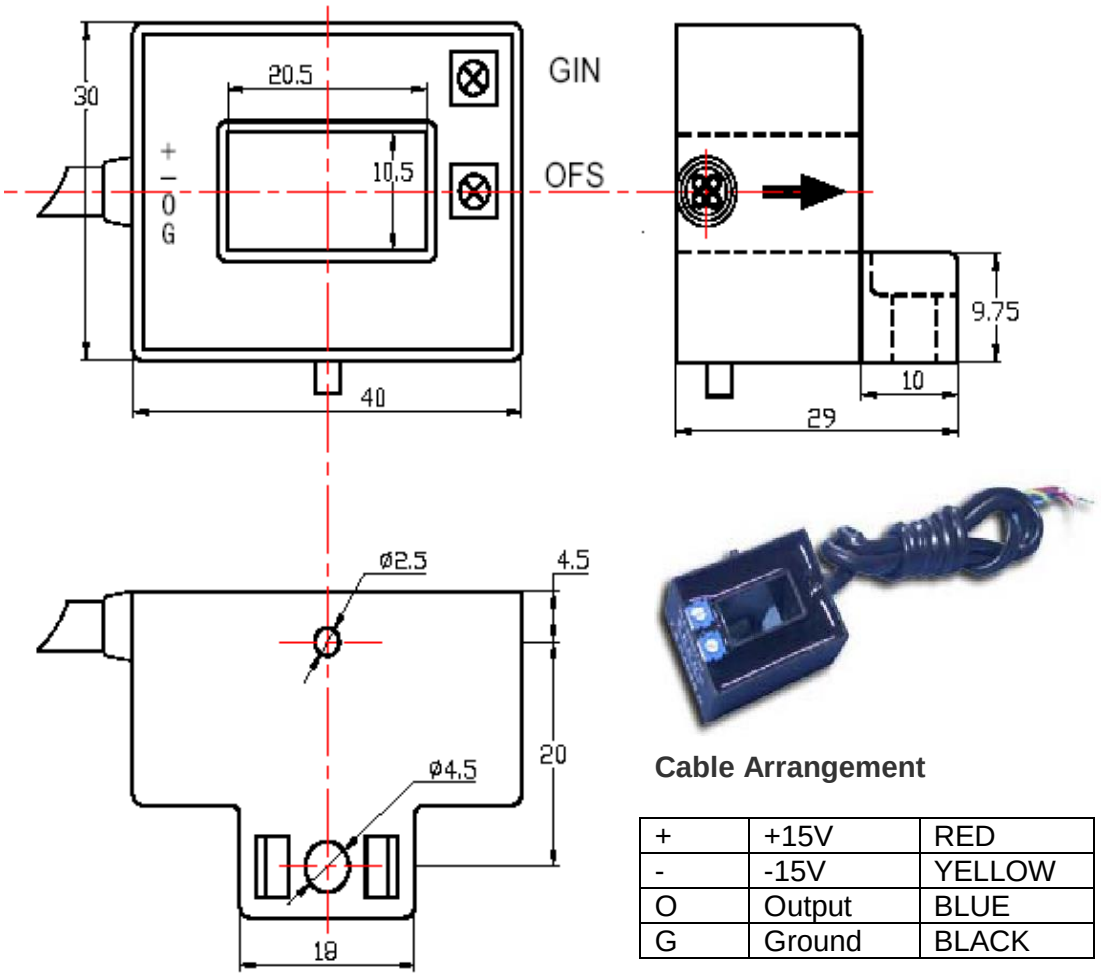
With Molex Connector (part number CYHCS-K3-xxxx)



Pin Arrangement

1: +15V,
2: -15V,
3: Output,
4: Ground

With cable connection (part number CYHCS-BR-xxxx)



Cable Arrangement

+	+15V	RED
-	-15V	YELLOW
O	Output	BLUE
G	Ground	BLACK

Cable type: RVV 4*9/0.15, diameter Φ4.1mm. It consists of 4 leads.
Each lead has 9 wires with diameter 0.15mm

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 AC/DC Current Sensor CYHCS-BS5

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 and AC current, 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 (analog)	Window sizes (mm)	Part number
50	± 100	+2.5VDC ±1V +1.0%	20.5x10.5	CYHCS-BS5-050A
100	± 200			CYHCS-BS5-100A
200	± 400			CYHCS-BS5-200A
300	± 600			CYHCS-BS5-300A
400	±800			CYHCS-BS5-400A
500	±900			CYHCS-BS5-500A
600	±900			CYHCS-BS5-600A

Supply Voltage	V_{cc}= +5V ± 5%,
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	2.5kV
Isolation resistance @ 500 VDC	> 500 MΩ

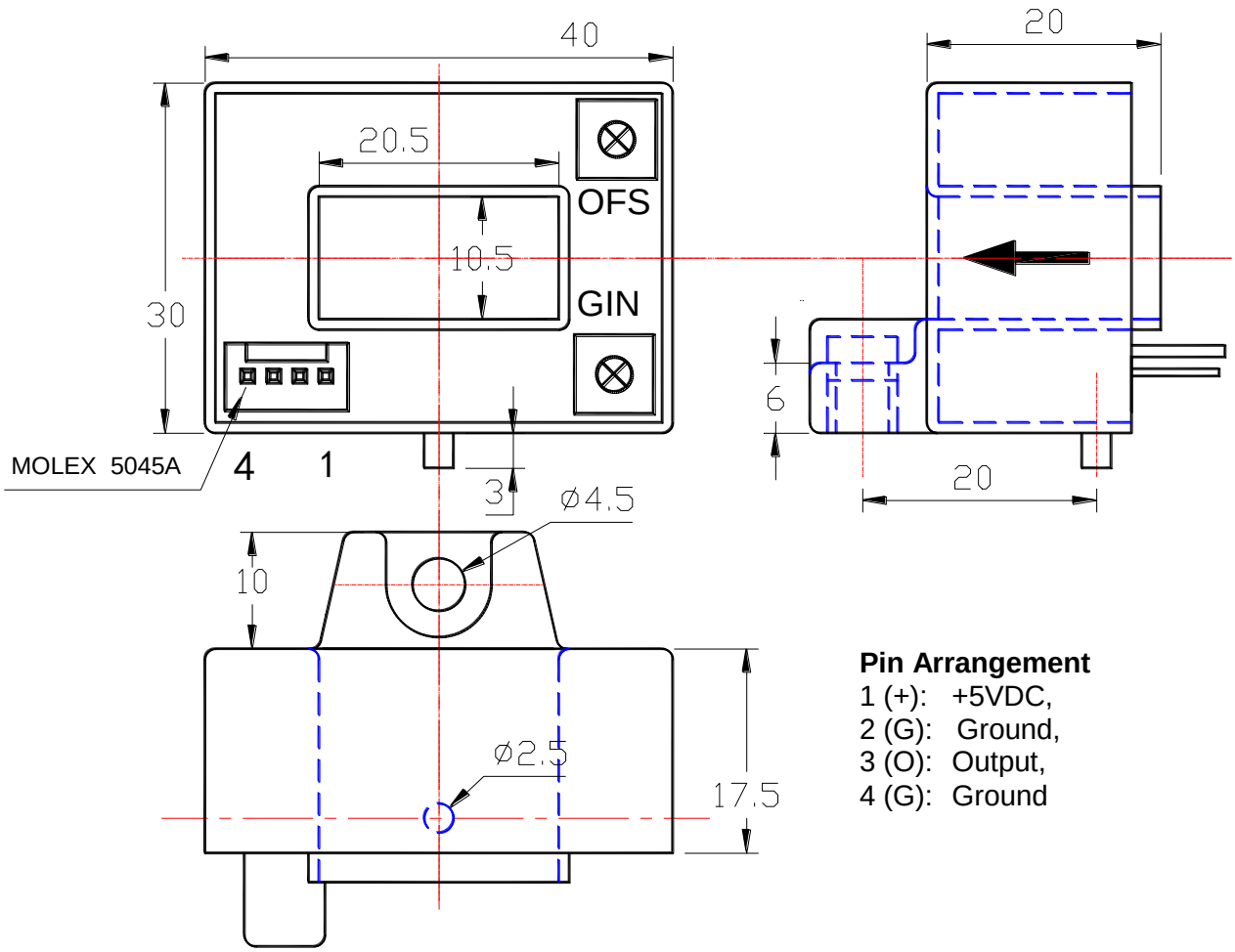
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (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}=+2.5VDC±0.5%
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±15mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Frequency bandwidth (- 3 dB):	DC-50kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 3µs

