Catalogue
Open Loop Hall Effect AC Current Sensors/
Transducers with Round Window

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Hall Effect AC Current Sensor CYHCS-C1TV

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 AC current, pulse currents etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

**Product Characteristics**

- 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

**Applications**

- 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**

<table>
<thead>
<tr>
<th>Primary Nominal RMS Current I_r (A)</th>
<th>Measuring Range (A)</th>
<th>DC Output Voltage V (V)</th>
<th>Aperture Diameter (mm)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0-25</td>
<td>x=0: 0-4V ±1.0%</td>
<td>Ø20</td>
<td>CYHCS-C1TV-25A-xnC</td>
</tr>
<tr>
<td>30</td>
<td>0-30</td>
<td>x=3: 0-5V ±1.0%</td>
<td></td>
<td>CYHCS-C1TV-30A-xnC</td>
</tr>
<tr>
<td>40</td>
<td>0-40</td>
<td>x=8: 0-10V ±1.0%</td>
<td></td>
<td>CYHCS-C1TV-40A-xnC</td>
</tr>
<tr>
<td>50</td>
<td>0-50</td>
<td></td>
<td></td>
<td>CYHCS-C1TV-50A-xnC</td>
</tr>
<tr>
<td>100</td>
<td>0-100</td>
<td></td>
<td></td>
<td>CYHCS-C1TV-100A-xnC</td>
</tr>
<tr>
<td>200</td>
<td>0-200</td>
<td></td>
<td></td>
<td>CYHCS-C1TV-200A-xnC</td>
</tr>
<tr>
<td>300</td>
<td>0-300</td>
<td></td>
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<td>CYHCS-C1TV-300A-xnC</td>
</tr>
<tr>
<td>400</td>
<td>0-400</td>
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<td></td>
<td>CYHCS-C1TV-400A-xnC</td>
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<tr>
<td>500</td>
<td>0-500</td>
<td></td>
<td></td>
<td>CYHCS-C1TV-500A-xnC</td>
</tr>
<tr>
<td>600</td>
<td>0-600</td>
<td></td>
<td></td>
<td>CYHCS-C1TV-600A-xnC</td>
</tr>
</tbody>
</table>

(n=2, Vcc=+12VDC ±5%; n=3, Vcc=+15VDC ±5%; n=4, Vcc=+24VDC±5%)

(Connector: Molex connector C=M; Phoenix Connector: C=P)

Supply Voltage: $V_{cc}=+12V, +15V, +24V±5$

Current Consumption: $I_c < 25mA$

Isolation Voltage: 2.5kV, 50/60Hz, 1min

Output Impedance: $R_{out} < 150\Omega$

Load Resistor: $R_L > 10k\Omega$

Accuracy at $I_r$, $T_A=25°C$, $X<1.0%$ FS

Linearity from 0 to $I_r$, $T_A=25°C$, $E_L <1.0%$ FS

Electric Offset Voltage, $T_A=25°C$, $V_{ce} <50mV$

Magnetic Offset Voltage ($I_r→0$), $V_{om} <±20mV$

Thermal Drift of Offset Voltage, $T.C. < ±0.1% /°C$

Thermal Drift (-10°C to 50°C), $t< 200ms$

Response Time at 90% of $I_P$ (f=1kHz), $T.P = 20Hz - 20 kHz$

Frequency Bandwidth (-3dB), $PBT$, heat resistant 100°C flame retardant
General Data

Ambient Operating Temperature, \( T_A = -25^\circ C \sim +85^\circ C \)
Ambient Storage Temperature, \( T_S = -55^\circ C \sim +100^\circ C \)

PIN Definition and Dimensions

OFS: Offset Adjustment
GIN: Gain Adjustment

Connection

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 Current Sensor CYHCS-C1TC

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

### Product Characteristics

- 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

### Applications

- 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

<table>
<thead>
<tr>
<th>Primary Nominal RMS Current $I_r$ (A)</th>
<th>Measuring Range (A)</th>
<th>DC Output Current (mA)</th>
<th>Aperture Diameter (mm)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0–25</td>
<td>4–20 ±1.0%</td>
<td>Ø20</td>
<td>CYHCS-C1TC-25A-nC</td>
</tr>
<tr>
<td>30</td>
<td>0–30</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-30A-nC</td>
</tr>
<tr>
<td>40</td>
<td>0–40</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-40A-nC</td>
</tr>
<tr>
<td>50</td>
<td>0–50</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-50A-nC</td>
</tr>
<tr>
<td>100</td>
<td>0–100</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-100A-nC</td>
</tr>
<tr>
<td>200</td>
<td>0–200</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-200A-nC</td>
</tr>
<tr>
<td>300</td>
<td>0–300</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-300A-nC</td>
</tr>
<tr>
<td>400</td>
<td>0–400</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-400A-nC</td>
</tr>
<tr>
<td>500</td>
<td>0–500</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-500A-nC</td>
</tr>
<tr>
<td>600</td>
<td>0–600</td>
<td></td>
<td></td>
<td>CYHCS-C1TC-600A-nC</td>
</tr>
</tbody>
</table>

