Closed Loop Hall Current Sensor CYHCS-B3C

This Hall Effect current sensor is based on closed loop compensating principle and 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 • Small size and encapsulated • Less power consumption • Current overload capability	• General Purpose Inverters • AC/DC Variable Speed Drivers • Battery Supplied Applications • Uninterruptible Power Supplies (UPS) • Switched Mode Power Supplies

ELECTRICAL CHARACTERISTICS

Part number	CYHCS-B3C-50A	CYHCS-B3C-100A	CYHCS-B3C-200A	CYHCS-B3C-300A
Rated current (RMS)	±50A	±100A	±200A	±300A
Max. input current	±100A	±200A	±400A	±450A
Resistance of secondary coil	20Ω	20Ω	25Ω	35Ω
Rated output current	±50mA	±100mA	±100mA	±150mA
Measuring resistance R_M	10-50 Ω			
Supply voltage	±15 VDC ±5%			
Galvanic isolation	3kV RMS/50Hz/1min,			

ACCURACY DYNAMIC PERFORMANCE

Zero offset current (magnetic hysteresis)	±0.5mA
Zero offset voltage	±0.2mV
Thermal drift of offset current	±0.01%/°C
Thermal drift of output current	±0.02%/°C
Response time	<1.0μs
Accuracy	±0.5%
Linearity	≤0.1% FS
Bandwidth(-3dB)	DC ~ 150kHz
di/dt	>200

GENERAL CHARACTERISTIC

Operating temperature	-20°C～+75°C
Storage temperature	-40°C～+90°C
Current consumption	12mA + output current

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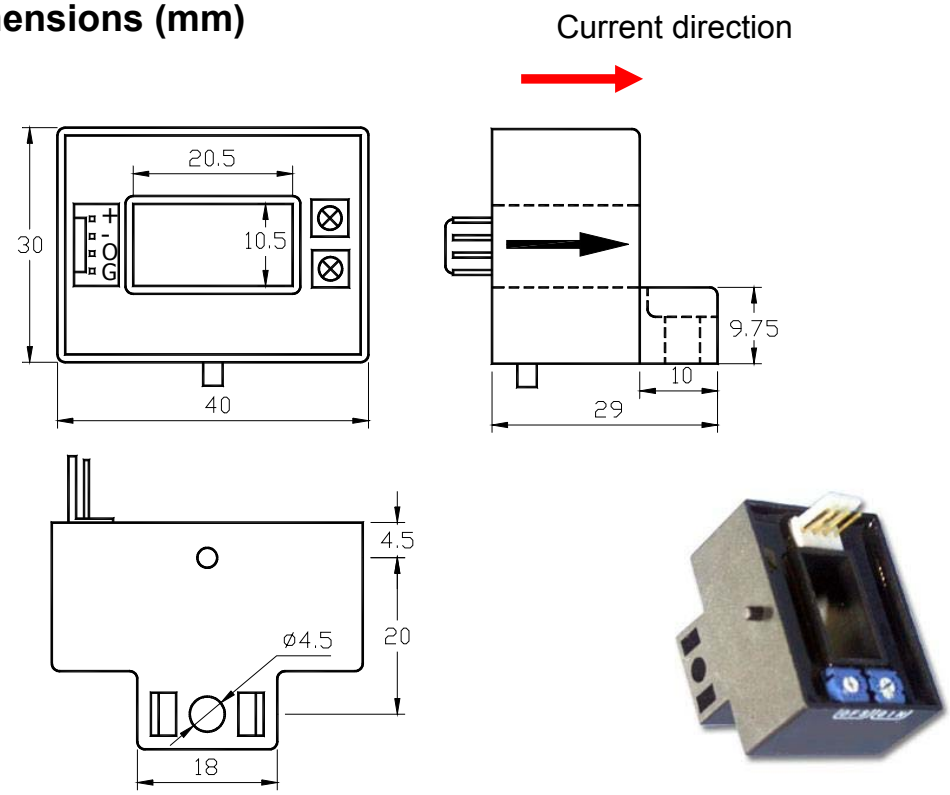
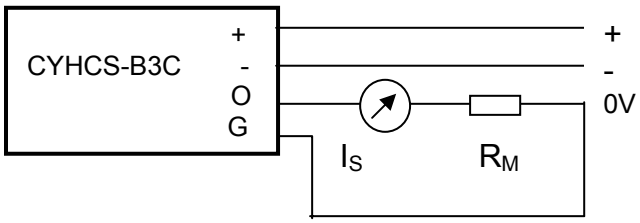
Dimensions (mm)



Terminal +: +15V, Terminal -: -15V, Terminal O: Output, Terminal G: ground



Operating instructions

1. Connect the terminals of power source, outputs respectively and correctly, never make wrong connection for DC current.
2. Temperature of the primary conductor should not exceed 100 °C.
3. Dynamic performances (di/dt and the response time) are best with a single bar completely filling the primary hole.
4. In order to achieve the best magnetic coupling, the primary windings have to be wound over the top edge of the device.

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