General Data

Ambient Operating Temperature,	T_A = -40°C ~ +85°C
Ambient Storage Temperature,	T_S = -40°C ~ +125°C

PIN Definition and Dimensions

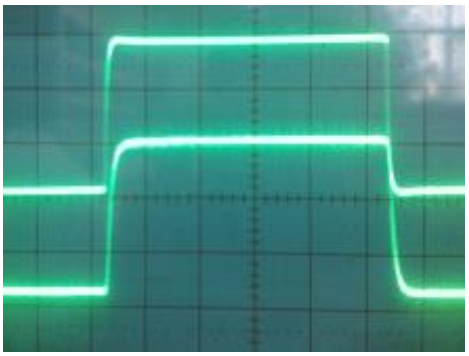


Pin Arrangement
1 (+): +5VDC,
2 (G): Ground,
3 (O): Output,
4 (G): Ground

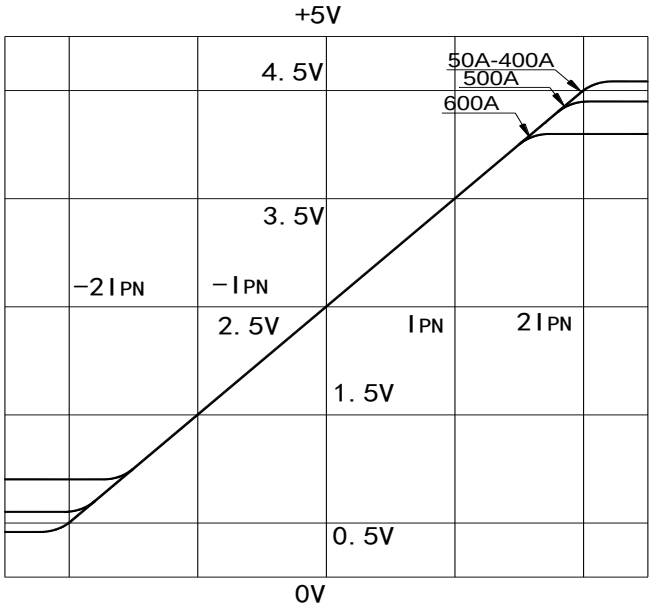
Notes:

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

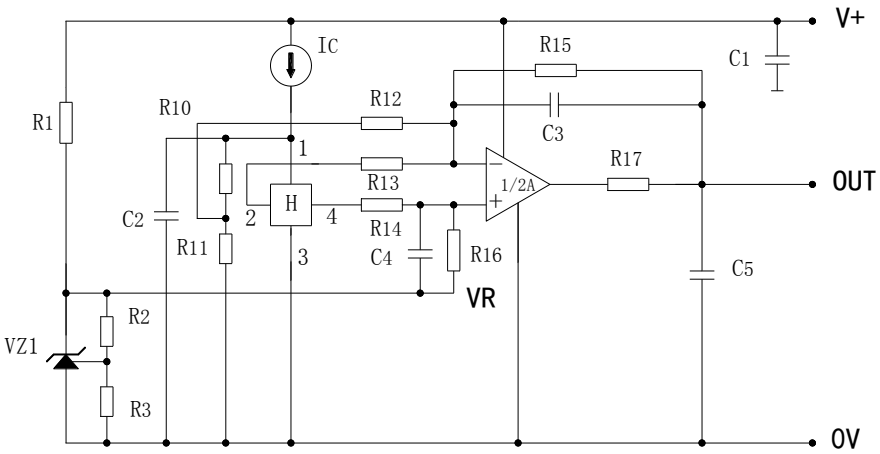
Response Characteristic of Pulse Current



Input Current and Output Voltage characteristic



Sensor Circuit



Hall Effect AC/DC Current Sensor CYHCS-BSR565

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 and AC current, 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 (analog)	Window Sizes (mm)	Part number
50	± 150	+2.5VDC ±0.625V +1.0%	20.5x10.5	CYHCS-BSR565-050A
100	± 300			CYHCS-BSR565-100A
200	± 600			CYHCS-BSR565-200A
300	± 900			CYHCS-BSR565-300A
400	±1000			CYHCS-BSR565-400A
500	±1000			CYHCS-BSR565-500A
600	±1000			CYHCS-BSR565-600A

Supply Voltage	V_{cc}= +5V ± 5%,
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	2.5kV
Isolation resistance @ 500 VDC	> 500 MΩ

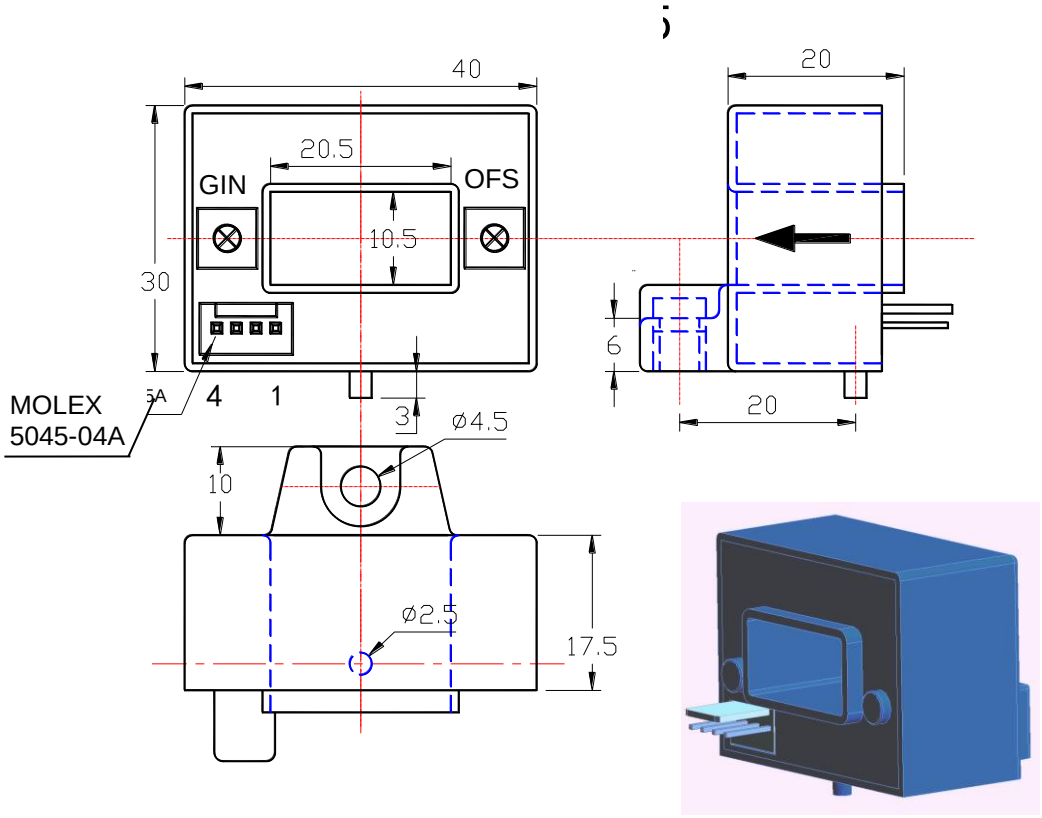
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (without offset),	<1.0% FS
Linearity from 0 to I_r, T_A=25°C,	<1.0% FS
Zero Output Voltage, T_A=25°C,	+2.5VDC±0.5%FS
Reference output voltage:	VR=+2.5VDC±0.5%FS
Electric Offset Voltage	<±10mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	<±10mV
Thermal Drift of Offset Voltage,	<±0.2mV/°C
Thermal Drift of Rated Output Voltage	<±0.4mV/°C
Frequency bandwidth (- 3 dB):	DC-50kHz
Response Time at 90% of I_P (f=1k Hz)	< 3µs