(n=3, $V_{cc}=+12$VDC ±5%; n=4, $V_{cc}=+15$VDC ±5%; n=5, $V_{cc}=+24$VDC±5%)

(Connector: Molex connector C=M; Phoenix Connector: C=P)

Supply Voltage $V_{cc}=+12V$, +15V, +24V± 5%
Current Consumption $I_c < 25mA + Output current$
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 $I_r$, $T_A=25°C$, $E_L<1.0\%$ FS
- Electric Offset Current, $T_A=25°C$, $4mA DC$
- Thermal Drift of Offset Current, $<±0.005mA/^°C$
- Response Time at 90% of $I_P$, $t< 200ms$
- Load resistance: 80–450Ω
Frequency bandwidth (-3 dB): 20Hz - 20kHz
Case Material: PBT, heat resistant 100°C flame retardant

General Data
Ambient Operating Temperature, \( T_a = -25°C \sim +85°C \)
Ambient Storage Temperature, \( T_s = -40°C \sim +100°C \)

PIN Definition and Dimensions

OFS: Offset Adjustment  GIN: Gain Adjustment

Connection

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 Current Sensor CYHCS-C2TV

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 current, pulse currents etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

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<thead>
<tr>
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<td>• Very good linearity</td>
<td>• Frequency conversion timing equipment</td>
</tr>
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<td>• Light in weight</td>
<td>• Various power supply</td>
</tr>
<tr>
<td>• Less power consumption</td>
<td>• Uninterruptible power supplies (UPS)</td>
</tr>
<tr>
<td>• Window structure</td>
<td>• Electric welding machines</td>
</tr>
<tr>
<td>• Electrically isolating the output of the transducer from the current carrying conductor</td>
<td>• Numerical controlled machine tools</td>
</tr>
<tr>
<td>• No insertion loss</td>
<td>• Electrolyzing and electroplating equipment</td>
</tr>
<tr>
<td>• Current overload capability</td>
<td>• Electric powered locomotive</td>
</tr>
<tr>
<td></td>
<td>• Microcomputer monitoring</td>
</tr>
<tr>
<td></td>
<td>• Electric power network monitoring</td>
</tr>
</tbody>
</table>

Electrical Data/Input

<table>
<thead>
<tr>
<th>Primary Nominal rms Current $I_r$ (A)</th>
<th>Primary Current Measuring Range $I_p$ (A)</th>
<th>DC Output Voltage (V)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>25A</td>
<td>0 ~ 25A</td>
<td>x=0: 0-4V ±1.0%</td>
<td>CYHCS-C2TV-25A-nxC</td>
</tr>
<tr>
<td>30A</td>
<td>0 ~ 30A</td>
<td>x=3: 0-5V ±1.0%</td>
<td>CYHCS-C2TV-30A-nxC</td>
</tr>
<tr>
<td>40A</td>
<td>0 ~ 40A</td>
<td>x=8: 0-10V ±1.0%</td>
<td>CYHCS-C2TV-40A-nxC</td>
</tr>
<tr>
<td>50A</td>
<td>0 ~ 50A</td>
<td></td>
<td>CYHCS-C2TV-50A-nxC</td>
</tr>
<tr>
<td>100A</td>
<td>0 ~ 100A</td>
<td></td>
<td>CYHCS-C2TV-100A-nxC</td>
</tr>
<tr>
<td>200A</td>
<td>0 ~ 200A</td>
<td></td>
<td>CYHCS-C2TV-200A-nxC</td>
</tr>
<tr>
<td>300A</td>
<td>0 ~ 300A</td>
<td></td>
<td>CYHCS-C2TV-300A-nxC</td>
</tr>
<tr>
<td>400A</td>
<td>0 ~ 400A</td>
<td></td>
<td>CYHCS-C2TV-400A-nxC</td>
</tr>
<tr>
<td>500A</td>
<td>0 ~ 500A</td>
<td></td>
<td>CYHCS-C2TV-500A-nxC</td>
</tr>
<tr>
<td>600A</td>
<td>0 ~ 600A</td>
<td></td>
<td>CYHCS-C2TV-600A-nxC</td>
</tr>
</tbody>
</table>

(n=2, Vcc=+12VDC; n=3, Vcc=+15VDC; n=4, Vcc=+24VDC)  
(Connector: Molex connector C=M; Phoenix Connector: C=P)

