



Current Sensors

CYHCT-C2TC

Split Core Hall Effect DC Current Sensor



This Hall Effect current sensor is based on open loop compensating principle and designed with a split core and a high galvanic isolation between primary and secondary circuits. 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
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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)	Part number
25	0 ~ ±25A	4-20 ±1.0%	CYHCT-C2TC-U/B25A-n
30	0 ~ ±30A		CYHCT-C2TC-U/B30A-n
40	0 ~ ±40A		CYHCT-C2TC-U/B40A-n
50	0 ~ ±50A		CYHCT-C2TC-U/B50A-n
100	0 ~ ±100A		CYHCT-C2TC-U/B100A-n
200	0 ~ ±200A		CYHCT-C2TC-U/B200A-n
300	0 ~ ±300A		CYHCT-C2TC-U/B300A-n
400	0 ~ ±400A		CYHCT-C2TC-U/B400A-n
500	0 ~ ±500A		CYHCT-C2TC-U/B500A-n
600	0 ~ ±600A		CYHCT-C2TC-U/B600A-n

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

Supply Voltage

V_{cc} = +12V, +15V, +24VDC ± 5%

Current Consumption

I_c < 20mA + 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 (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 Voltage,

V_{ot} < ±0.005mA/°C

Response Time at 90% of I_P

t_r < 10μs

Load resistance:

80-450Ω

Case Material:

PBT, heat resistant 125°C flame retardant

Products constantly update. All specifications are subject to change without notice.

For more information on this product, please contact:

PC&S, Inc. at +1 (800) 523-9194 or +1 (973) 448-9400

www.pc-s.com

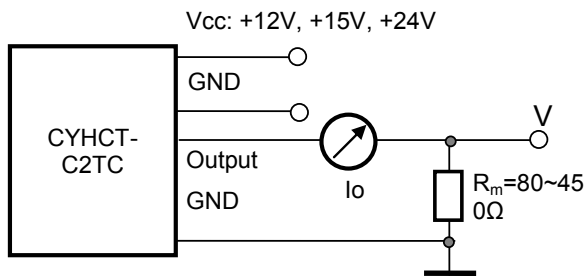
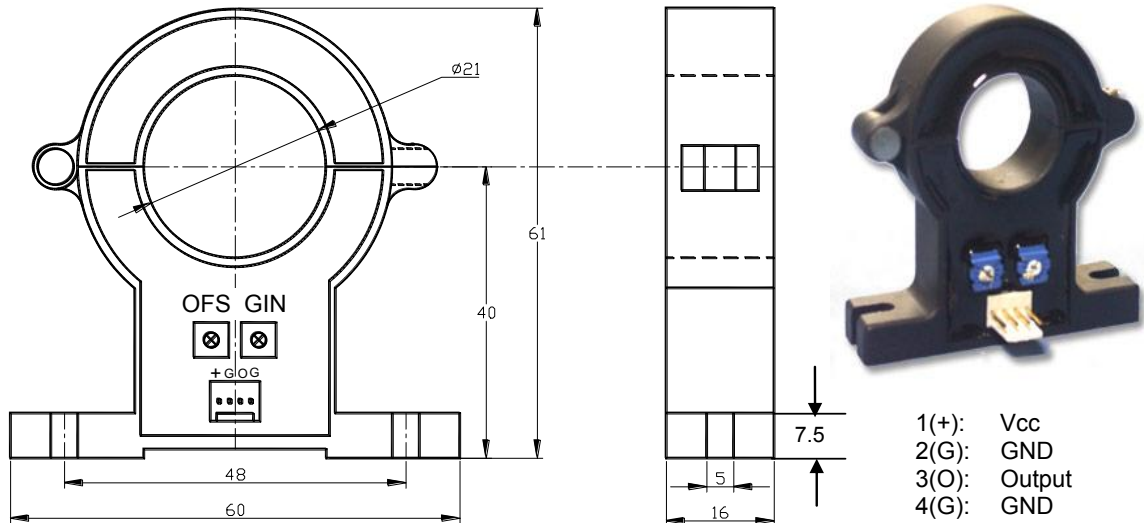
CYHCT-C2TC Current Sensor

General Data

Ambient Operating Temperature,
Ambient Storage Temperature,

$T_A = -40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
 $T_S = -55^{\circ}\text{C} \sim +125^{\circ}\text{C}$