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: +5VDC; 2: Ground; 3: Output; 4: VR (+2.5V)

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

A Hall Effect C/DC Current Sensor CYHCS-BT

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 and AC current, 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 (analog)	Aperture Sizes (mm)	Part number
50	± 100	+5VDC ±2V +1.0%	20.5x10.5	CYHCS-BT-050A-X
100	± 200			CYHCS-BT-100A-X
200	± 400			CYHCS-BT-200A-X
300	± 600			CYHCS-BT-300A-X
400	±800			CYHCS-BT-400A-X
500	±900			CYHCS-BT-500A-X
600	±900			CYHCS-BT-600A-X

Supply Voltage: X=3, *Vcc*= +12VDC 5%, ; X=4, *Vcc* =+15VDC 5%; X=5, *Vcc* =+24VDC 5%,

Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	2.5kV
Isolation resistance @ 500 VDC	> 500 MΩ

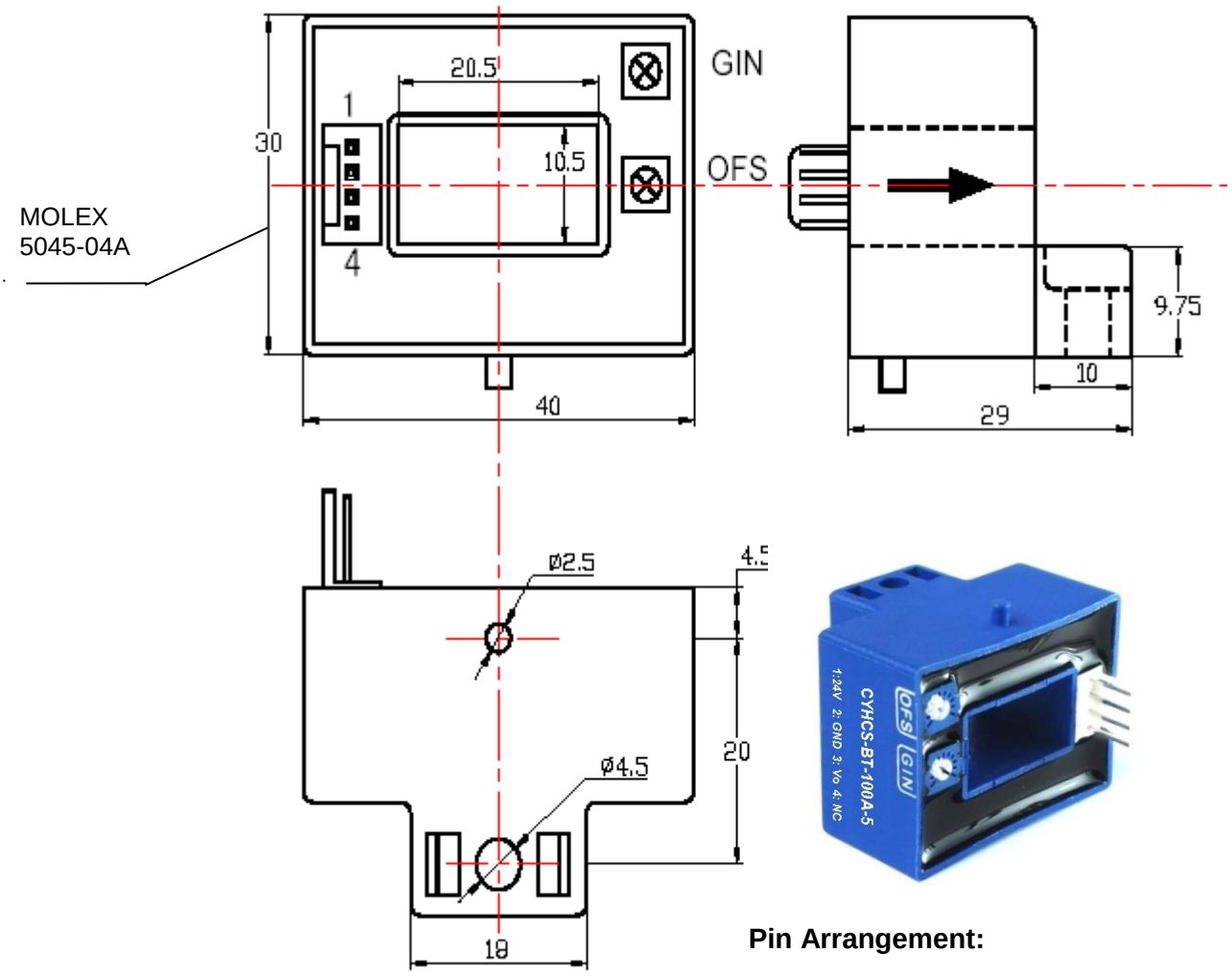
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (without offset),	<1.0% FS
Linearity from 0 to I_r, T_A=25°C,	<0.5% FS
Zero Output Voltage, T_A=25°C,	+5VDC±0.5%FS
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)	< 7µs

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-55°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 AC/DC Current Sensor CYHCS-N

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 and AC current, 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 (analog) (V)	Window sizes (mm)	Part number
100	± 300	4 +1.0%	22 x16	CYHCS-N-100A
200	± 600			CYHCS-N-200A
300	± 900			CYHCS-N-300A
400	±1000			CYHCS-N-400A
500	±1000			CYHCS-N-500A
600	±1000			CYHCS-N-600A

Supply Voltage	V_{cc}= ±15V ± 5%,
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	2.5kV
Isolation resistance @ 500 VDC	> 500 MΩ

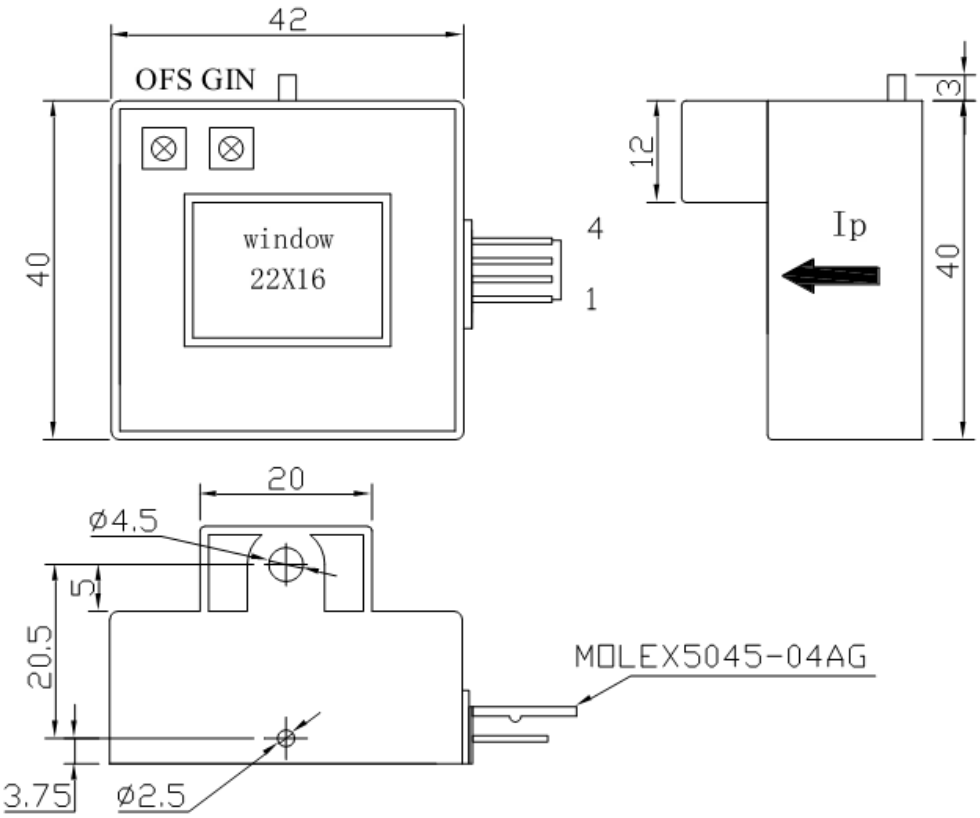
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (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} <±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±0.5mV/°C
Frequency bandwidth (- 3 dB):	DC-50kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 3µs