Supply Voltage: $V_{cc}=+12V$, $+15V$, $+24V±5\%$
Current Consumption: $I_c < 25mA$
Isolation Voltage: 2.5kV, 50/60Hz, 1min
Output Impedance: $R_{out} < 150\Omega$
Load Resistor: $R_l > 10k\Omega$
Accuracy at $I_r$, $T_A=25°C$, $X < 1.0\%$ FS
Linearity from 0 to $I_r$, $T_A=25°C$, $E_L < 1.0\%$ 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, $T_A=25°C$, $V_{oth} < 1.0mV/°C$
Thermal Drift (-10°C to 50°C), $T.C. < ±0.1%/°C$
Response Time at 90% of $I_p$ ($f=1k$ Hz), $t_r < 200ms$
Frequency Bandwidth (-3dB), $f_b = 20Hz - 20k$ kHz
Case Material: PBT
General Data

Ambient Operating Temperature, \( T_A = -25°C \sim +85°C \)
Ambient Storage Temperature, \( T_S = -40°C \sim +100°C \)

PIN Definition and Dimensions

![PIN Diagram]

OFS: Offset Adjustment
GIN: Gain Adjustment

Connection

![Connection Diagram]

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.

![Notes Diagram]
DIN Rail Adapter CY-DRA88

The DIN Rail Adapter CY-DRA88 is designed for mounting the sensor on 35mm DIN Rail. It has the size 70 x 24 x 23mm. The height from bottom to mounting surface is 14.8mm.
Mounting of Sensors

![Sensor with Molex Connector](image1)

(The distance between the bottom und the middle of hole is 54.8mm)

![Sensor with Phoenix Connector](image2)

(The distance between the bottom und the middle of hole is 54.8mm)
Split Core Hall Effect AC Current Sensor CYHCS-EKADA

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 current, pulse currents etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

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<tr>
<td>• No insertion loss</td>
<td>• Numerical controlled machine tools</td>
</tr>
<tr>
<td>• Current overload capability</td>
<td>• Electric powered locomotive</td>
</tr>
<tr>
<td></td>
<td>• Microcomputer monitoring</td>
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<td></td>
<td>• Electric power network monitoring</td>
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</table>

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</thead>
<tbody>
<tr>
<td>25</td>
<td>0 ~ 50</td>
<td>4-20 ±1.0%</td>
<td>Ø21</td>
<td>CYHCS-EKADA-25A-nC</td>
</tr>
<tr>
<td>30</td>
<td>0 ~ 60</td>
<td></td>
<td></td>
<td>CYHCS-EKADA-30A-nC</td>
</tr>
<tr>
<td>40</td>
<td>0 ~ 80</td>
<td></td>
<td></td>
<td>CYHCS-EKADA-40A-nC</td>
</tr>
<tr>
<td>50</td>
<td>0 ~ 100</td>
<td></td>
<td></td>
<td>CYHCS-EKADA-50A-nC</td>
</tr>
<tr>
<td>100</td>
<td>0 ~ 200</td>
<td></td>
<td></td>
<td>CYHCS-EKADA-100A-nC</td>
</tr>
<tr>
<td>200</td>
<td>0 ~ 400</td>
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<td></td>
<td>CYHCS-EKADA-200A-nC</td>
</tr>
<tr>
<td>400</td>
<td>0 ~ 800</td>
<td></td>
<td></td>
<td>CYHCS-EKADA-400A-nC</td>
</tr>
<tr>
<td>500</td>
<td>0 ~ 1000</td>
<td></td>
<td></td>
<td>CYHCS-EKADA-500A-nC</td>
</tr>
<tr>
<td>600</td>
<td>0 ~ 1000</td>
<td></td>
<td></td>
<td>CYHCS-EKADA-600A-nC</td>
</tr>
</tbody>
</table>

(n=3, $Vcc=+12VDC$ ±5%; n=4, $Vcc=+15VDC$ ±5%; n=5, $Vcc=+24VDC$±5%)

(Connector: Molex connector C=M; Phoenix Connector: C=P)

Supply Voltage $V_{cc}=+12V$, +15V, +24V ± 5%,
Current Consumption $I_c < 25mA$
Galvanic isolation, 50/60Hz, 1min: 5kV
Isolation resistance @ 500 VDC > 500 MΩ
Accuracy at $I_r$, $T_A=25°C$, $X<1.0%$ FS
Linearity from 0 to $I_r$, $T_A=25°C$, $E_L<1.0%$ FS
Electric Offset Current, $T_A=25°C$, 4mA
Thermal Drift of Offset Current, $<±0.005mA/{^°C}$
Response Time $t_c < 200ms$
Frequency bandwidth (-3 dB): 20Hz - 20kHz
Load resistance: 80-450Ω
Mean Time Between Failures (MTBF): 50k - 100k hours
General Data

