

AC/DC Closed Loop Hall Current Sensor CYHCS-B4C

This Hall Effect current sensor is based on closed loop compensating 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 • Less power consumption • Current overload capability • Goods temperature properties	• Photovoltaic equipment • General Purpose Inverters • AC/DC Variable Speed Drivers • Battery Supplied Applications • Uninterruptible Power Supplies (UPS) • Switched Mode Power Supplies

ELECTRICAL CHARACTERISTICS

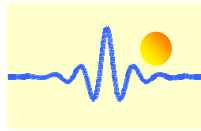
Part number	CYHCS-B4C-200A	CYHCS-B4C-300A	CYHCS-B4C-400A	CYHCS-B4C-500A
Rated current (RMS)	200A	300A	400A	500A
Measuring range	±800A (±24V, 30 Ω)	±1200A (±24V, 25 Ω)	±1600A (±24V, 20 Ω)	±2000A (±24V, 10 Ω)
Turns ratio	1:2000	1:3000	1:4000	1:5000
Secondary Internal Resistance	25Ω	30Ω	35Ω	42Ω
Rated output current	100mA±0.5%	100mA±0.5%	100mA±0.5%	100mA±0.5%
Measuring resistance	10Ω ~ 100Ω	10Ω ~ 100Ω	10Ω ~ 50Ω	10Ω ~ 50Ω
Supply voltage	±15V ~ ±24VDC			
Galvanic isolation	6kV RMS/50Hz/1min,			
Current consumption	25mA + output current			

ACCURACY DYNAMIC PERFORMANCE

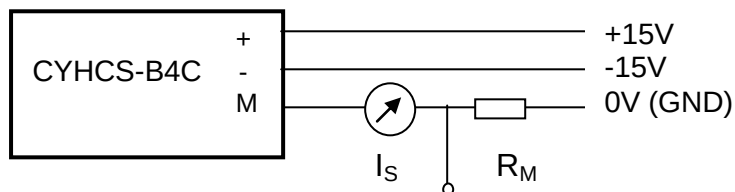
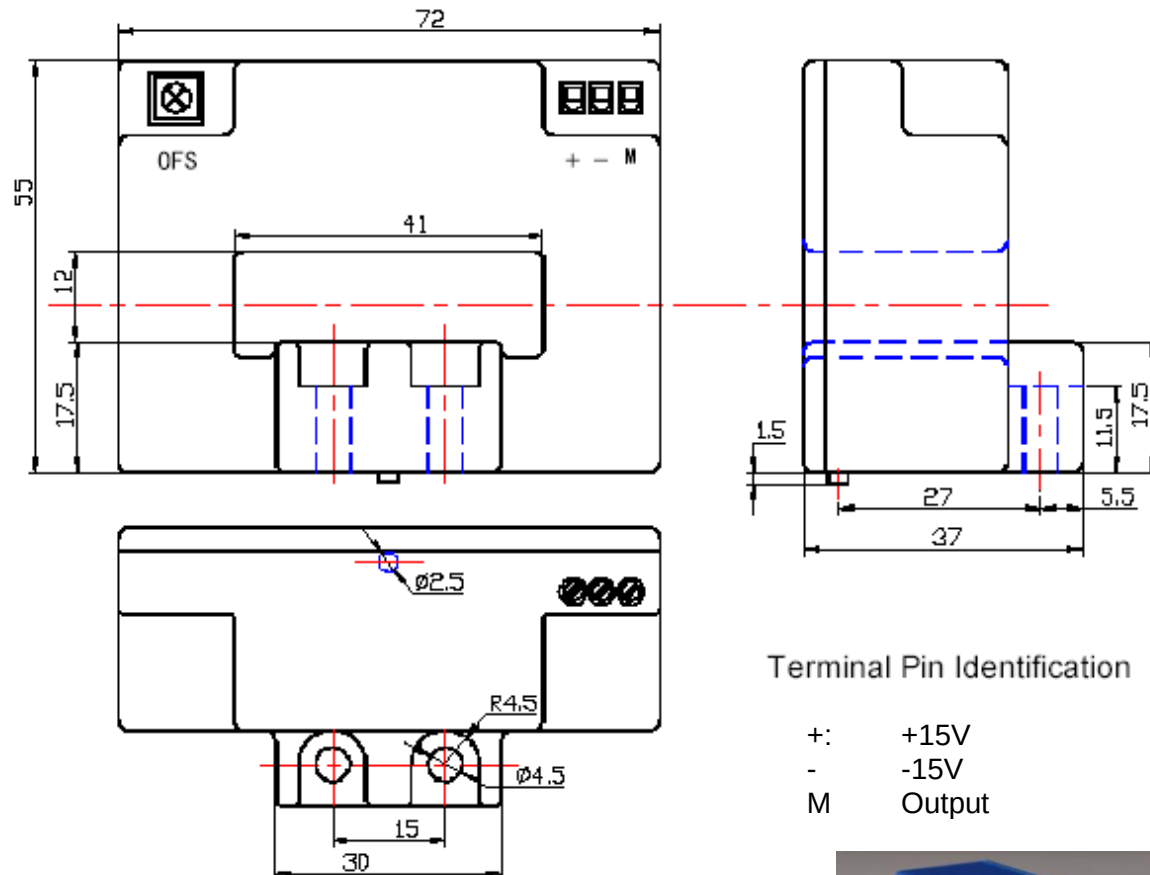
Zero offset current	±0.2mA
Thermal drift of offset current	±0.5mA (-25°C ~ +85°C)
Response time	<1.0μs
Accuracy	±0.5%
Linearity	≤0.1% FS
di/dt following accuracy	150A/μs
Bandwidth(-3dB)	DC ~ 100kHz

GENERAL CHARACTERISTIC

Operating temperature	-25°C~+85°C
Storage temperature	-40°C~+100°C



Dimensions (mm)



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