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: +15V,
2: -15V,
3: Output,
4: 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 AC/DC Current Sensor CYHCS-BF

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 and AC current, 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 • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electrolyzing and electroplating equipment • Electric powered locomotive • Microcomputer monitoring

Electrical Data

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog) (V)	Window Size (mm)	Part number
100	±200	±4 +1.0%	40.5x20.5	CYHCS-BF100A
200	±400			CYHCS-BF200A
400	±800			CYHCS-BF400A
500	±1000			CYHCS-BF500A
600	±1200			CYHCS-BF600A
800	±1600			CYHCS-BF800A
1000	±2000			CYHCS-BF1000A

Supply Voltage	V_{cc}= ±12~±15V ± 5%
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	2.5kV rms
Load resistance:	≥10kΩ
Isolation resistance @ 500 VDC	> 500 MΩ

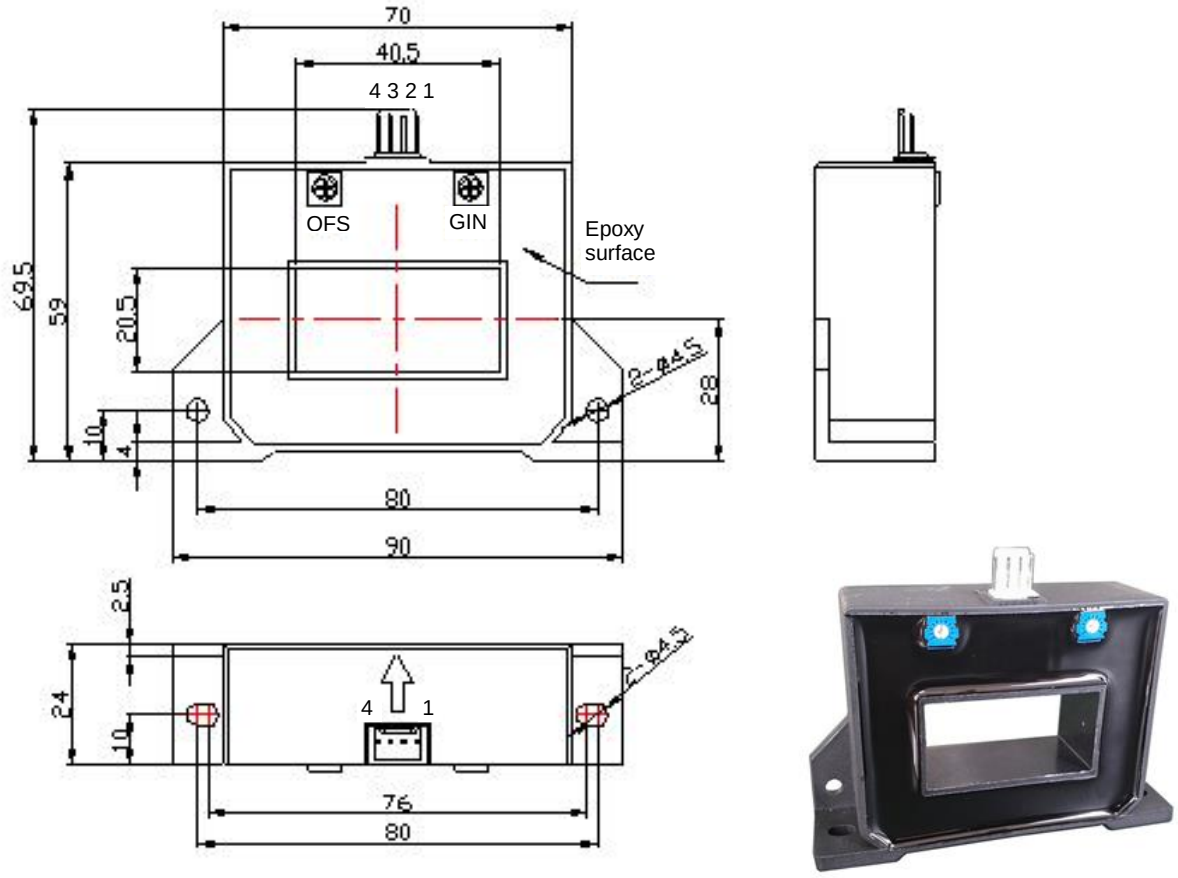
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (without offset),	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} <±25mV
Magnetic Offset Voltage ($I_r \rightarrow 0$)	V_{om} <±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 7µs

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S = -40°C ~ +100°C
Unit weight:	230g/unit
Standard used:	Q/320115QHKJ01-2013

Dimensions



Pin Arrangement

1: +Vcc; 2: -Vcc; 3: Output; 4: Ground
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

Hall Effect AC/DC Current Sensor CYHCS-CF

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 and AC current, 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 • Electrolyzing and electroplating equipment • Electric powered locomotive • Electric power network monitoring

Electrical Data

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog) (V)	Window Size (mm)	Part number
200	±400	±4 +1.0%	42 x 37	CYHCS-CF200A
400	±800			CYHCS-CF400A
500	±1000			CYHCS-CF500A
600	±1200			CYHCS-CF600A
800	±1600			CYHCS-CF800A
1000	±2000			CYHCS-CF1000A
1500	±2500			CYHCS-CF1500A

Supply Voltage	V_{cc}= ±12~±15V ± 5%
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	5kV rms
Load resistance:	10kΩ
Isolation resistance @ 500 VDC	> 500 MΩ

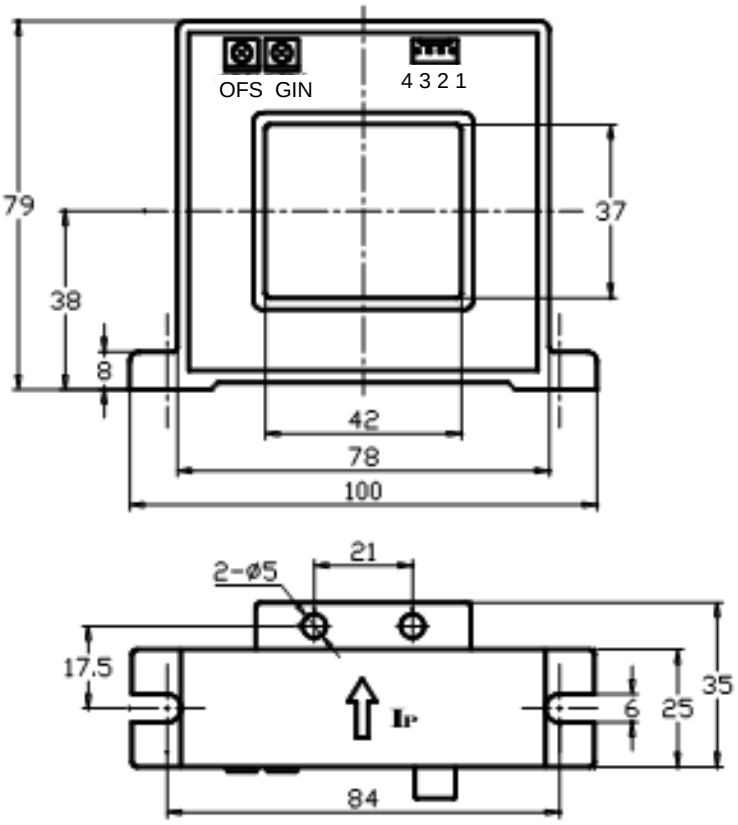
Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (without offset),	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} <±25mV
Magnetic Offset Voltage (I_r →0)	V_{om} <±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 7µs

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S = -40°C ~ +100°C
Unit weight:	350g/unit
Standard used:	Q/320115QHKJ01-2013