Ambient Operating Temperature, \(T_A = -25^\circ C \sim +85^\circ C\)
Ambient Storage Temperature, \(T_S = -40^\circ C \sim +100^\circ C\)

PIN Definition and Dimensions

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.
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DIN Rail Adapter CY-DRA88

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Mounting of Sensors

Sensor with Molex Connector
(The distance between the bottom und the middle of hole is 54.8mm)

Sensor with Phoenix Connector
(The distance between the bottom und the middle of hole is 54.8mm)
Split Core Hall Effect AC Current Sensor CYHCS-EKAD

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 current, pulse currents etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

### Product Characteristics
- 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

### Applications
- Photovoltaic equipment
- Frequency conversion timing equipment
- Various power supply
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</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>60</td>
<td>0-5 ±1.0%</td>
<td>Ø21</td>
<td>CYHCS-EKAD30A-C</td>
</tr>
<tr>
<td>50</td>
<td>100</td>
<td></td>
<td></td>
<td>CYHCS-EKAD50A-C</td>
</tr>
<tr>
<td>100</td>
<td>200</td>
<td></td>
<td></td>
<td>CYHCS-EKAD100A-C</td>
</tr>
<tr>
<td>200</td>
<td>400</td>
<td></td>
<td></td>
<td>CYHCS-EKAD200A-C</td>
</tr>
<tr>
<td>400</td>
<td>800</td>
<td></td>
<td></td>
<td>CYHCS-EKAD400A-C</td>
</tr>
<tr>
<td>500</td>
<td>1000</td>
<td></td>
<td></td>
<td>CYHCS-EKAD500A-C</td>
</tr>
</tbody>
</table>

(Connector: Molex connector C=M; Phoenix Connector: C=P)

Supply Voltage $V_{cc} = \pm 15V \pm 5\%$
Current Consumption $I_c < 25mA$
Galvanic isolation, 50/60Hz, 1min: $2.5kV$
Load resistance: $10k\Omega$
Isolation resistance @ 500 VDC $> 500 M\Omega$

### Accuracy and Dynamic performance data
- Accuracy at $I_r$, $T_A=25^\circ C$ (without offset), $X < 1.0\%$
- Linearity from 0 to $I_r$, $T_A=25^\circ C$, $E_L < 1.0\% FS$
- Electric Offset Voltage, $T_A=25^\circ C$, $V_{oe} < 25mV$
- Thermal Drift of Offset Voltage, $V_{ot} < 0.5mV/\circ C$
- Response Time at 90% of $I_P$ ($f=1k$Hz), $t_r < 200ms$
- Frequency bandwidth (-3 dB): 20Hz - 20kHz

### General Data
- Ambient Operating Temperature, $T_A = -25^\circ C ~ +85^\circ C$
- Ambient Storage Temperature, $T_S = -40^\circ C ~ +100^\circ C$
PIN Definition and Dimensions

Connection

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.
DIN Rail Adapter CY-DRA88

The DIN Rail Adapter CY-DRA88 is designed for mounting the sensor on 35mm DIN Rail. It has the size 70 x 24 x 23mm. The height from bottom to mounting surface is 14.8mm.
Mounting of Sensors

Sensor with Molex Connector
(The distance between the bottom and the middle of hole is 54.8mm)

Sensor with Phoenix Connector
(The distance between the bottom and the middle of hole is 54.8mm)
Hall Effect AC Current Sensor CYHCS-D6V

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 AC current etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

### Product Characteristics
- 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

### Applications
- Photovoltaic equipment
- Frequency conversion timing equipment
- Various power supply
- Uninterruptible power supplies (UPS)
- Electric welding machines
- Transformer substations
- Numerical controlled machine tools
- Electric powered locomotive
- Microcomputer monitoring
- Electric power network monitoring

### Electrical Data

<table>
<thead>
<tr>
<th>Primary Nominal rms Current $I_r$ (A)</th>
<th>Measuring Range (A)</th>
<th>DC Output Voltage (V)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>0 ~ ±50A</td>
<td>x=0: 0-4V ±1.0%</td>
<td>CYHCS-D6V-50A-xn</td>
</tr>
<tr>
<td>100</td>
<td>0 ~ ±100A</td>
<td>x=3: 0-5V ±1.0%</td>
<td>CYHCS-D6V-100A-xn</td>
</tr>
<tr>
<td>200</td>
<td>0 ~ ±200A</td>
<td>x=8: 0-10V ±1.0%</td>
<td>CYHCS-D6V-200A-xn</td>
</tr>
<tr>
<td>300</td>
<td>0 ~ ±300A</td>
<td></td>
<td>CYHCS-D6V-300A-xn</td>
</tr>
<tr>
<td>400</td>
<td>0 ~ ±400A</td>
<td></td>
<td>CYHCS-D6V-400A-xn</td>
</tr>
<tr>
<td>500</td>
<td>0 ~ ±500A</td>
<td></td>
<td>CYHCS-D6V-500A-xn</td>
</tr>
<tr>
<td>600</td>
<td>0 ~ ±600A</td>
<td></td>
<td>CYHCS-D6V-600A-xn</td>
</tr>
<tr>
<td>700</td>
<td>0 ~ ±700A</td>
<td></td>
<td>CYHCS-D6V-700A-xn</td>
</tr>
<tr>
<td>800</td>
<td>0 ~ ±800A</td>
<td></td>
<td>CYHCS-D6V-800A-xn</td>
</tr>
<tr>
<td>900</td>
<td>0 ~ ±900A</td>
<td></td>
<td>CYHCS-D6V-900A-xn</td>
</tr>
<tr>
<td>1000</td>
<td>0 ~ ±100AA</td>
<td></td>
<td>CYHCS-D6V-1000A-xn</td>
</tr>
</tbody>
</table>