PIN Definition and Dimensions



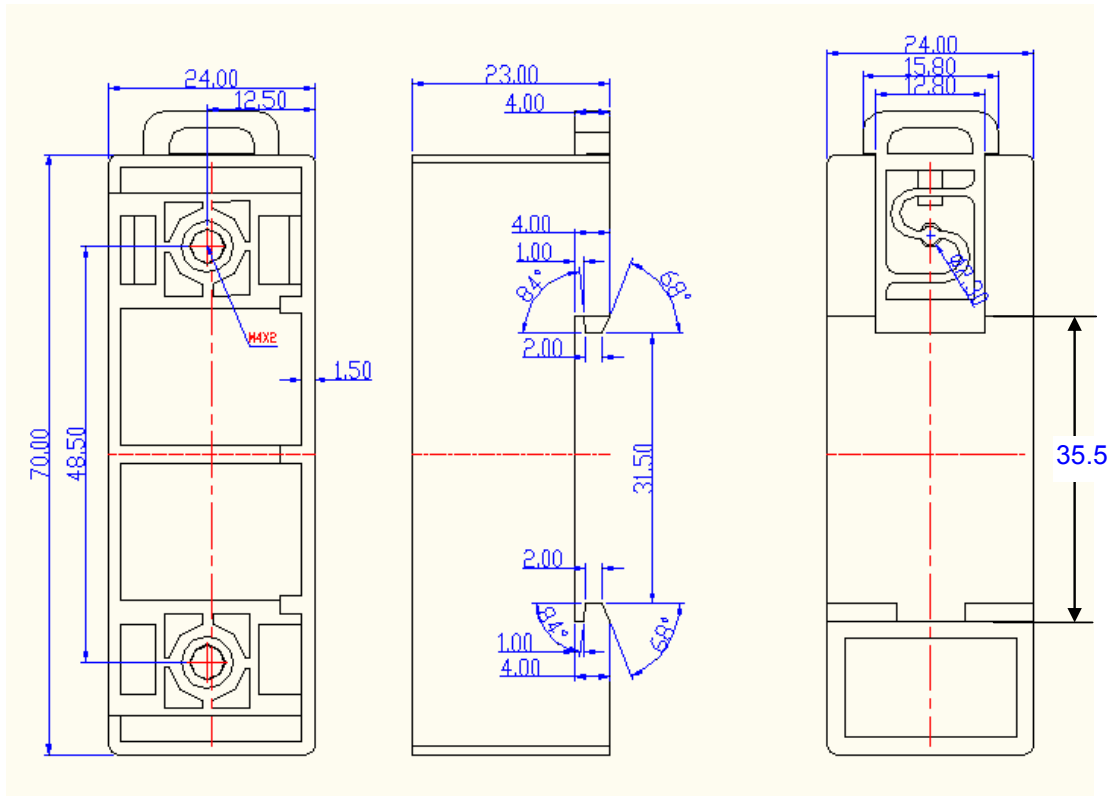
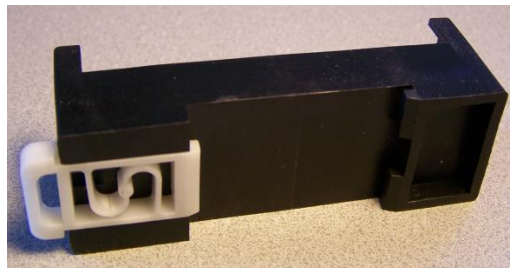
Notes:

1. Connect the terminals of power source, outputs 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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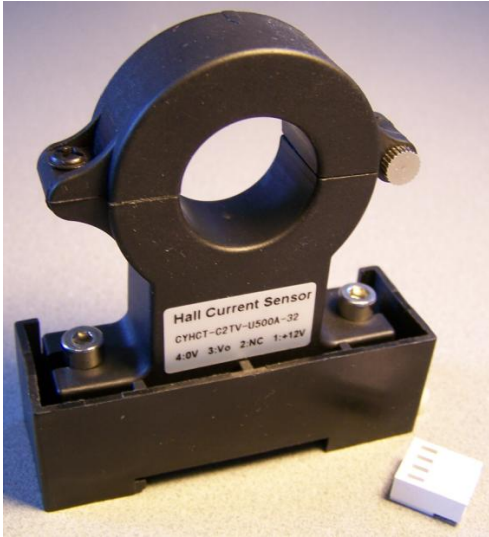
DIN Rail Adapter CY-DRA88

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.

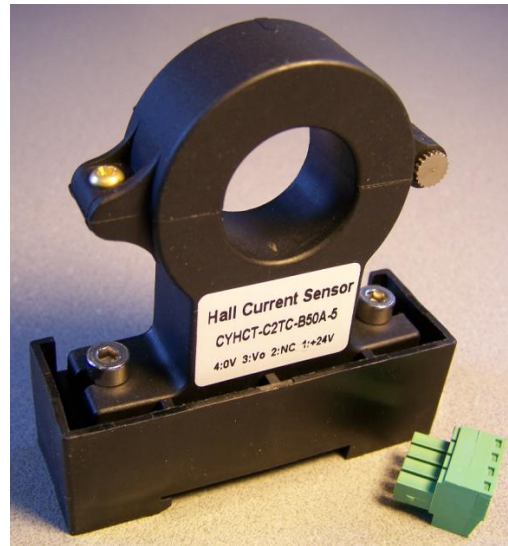


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Mounting of Sensors



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)



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For more information and certifications, please contact:

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