Dimensions



Pin Arrangement

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

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

Hall Effect AC/DC Current Sensor CYHCS-F

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 and AC current, 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 • 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

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog)(V)	Window size (mm)	Part number
200	±400	±4 +1.0%	41x14	CYHCS-F200A
400	±800			CYHCS-F400A
500	±1000			CYHCS-F500A
600	±1200			CYHCS-F600A
800	±1600			CYHCS-F800A
1000	±2000			CYHCS-F1000A
2000	±3000			CYHCS-F2000A

Supply Voltage	V_{cc}= ±12~±15V ± 5%
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Load resistance:	10kΩ
Isolation resistance @ 500 VDC	> 500 MΩ

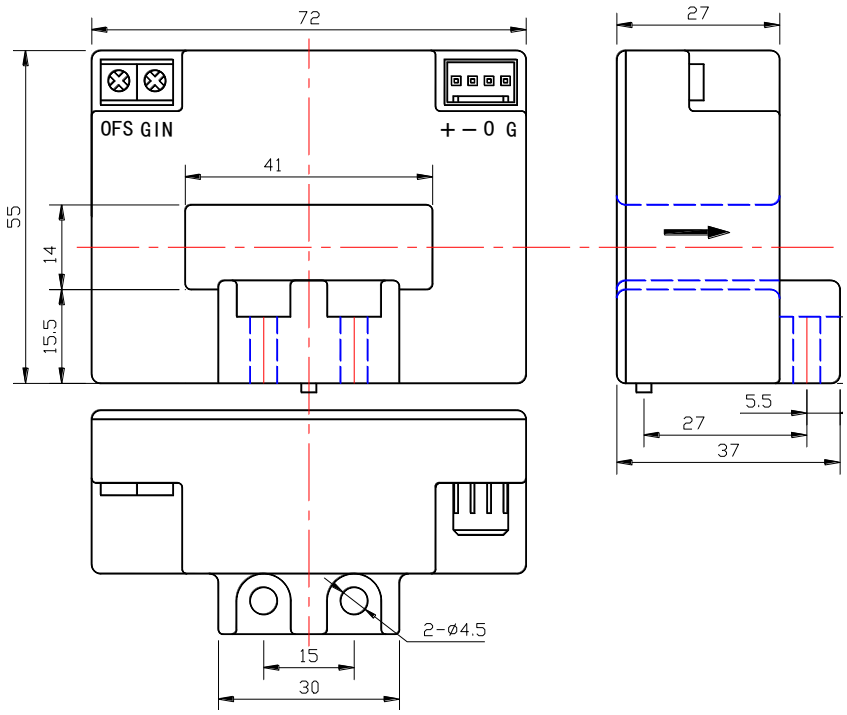
Accuracy and Dynamic performance data

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 <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <±25mV
Magnetic Offset Voltage (I_r →0)	V_{om} <±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 7µs

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

+: +15V
-: -15V
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 primary current is the same as the direction of arrow marked on the transducer

Hall Effect AC/DC Current Sensor CYHCS-FA

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 and AC current, 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 • 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

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Ananlog) (V)	Window Size (mm)	Part number
400	±800	±4 +1.0%	51x13	CYHCS-FA400A
500	±1000			CYHCS-FA500A
600	±1200			CYHCS-FA600A
800	±1600			CYHCS-FA800A
1000	±2000			CYHCS-FA1000A
1500	±2500			CYHCS-FA1500A
2000	±2500			CYHCS-FA2000A

Supply Voltage	V_{cc}= ±12~±15V ± 5%
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	3kV rms
Load resistance:	10kΩ
Isolation resistance @ 500 VDC	> 500 MΩ

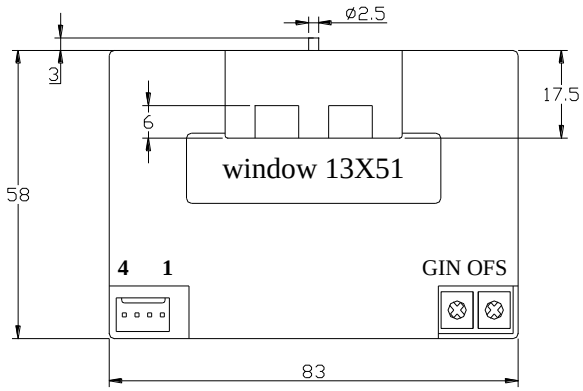
Accuracy and Dynamic performance data

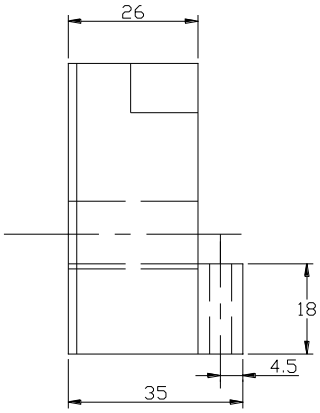
Accuracy at I_r, T_A=25°C (without offset),	X <±1.0%
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <±25mV
Magnetic Offset Voltage (I_r →0)	V_{om} <±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 7µs

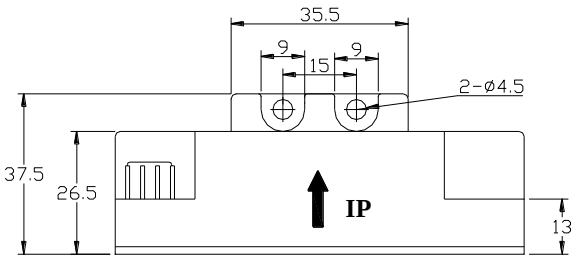
General Data

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: +15V
2: -15V
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 AC/DC Current Sensor CYHCS-K

This Spilt Core 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 and AC current, 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 • 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

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog) Vo	Window Size (mm)	Part number
300	± 600	4V±1.0%	64 x 16	CYHCS-K300A
500	± 1000			CYHCS-K500A
600	± 1200			CYHCS-K600A
800	± 1600			CYHCS-K800A
1000	± 2000			CYHCS-K1000A
1500	± 3000			CYHCS-K1500A
2000	± 3000			CYHCS-K2000A

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

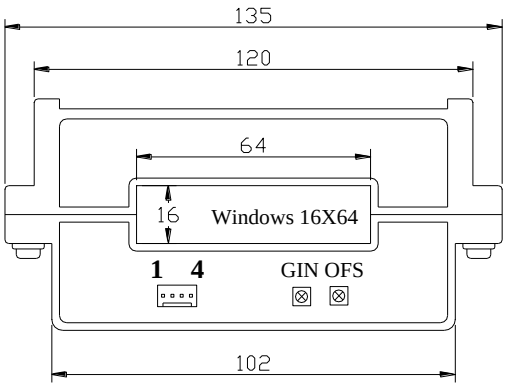
Accuracy and Dynamic performance data

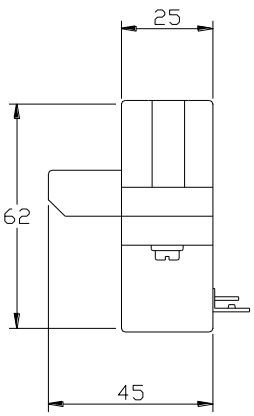
Accuracy at I_r, T_A=25°C (without offset),	X <±1.0%
Linearity from 0 to I_r, T_A=25°C,	E_L <±0.5% FS
Electric Offset Voltage, T_A=25°C,	±25mV
Magnetic Offset Voltage,	±30mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P (f=1k Hz)	t_r ≤ 7μs
Load resistance:	≥10kΩ

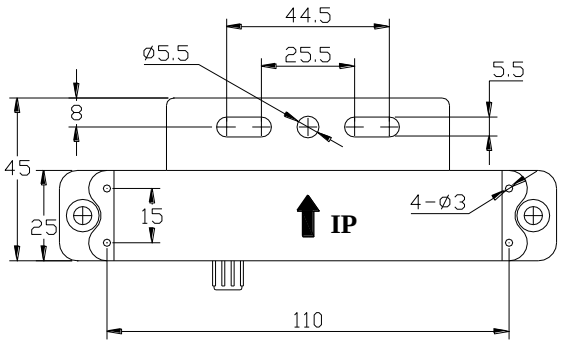
General Data

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

Dimensions







Pin Arrangement

1:	+15V
2:	-15V
3:	Output
4:	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 AC/DC Current Sensor CYHCS-KF2