$n=2$, $V_{cc}=+12VDC$ ±5%; $n=3$, $V_{cc}=+15VDC$ ±5%; $n=4$, $V_{cc}=+24VDC$±5%

Supply Voltage: $V_{cc}=+12V$, +15V, +24V ±5%
Current Consumption: $I_c < 25mA$
Isolation Voltage: 2.5kV, 50/60Hz, 1min
Output Voltage at $I_r$, $T_A=25°C$: $V_{out}=0-4V$, 0-5V, 0-10VDC
Output Impedance: $R_{out} < 150\Omega$
Load Resistor: $R_L > 10\Omega$

Accuracy at $I_r$, $T_A=25°C$: $X < 1.0%$ FS
Linearity from 0 to $I_r$, $T_A=25°C$: $E_L < 1.0%$ FS
Electric Offset Voltage, $T_A=25°C$: $V_{os} < 50mV$
Magnetic Offset Voltage ($I_r \rightarrow 0$): $V_{om} < 20mV$
Thermal Drift of Offset Voltage, $T_A=25°C$: $V_{ot} < 1.0mV/°C$
PIN Definition and Dimensions

CYHCS-D6V-xxxx

T.C. < ±0.1% /°C
\( t_r < 200\text{ms} \)
\( f_R = 20\text{Hz} - 20 \text{kHz} \)
PBT
\( T_A = -25^\circ\text{C} \sim +85^\circ\text{C} \)
\( T_S = -40^\circ\text{C} \sim +100^\circ\text{C} \)

Ambient Operating Temperature, T.A = -25°C ~ +85°C
Ambient Storage Temperature, T.S = -40°C ~ +100°C

Case Material:
PBT

Thermal Drift (-10°C to 50°C),
Response Time at 90% of \( l_p \) (\( f=1\text{kHz} \))
Frequency Bandwidth (-3dB),

Current direction

Terminal Arrangement

1(+) : Vcc
2(-) : GND
3(M) : Output

Vcc: +12V, +15V, +24V

CYHCS-D6V

Output
GND
Vo
Vo
**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 Current Sensor CYHCS-D6C

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 AC current etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

### Product Characteristics

- 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

### Applications

- Photovoltaic equipment
- Frequency conversion timing equipment
- Various power supply
- Uninterruptible power supplies (UPS)
- Electric welding machines
- Transformer substations
- Numerical controlled machine tools
- Electric powered locomotive
- Microcomputer monitoring
- Electric power network monitoring

### Electrical Data

<table>
<thead>
<tr>
<th>Primary Nominal rms Current (I_r) (A)</th>
<th>Measuring Range (A)</th>
<th>DC Output Current (I_{S}) (mA)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>0 ~ ±50A</td>
<td>4-20 ±1.0%</td>
<td>CYHCS-D6C-50A-n</td>
</tr>
<tr>
<td>100</td>
<td>0 ~ ±100A</td>
<td>CYHCS-D6C-100A-n</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>0 ~ ±200A</td>
<td>CYHCS-D6C-200A-n</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>0 ~ ±300A</td>
<td>CYHCS-D6C-300A-n</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>0 ~ ±400A</td>
<td>CYHCS-D6C-400A-n</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>0 ~ ±500A</td>
<td>CYHCS-D6C-500A-n</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td>0 ~ ±600A</td>
<td>CYHCS-D6C-600A-n</td>
<td></td>
</tr>
<tr>
<td>700</td>
<td>0 ~ ±700A</td>
<td>CYHCS-D6C-700A-n</td>
<td></td>
</tr>
<tr>
<td>800</td>
<td>0 ~ ±800A</td>
<td>CYHCS-D6C-800A-n</td>
<td></td>
</tr>
<tr>
<td>900</td>
<td>0 ~ ±900A</td>
<td>CYHCS-D6C-900A-n</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>0 ~ ±1000A</td>
<td>CYHCS-D6C-1000A-n</td>
<td></td>
</tr>
</tbody>
</table>

