



Current Sensors

CYHCS-EKBDA

Split Core Hall Effect DC Current Sensor



This Hall Effect current sensor is based on open loop principle and designed with a split core and a high galvanic isolation between primary and secondary circuits. It can be used for measurement of AC current, pulse currents 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 equipments • 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)	DC Output Current (mA)	Aperture Diameter (mm)	Part number
50	0 ~ 100	4-20 ±1.0%	Ø40.5	CYHCS-EKBDA-50A-nC
100	0 ~ 200			CYHCS-EKBDA-100A-nC
200	0 ~ 400			CYHCS-EKBDA-200A-nC
500	0 ~ 1000			CYHCS-EKBDA-500A-nC
800	0 ~ 1600			CYHCS-EKBDA-800A-nC
1000	0 ~ 2000			CYHCS-EKBDA-1000A-nC
1500	0 ~ 3000			CYHCS-EKBDA-1500A-nC
2000	0 ~ 3000			CYHCS-EKBDA-2000A-nC

(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 MΩ

Accuracy and Dynamic performance data

Accuracy at I_r , T_A =25°C,

X <1.0% FS

Linearity from 0 to I_r , T_A =25°C,

E_L <1.0% FS

Electric Offset Current, T_A =25°C,

4mA

Thermal Drift of Offset Current,

V_{ot} <±0.005mA/°C

Response Time at 90% of I_P (f =1k Hz)

t_r < 20ms

Frequency bandwidth (- 3 dB):

20Hz - 20kHz

Load resistance:

80-450Ω

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

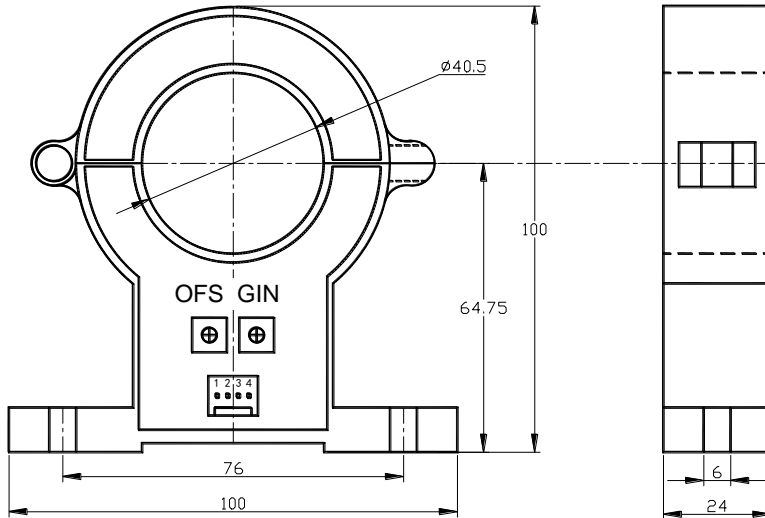
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General Data

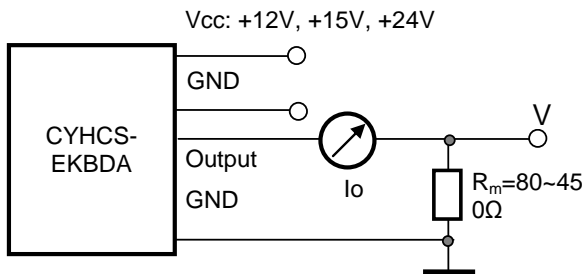
Ambient Operating Temperature,
Ambient Storage Temperature,

$T_A = -25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
 $T_S = -40^{\circ}\text{C} \sim +100^{\circ}\text{C}$

PIN Definition and Dimensions



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



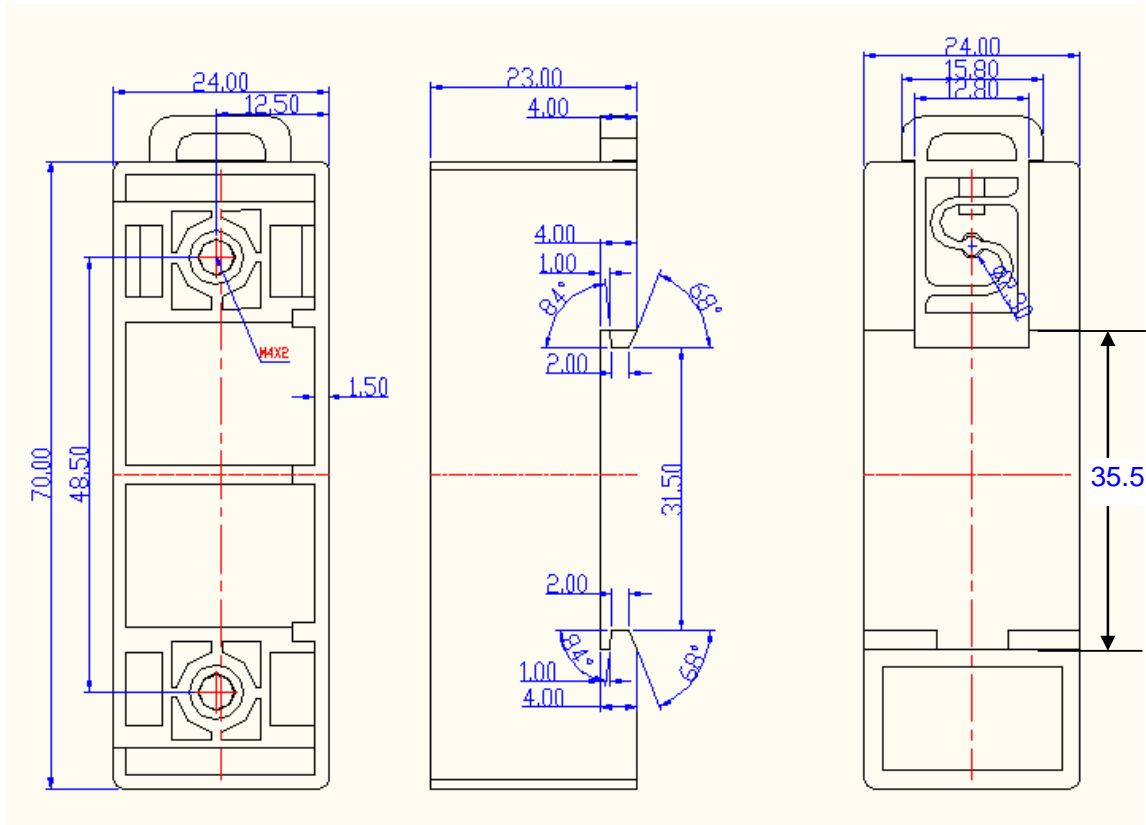
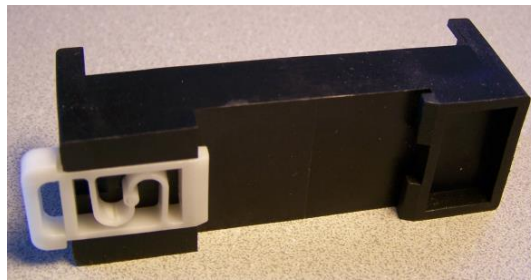
Notes:

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)



www.pc-s.com

For more information and certifications, please contact:

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