This Spilt Core 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 and AC current, 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 • With Split Core, easy installation • 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

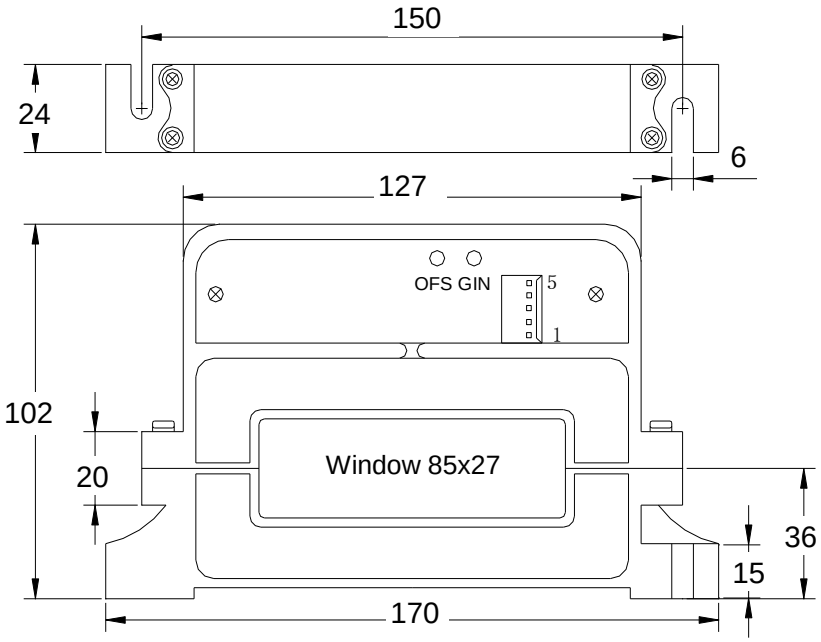
Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog) Vo	Window size (mm)	Part number
500	± 1000	±4V±1.0%	85 x 27	CYHCS-KF2-500A
600	± 1200			CYHCS-KF2-600A
800	± 1600			CYHCS-KF2-800A
1000	± 2000			CYHCS-KF2-1000A
1500	± 3000			CYHCS-KF2-1500A
2000	± 3000			CYHCS-KF2-2000A
3000	± 4000			CYHCS-KF2-3000A

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

Accuracy and Dynamic performance data

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 <±0.5% FS
Electric Offset Voltage, T_A=25°C,	±25mV
Magnetic Offset Voltage,	±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal drift (-10°C~+50°C)	T.C. < ±0.1% /°C
Frequency bandwidth (- 3 dB):	DC-10kHz
Response Time at 90% of I_P	t_r ≤ 7µs
Load resistance:	10kΩ
Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +100°C

Dimensions (for reference only)



Pin Arrangement

1:	+15V
2:	GND (0V)
3:	-15V
4:	NC
5:	Vout

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 AC/DC Current Sensor CYHCS-KAB

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 and AC current, 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 • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electrolyzing and electroplating equipment • Electric powered locomotive • Electric power network monitoring

Electrical Data

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog) (V)	Window Size (mm)	Part number
500	±1000	±4 +1.0%	102 x 38	CYHCS-KAB500A
700	±1400			CYHCS-KAB700A
800	±1600			CYHCS-KAB800A
900	±1800			CYHCS-KAB900A
1000	±2000			CYHCS-KAB1000A
1500	±3000			CYHCS-KAB1500A
2000	±4000			CYHCS-KAB2000A
3000	±4000			CYHCS-KAB3000A

Supply Voltage	Vcc= ±12~±15V ± 5%
Current Consumption	I_c < 30mA
Galvanic isolation, 50/60Hz, 1min:	5kV rms
Load resistance:	≥10kΩ
Isolation resistance @ 500 VDC	> 500 MΩ

Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (without offset),	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} <±30mV
Magnetic Offset Voltage (I_r →0)	V_{om} <±25mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Thermal Drift (-10°C to 50°C),	T.C. < ±0.1% /°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P (f=1k Hz)	t_r < 7µs

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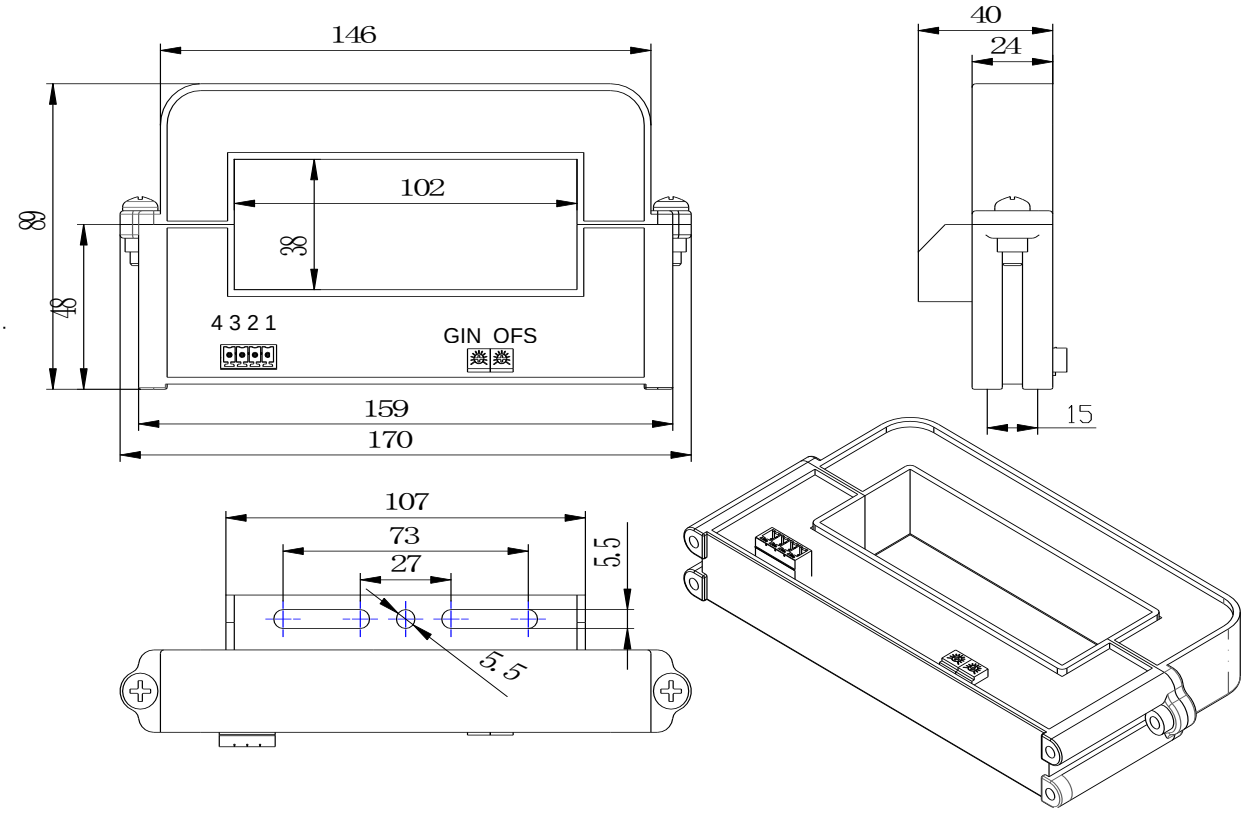
Internet: www.chenyang.de

General Data

Ambient Operating Temperature,	T_A = -25°C ~ +85°C
Ambient Storage Temperature,	T_S = -40°C ~ +100°C
Unit weight:	750g/unit
Standard used:	Q/320115QHKJ01-2013

Dimensions



OFS: Offset adjustment GIN: Gain adjustment

Pin Arrangement

Phoenix Connector:

1: +Vcc; 2: -Vcc; 3: Output; 4: Ground

Cable connection:

Red: +Vcc; blue: -Vcc yellow: Vout; black: 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 AC/DC Current Sensor CYHCS-K104

This Spilt Core 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 and AC current, 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 • With Split Core, easy installation • 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 RMS Current I_r (A)	Measuring Range (A)	Output voltage (Analog) (V)	Window size (mm)	Part number
500	± 1000	4V±1.0%	104 x 36	CYHCS-K104-500A
1000	± 2000			CYHCS-K104-1000A
1500	± 3000			CYHCS-K104-1500A
2000	± 4000			CYHCS-K104-2000A
3000	± 6000			CYHCS-K104-3000A
5000	± 7500			CYHCS-K104-5000A

Supply Voltage	V_{cc}= ±12V~ ±15VDC
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	6kV
Isolation resistance @ 500 VDC	> 500 MΩ

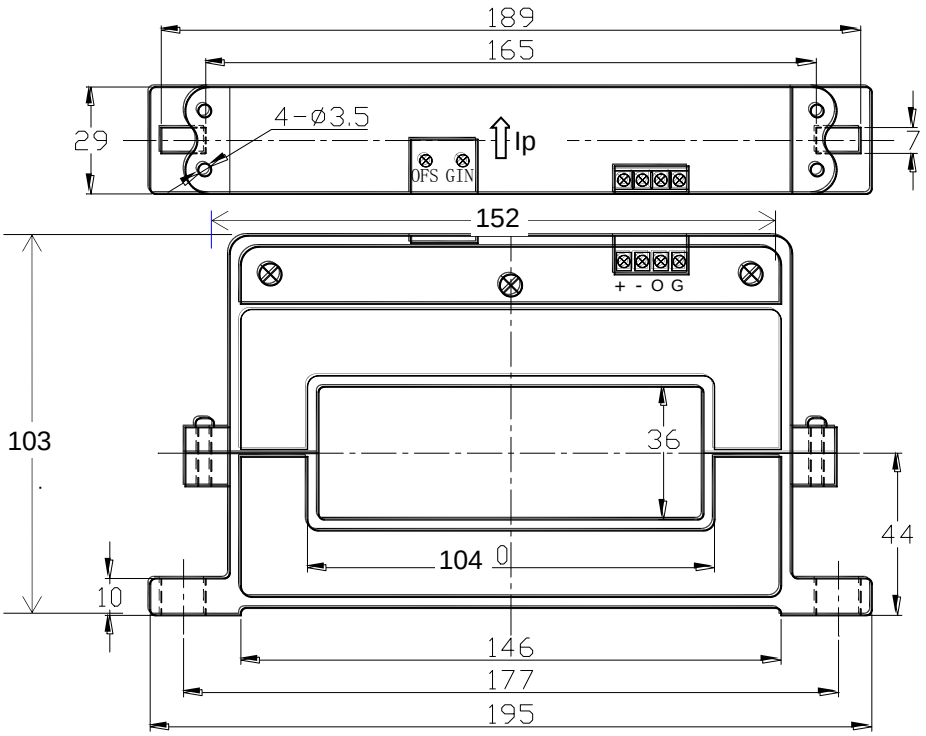
Accuracy and Dynamic performance data

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,	25mV
Magnetic Offset Voltage,	30mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P	t_r ≤ 7µs
Load resistance:	10kΩ

General Data

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

Dimensions



Pin Arrangement

1(+): +15V
2(-): -15V
3(O): Output
4(G): 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 AC/DC Current Sensor CYHCS-KCA

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 AC/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 • 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/Input

Primary Nominal Current I_r (A)	Primary Current Measuring Range I_p(A)	Output Voltage (analog) (V)	Part number
1000A	0 ~ ± 2000A	4 ±1.0%	CYHCS-KCA-1000A
2000A	0 ~ ± 4000A		CYHCS-KCA-2000A
3000A	0 ~ ± 6000A		CYHCS-KCA-3000A
4000A	0 ~ ± 8000A		CYHCS-KCA-4000A
5000A	0 ~ ± 10000A		CYHCS-KCA-5000A
6000A	0 ~ ± 12000A		CYHCS-KCA-6000A
8000A	0 ~ ± 12000A		CYHCS-KCA-8000A
10000A	0 ~ ± 12000A		CYHCS-KCA-10000A

Supply Voltage:	V_{cc}=±15VDC ± 5%
Current Consumption	I_c < 35mA
Isolation Voltage	6kV, 50/60Hz, 1min

Electrical Data/Output

Output Voltage at I_r, T_A=25°C:	V_{out} =4VDC
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 →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 < 10μs
Frequency Bandwidth (-3dB),	f_b = DC-3 kHz

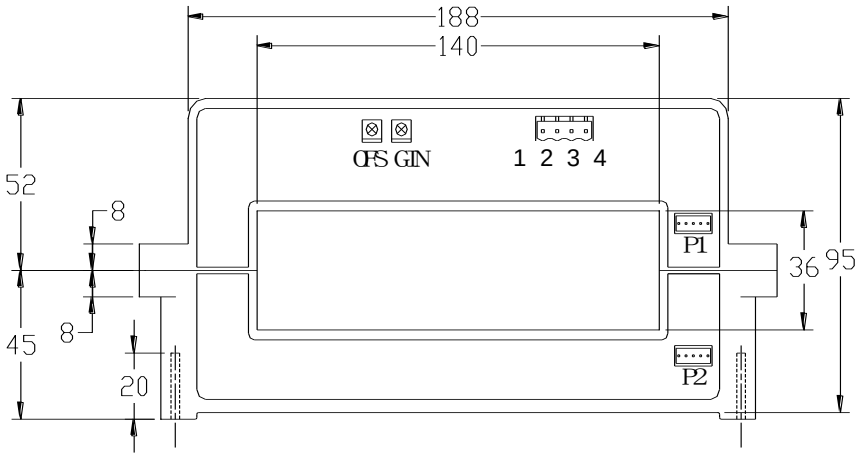
General Data

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



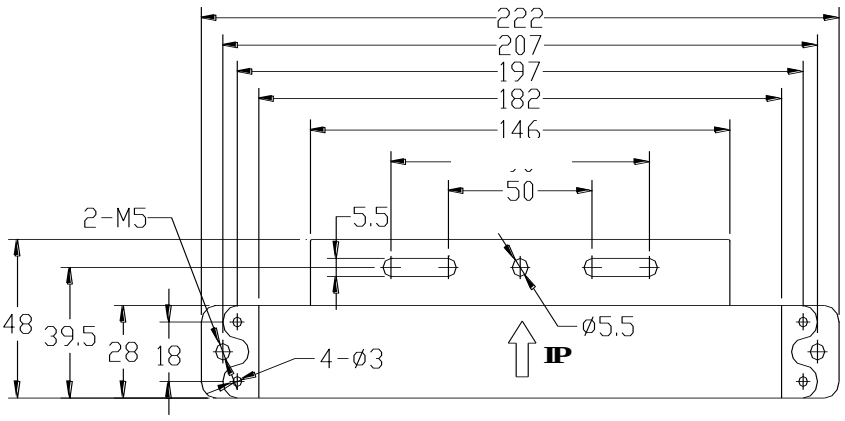
Pin arrangement:

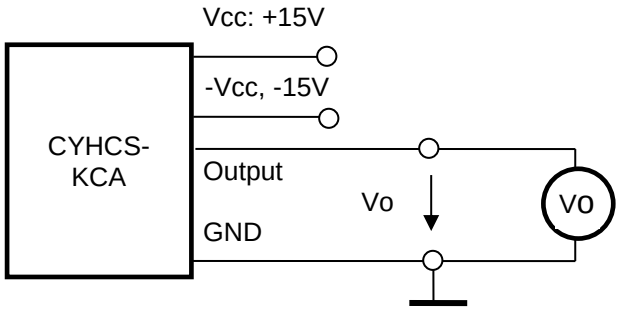
1(V+): Vcc

2(V-): -Vcc

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 AC/DC Current Sensor CYHCS-HB