\((n=3, V_{cc}=+12VDC ±5\%; n=4, V_{cc}=+15VDC ±5\%; n=5, V_{cc}=+24VDC±5\%)

**Supply Voltage** \(V_{cc}=+12V, +15V, +24V ± 5\%,

**Current Consumption** \(I_c < 25mA + I_s\)

**Galvanic isolation, 50/60Hz, 1min:** \(5kV\)

**Isolation resistance @ 500 VDC** > 500 MΩ

**Accuracy at \(I_r, T_A=25°C,\)** \(X <1.0\% \text{ FS}\)

**Linearity from 0 to \(I_r, T_A=25°C,\)** \(E_L <1.0\% \text{ FS}\)

**Electric Offset Current, \(T_A=25°C,\)** \(4mA\)

**Thermal Drift of Offset Current,** \(<±0.005mA/^\circ C\)

**Response Time at 90\% of \(I_P, (f=1kHz)\)** \(t < 200ms\)

**Frequency bandwidth (-3 dB):** 20Hz - 20kHz

**Load resistance:** 80-450Ω

**Mean Time Between Failures (MTBF):** 50k - 100k hours
PIN Definition and Dimensions

**CYHCS-D6C-xxxx**

Ambient Operating Temperature, $T_A = -25^\circ C \sim +85^\circ C$

Ambient Storage Temperature, $T_S = -40^\circ C \sim +100^\circ C$

**Terminal Arrangement**

1(+): Vcc
2(-): GND
3(M): Output

**Current direction**

Vcc: +12V, +15V, +24V
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 Current Sensor CYHCS-C3TV

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 current, pulse currents etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

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

Electrical Data

<table>
<thead>
<tr>
<th>Primary Nominal Current $I_r$ (A), rms</th>
<th>Primary Current Measuring Range $I_p$ (A)</th>
<th>DC Output Voltage ($V$)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>50A</td>
<td>0 ~ 50A</td>
<td>x=0: 0-4V ±1.0%</td>
<td>CYHCS-C3TV-50A-xnC</td>
</tr>
<tr>
<td>100A</td>
<td>0 ~ 100A</td>
<td>x=3: 0-5V ±1.0%</td>
<td>CYHCS-C3TV-100A-xnC</td>
</tr>
<tr>
<td>200A</td>
<td>0 ~ 200A</td>
<td>x=8: 0-10V ±1.0%</td>
<td>CYHCS-C3TV-200A-xnC</td>
</tr>
<tr>
<td>300A</td>
<td>0 ~ 300A</td>
<td></td>
<td>CYHCS-C3TV-300A-xnC</td>
</tr>
<tr>
<td>400A</td>
<td>0 ~ 400A</td>
<td></td>
<td>CYHCS-C3TV-400A-xnC</td>
</tr>
<tr>
<td>500A</td>
<td>0 ~ 500A</td>
<td></td>
<td>CYHCS-C3TV-500A-xnC</td>
</tr>
<tr>
<td>800A</td>
<td>0 ~ 800A</td>
<td></td>
<td>CYHCS-C3TV-800A-xnC</td>
</tr>
<tr>
<td>1000A</td>
<td>0 ~ 1000A</td>
<td></td>
<td>CYHCS-C3TV-1000A-xnC</td>
</tr>
<tr>
<td>1500A</td>
<td>0 ~ 1500A</td>
<td></td>
<td>CYHCS-C3TV-1500A-xnC</td>
</tr>
<tr>
<td>2000A</td>
<td>0 ~ 2000A</td>
<td></td>
<td>CYHCS-C3TV-2000A-xnC</td>
</tr>
</tbody>
</table>

(n=2, $V_{cc}$=+12VDC; n=3, $V_{cc}$=+15VDC; n=4, $V_{cc}$=+24VDC)

(Connector: Molex connector C=M; Phoenix Connector: C=P)

Supply Voltage: $V_{cc}$=+12V, +15V, +24V± 5%
Current Consumption: $I_c$ < 25mA
Isolation Voltage: 5kV, 50/60Hz, 1min

Output Impedance: $R_{out}$ < 150Ω
Load Resistor: $R_L$ > 10kΩ
Accuracy at $I_r$, $T_A$=25°C,
Linearity from 0 to $I_r$, $T_A$=25°C,
Electric Offset Voltage, $T_A$=25°C,
Magnetic Offset Voltage ($I_r$ → 0)
Thermal Drift of Offset Voltage,
Thermal Drift (-10°C to 50°C),
Response Time at 90% of $I_p$ ($f=1k$ Hz),
Frequency Bandwidth (-3dB),
Case Material: PBT, heat resistant 125°C flame retardant
**General Data**

Ambient Operating Temperature, $T_A = -25^\circ C ~ +85^\circ C$

Ambient Storage Temperature, $T_S = -40^\circ C ~ +100^\circ C$

**PIN Definition and Dimensions**

![PIN Diagram]

OFS: Offset Adjustment  
GIN: Gain Adjustment

**Connection**

![Connection Diagram]

Vcc: +12V, +15V, +24V

**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 Current Sensor CYHCS-EKBDA

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 current, pulse currents etc. The output of the transducer reflects the rectified average value of the current in the carrying conductor.

