



## Closed Loop Hall Effect Current Sensor CYHCT-E3

This Hall Effect current sensor is based on closed loop compensating principle and can be used for measurement of DC currents. The output of the transducer reflects the real wave of the current carrying conductor.

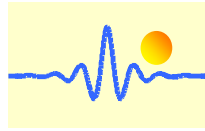
Product Characteristics	Applications
<ul style="list-style-type: none"><li>• Excellent accuracy</li><li>• Very good linearity</li><li>• Small size</li><li>• Light in weight</li><li>• Less power consumption</li><li>• Window structure</li><li>• Electrically isolating the output of the transducer from the current carrying conductor</li><li>• No insertion loss</li><li>• Current overload capability</li></ul>	<ul style="list-style-type: none"><li>• Frequency conversion timing equipments</li><li>• Various power supply</li><li>• Uninterruptible power supplies (UPS)</li><li>• Electric welding machines</li><li>• Transformer substation</li><li>• Numerical controlled machine tools</li><li>• Electrolyzing and electroplating equipments</li><li>• Electric powered locomotive</li><li>• Microcomputer monitoring</li><li>• Electric power network monitoring</li></ul>

### ELECTRICAL DATA

Part number	CYHCT-E3-50A-X	CYHCT-E3-100A-X	Unit
Measuring range	50	100	A
Linearity range	75	150	A
Overload capacity	100	200	A
Nominal output current	50±0.5%		mA
Supply voltage	X=1 for ±12V±5%, X=2 for ±15V±5%		V
Current consumption	≤10 + output current		mA
Galvanic isolation	3KV RMS/50Hz/min		KV

### ACCURACY DYNAMIC PERFORMANCE

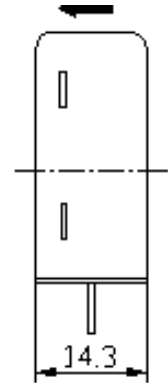
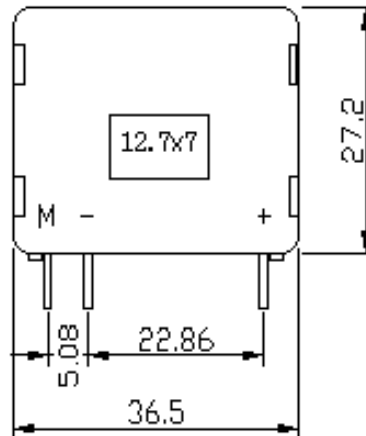
Zero offset current	±0.2	mA
Hysteresis error	±0.2	mA
Thermal drift of offset current	≤200	ppm/°C
Response time	≤1	µs
Accuracy	±0.5	%
Linearity	≤0.1	%FS



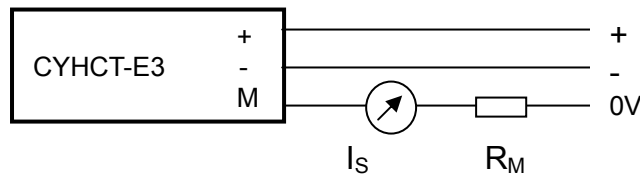
## GENERAL DATA

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

## DIMENSIONS (mm)



## CONNECTION



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

### Wiring of Terminals:

- +: +15V/+12V Power Supply
- M: Output
- : -15V/-12V Power Supply

### 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 case.