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, AC current, 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 installation • 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 RMS Current I_r (A)	Measuring Range (A)	Output current (Analog) Vo	Aperture Diameter (mm)	Part number
2000	± 4000	4V±1.0%	140 x 50	CYHCS-HB2000A
3000	± 5000			CYHCS-HB3000A
4000	± 6000			CYHCS-HB4000A
5000	± 7500			CYHCS-HB5000A
8000	± 10000			CYHCS-HB8000A
10000	± 12000			CYHCS-HB10000A

Supply Voltage	V_{cc}= ±12 or ±15VDC ± 5%
Current Consumption	I_c < 25mA
Galvanic isolation, 50/60Hz, 1min:	6kV
Isolation resistance @ 500 VDC	> 500 MΩ

Accuracy and Dynamic performance data

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,	25mV
Magnetic Offset Voltage,	30mV
Thermal Drift of Offset Voltage,	V_{ot} <±1.0mV/°C
Frequency bandwidth (- 3 dB):	DC-20kHz
Response Time at 90% of I_P	t_r ≤ 7µs
Load resistance:	10kΩ

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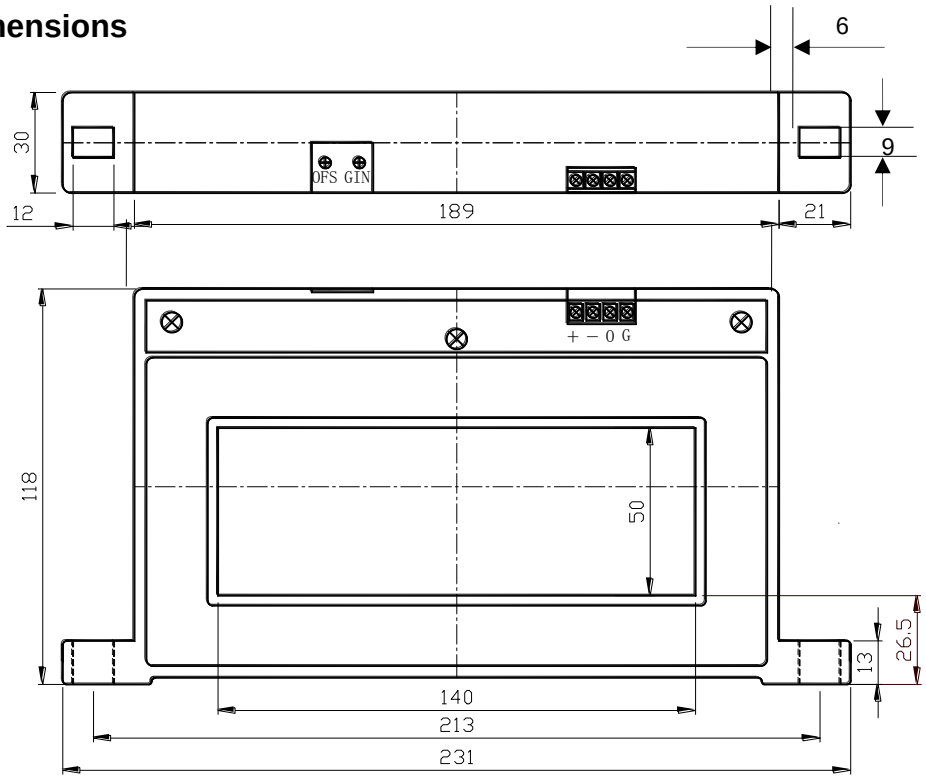
Internet: www.chenyang.de

General Data

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

Dimensions



Pin Arrangement

+:	+15V
-:	-15V
O:	Output
G:	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 AC/DC Current Sensor CYHCS-K210

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 AC/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 • 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

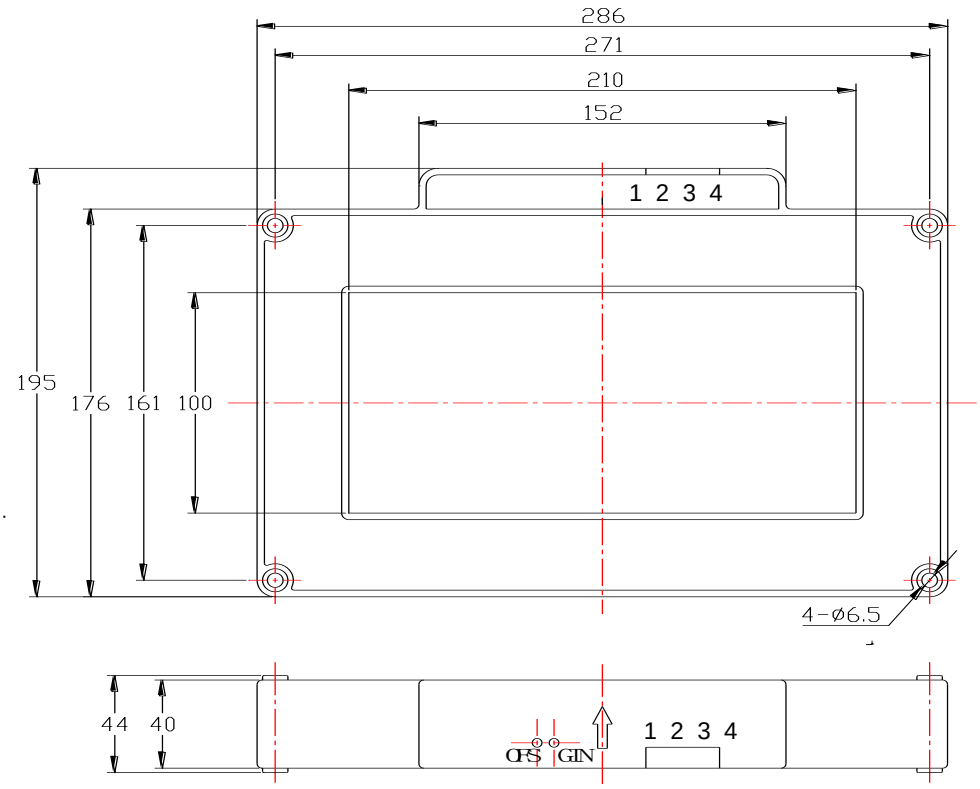
Primary Nominal Current I_r (A)	Primary Current Measuring Range I_p(A)	Output Voltage (Analog)(V)	Part number
3000A	0 ~ ± 3600A	4 ±1.0%	CYHCS-K210-3000A
4000A	0 ~ ± 4800A		CYHCS-K210-4000A
5000A	0 ~ ± 6000A		CYHCS-K210-5000A
6000A	0 ~ ± 7200A		CYHCS-K210-6000A
8000A	0 ~ ± 9600A		CYHCS-K210-8000A
10000A	0 ~ ± 12000A		CYHCS-K210-10000A
15000A	0 ~ ± 18000A		CYHCS-K210-15000A
20000A	0 ~ ± 22000A		CYHCS-K210-20000A

Supply Voltage:	V_{cc}=±12V~±15VDC ± 5%
Current Consumption	I_c < 50mA
Isolation Voltage	6kV, 50/60Hz, 1min
Output Voltage at I_r, T_A=25°C:	V_{out} =4VDC
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 →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 < 10μs
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



Pin arrangement:

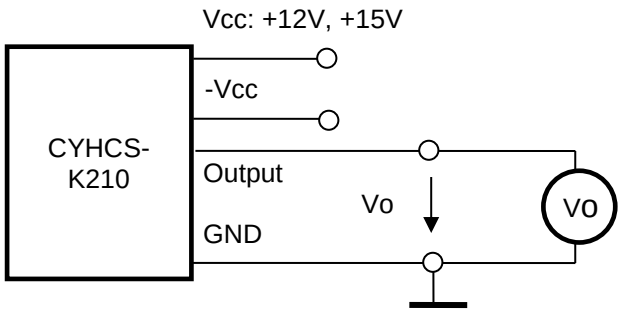
1(V+): Vcc

2(V-): -Vcc

3(OUT): OUTPUT

4(GND): 0V (GND)

OFS: Offset Adjustment GIN: Gain Adjustment



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