### Product Characteristics
- 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

### Applications
- 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

<table>
<thead>
<tr>
<th>Primary Nominal RMS Current $I_r$ (A)</th>
<th>Measuring Range (A)</th>
<th>DC Output Current (mA)</th>
<th>Aperture Diameter (mm)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>0 ~ 50</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-50A-nC</td>
</tr>
<tr>
<td>100</td>
<td>0 ~ 100</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-100A-nC</td>
</tr>
<tr>
<td>200</td>
<td>0 ~ 200</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-200A-nC</td>
</tr>
<tr>
<td>500</td>
<td>0 ~ 500</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-500A-nC</td>
</tr>
<tr>
<td>800</td>
<td>0 ~ 800</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-800A-nC</td>
</tr>
<tr>
<td>1000</td>
<td>0 ~ 1000</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-1000A-nC</td>
</tr>
<tr>
<td>1500</td>
<td>0 ~ 1500</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-1500A-nC</td>
</tr>
<tr>
<td>2000</td>
<td>0 ~ 2000</td>
<td>4-20 ±1.0%</td>
<td>Ø40.5</td>
<td>CYHCS-EKBDA-2000A-nC</td>
</tr>
</tbody>
</table>

(n=3, $V_{cc}$= +12VDC ±5%; n=4, $V_{cc}$= +15VDC ±5%; n=5, $V_{cc}$= +24VDC±5%)

(Connector: Molex connector C=M; Phoenix Connector: C=P)

Supply Voltage
- $V_{cc}$=+12V, +15V, +24V ± 5%

Current Consumption
- $I_c$ < 25mA

Galvanic isolation, 50/60Hz, 1min:
- 5kV

Isolation resistance @ 500 VDC
- > 500 MO

### 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:
  - $E_L<1.0\%$ FS
- Electric Offset Current, $T_A$=25°C:
  - 4mA
- Thermal Drift of Offset Current,
- Response Time $t<200$ms
- Frequency bandwidth (-3 dB):
  - 20Hz - 20kHz
- Load resistance:
  - 80-450Ω
General Data

Ambient Operating Temperature,
Temperature: $T_A = -25°C \sim +85°C$

Ambient Storage Temperature,
Temperature: $T_S = -40°C \sim +100°C$

PIN Definition and Dimensions

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 Current Sensor CYHCS-WF3

The sensor CYHCS-WF3 is an open loop Hall Effect Sensor for the measurement of AC current. The sensor has a galvanic isolation between the primary conductor and the secondary electronic circuit.

### Features and Advantages
- DC current measurement
- Output signal option (0-20mA, 4-20mA, 0-5V, ±5V, 0-10V)
- 35mm DIN Rail
- High isolation between primary and secondary circuits
- No insertion losses
- Easy installation

### Applications
- Photovoltaic equipment
- Battery banks, such as, monitoring load current and charge current, verifying operation
- Transportation, measuring traction power or auxiliary loads
- Phase fired controlled heaters
- Directly connect to PLC
- Sense motor stalls and short circuits

### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated input current (DC current calibration)</td>
<td>50A ~ 800A</td>
</tr>
<tr>
<td>Linear measuring range</td>
<td>0-60A ~ 0-960A</td>
</tr>
<tr>
<td>Overload current capability</td>
<td>20 times of rated input current, 5sec</td>
</tr>
<tr>
<td>Output signals</td>
<td>±5VDC, 0-5VDC, 0-10VDC, 0-20mA, 4-20mA</td>
</tr>
<tr>
<td>Power supply (voltage Ripple)</td>
<td>+12V DC, +24V DC, ±12V DC, ±15V DC (5%)</td>
</tr>
<tr>
<td>Measuring accuracy</td>
<td>±1.0%</td>
</tr>
<tr>
<td>Linearity (10% - 100%), 25°C</td>
<td>±0.5% FS</td>
</tr>
<tr>
<td>Zero offset voltage</td>
<td>±25mV</td>
</tr>
<tr>
<td>Thermal drift of offset voltage</td>
<td>±0.04%/°C</td>
</tr>
<tr>
<td>Galvanic isolation</td>
<td>6 kV AC, 50Hz, 1min</td>
</tr>
<tr>
<td>Isolation resistance</td>
<td>≥100MΩ</td>
</tr>
<tr>
<td>Response time</td>
<td>≤20µs for tracing output, ≤100ms DC voltage output, ≤150ms DC current output,</td>
</tr>
<tr>
<td>di/dt following accuracy</td>
<td>50A/µs</td>
</tr>
<tr>
<td>Current consumption</td>
<td>≤50mA</td>
</tr>
<tr>
<td>Output load</td>
<td>Voltage output : ≥2kΩ, Current output: ≤250Ω</td>
</tr>
<tr>
<td>Frequency range</td>
<td>25Hz ~ 5kHz</td>
</tr>
<tr>
<td>Case style and Window size</td>
<td>WF3, Ф35mm</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-25°C ~ +70°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-45°C ~ + 85°C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>≤90%</td>
</tr>
<tr>
<td>MTBF</td>
<td>&gt;50000h</td>
</tr>
<tr>
<td>Unit weight</td>
<td>200g</td>
</tr>
</tbody>
</table>

### Definition of Part number:

<table>
<thead>
<tr>
<th>CYHCS</th>
<th>-</th>
<th>WF3</th>
<th>-</th>
<th>m</th>
<th>-</th>
<th>x</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td>(2)</td>
<td></td>
<td>(3)</td>
<td></td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>
**DIMENSIONS (mm)**

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series name</td>
<td>Case style</td>
<td>Rated Input current (m)</td>
<td>Output signal</td>
<td>Power supply</td>
</tr>
<tr>
<td>CYHCS</td>
<td>WF3</td>
<td>m = 50A, 100A, 200A, 300A, 400A, 500A, 600A, 700A, 800A</td>
<td>x=1: tracing voltage ±5V DC</td>
<td>n=2: ±12V DC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>x=3: 0-5V DC</td>
<td>n=4: ±24V DC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>x=4: 0-20mA DC</td>
<td>n=5: ±12V DC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>x=5: 4-20mA DC</td>
<td>n=6: ±15V DC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>x=8: 0-10V DC</td>
<td></td>
</tr>
</tbody>
</table>

**Example 1:** CYHCS-WF3-400A -15, Hall Effect AC Current sensor with
Output signal: tracing voltage ±5V AC
Power supply: ±12V DC
Rated input current: 400A AC

**Example 2:** CYHCS-WF3-400A -14, Hall Effect AC Current sensor with
Output signal: tracing voltage ±5V AC
Power supply: +24V DC
Rated input current: 400A AC

**Example 3:** CYHCS-WF3-400A -54, Hall Effect AC Current sensor with
Output signal: 4-20mA DC
Power supply: +24V DC
Rated input current: 400A AC

Dimensions: 107 x 24 x 60mm, Aperture: Ø35 mm

Pin Arrangement:
+ : V+     - : V- (or NC)
OUT: Output  GND: Ground
CONNECTIONS

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**

\[ +: +15V/+12V \]
\[ -: -15V/-12V \]

**Relation between Input and Output:**

<table>
<thead>
<tr>
<th>Sensor CYHCS-WF3-400A-15</th>
<th>Input current (A)</th>
<th>Output voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-400</td>
<td>-5</td>
</tr>
<tr>
<td></td>
<td>-200</td>
<td>-2.5</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>5</td>
</tr>
</tbody>
</table>

**Current Output**

\[ +: +12V/+15V \]
\[ -: -12V/-15V \]

**Relation between Input and Output (for \( R_m \leq 250\Omega \):**

<table>
<thead>
<tr>
<th>Sensor CYHCS-WF3-400A-55</th>
<th>Input current (A)</th>
<th>Output current Io(mA, DC)</th>
<th>Output voltage Vo (V, DC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>20</td>
<td>5</td>
</tr>
</tbody>
</table>
B) Wiring of Sensors Using Single Power Supply

Voltage Output

```
:+: +12V, +24V
OUT: Output
GND: Ground
-: NC
```

Relation between Input and Output:

<table>
<thead>
<tr>
<th>Sensor CYHCS-WF3-400A-14</th>
<th>Input current (A)</th>
<th>Output voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-400</td>
<td>-5</td>
</tr>
<tr>
<td></td>
<td>-200</td>
<td>-2.5</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>5</td>
</tr>
</tbody>
</table>

Current Output

```
:+: +12V, +24V
OUT: Output
GND: Ground
-: NC
```

Relation between Input and Output (for \(R_m\leq 250\Omega\)):

<table>
<thead>
<tr>
<th>Sensor CYHCS-WF3-400A-54</th>
<th>Input current (A)</th>
<th>Output current (I_o) (mA, DC)</th>
<th>Output voltage (V_o) (V, DC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>20</td>
<td>5</td>
</tr>
</tbody>
</table>

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.