ChenYang Technologies GmbH & Co KG

AC/DC Closed Loop Hall Current Sensor CYHCS-B9

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	• **Photovoltaic equipment** • General Purpose Inverters • AC/DC Variable Speed Drivers • Battery Supplied Applications • Uninterruptible Power Supplies • Switched Mode Power Supplies

ELECTRICAL CHARACTERISTICS

Part number	CYHCS-B9-125A	CYHCS-B9-200A	Unit
Rated input current	125	200	A
Measuring range	375	600	A
Rated output current Is	125±0.5%	100±0.5%	mA
Turns ratio	1:1000	1:2000	
Measuring resistance	with±12V @±200Amax 14(min) 30(max)	with±12V @±200Amax 10(min) 75(max)	Ω
	with±12V,@±250Amax 14(min) 20(max)	with±12V,@±250Amax 10(min) 50(max)	Ω
	with±15V @±200Amax 25(min) 47(max)	with±15V @±200Amax 10(min) 100(max)	Ω
	with±15V,@±300Amax 10(min) 22(max)	with±15V,@±300Amax 10(min) 56(max)	Ω
Supply voltage	±15±5%		V
Secondary internal resistance	30		Ω
Accuracy at +25°C	±0.5		%
Galvanic isolation	3, Conditions 50(60)Hz,1min		KV

ACCURACY DYNAMIC PERFORMANCE

Zero offset current	±0.2	mA
Thermal drift of offset current	-25°C ~ +85°C, ±0.5	mA
Response time	<1	μs
Linearity	≤0.1	%FS
Bandwidth(-3dB)	DC…100	KHz
di/dt	>100	A/μs

GENERAL CHARACTERISTIC

Operating temperature	-25 ~ +85	°C
Storage temperature	-40 ~ +100	°C
Current consumption	20mA+Is	

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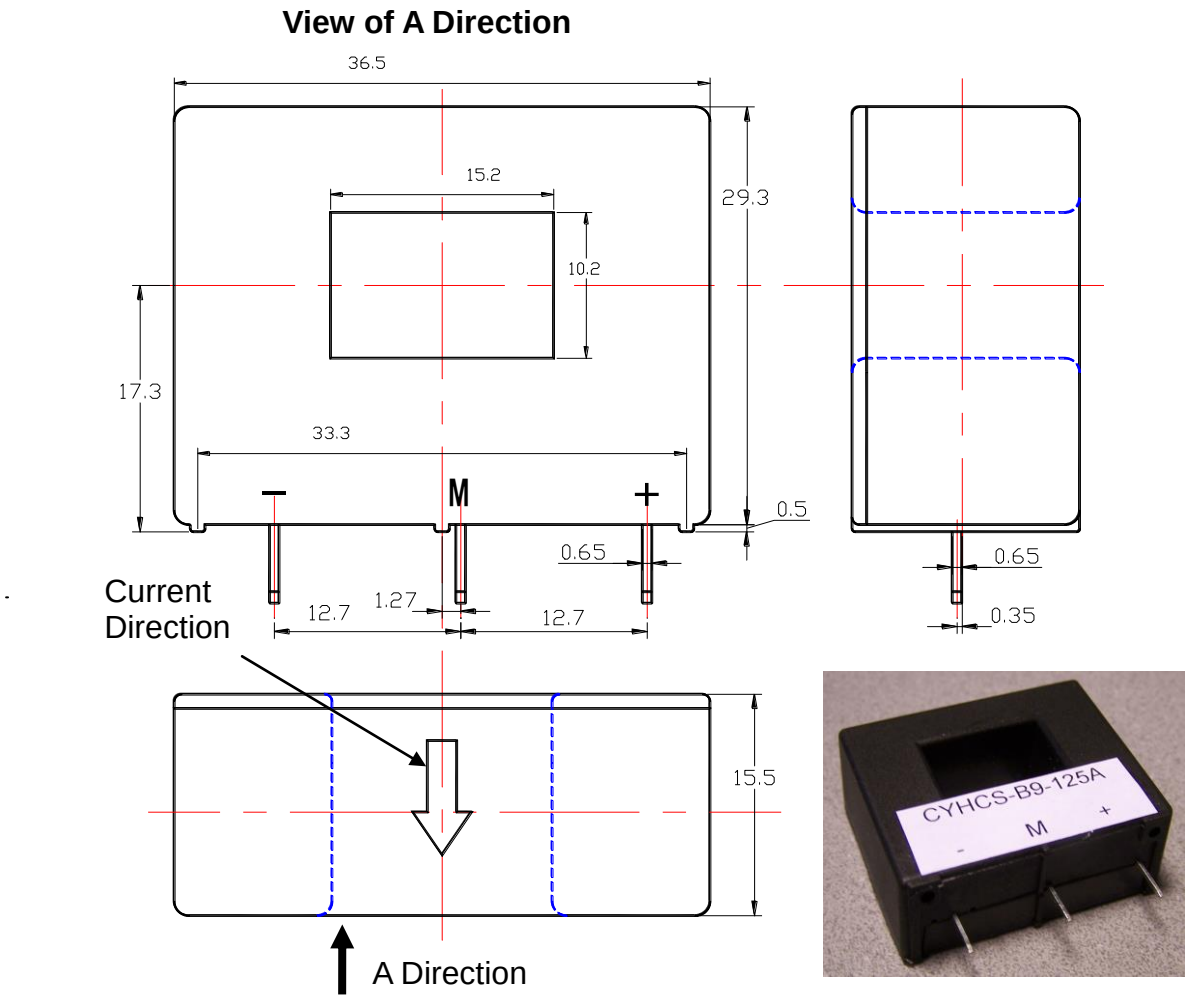
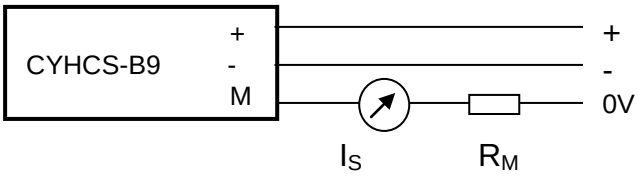
Dimensions (mm)



Terminal +: +12V~ 15V, Terminal -: -12V~ -15V, Terminal M: Output



Operating instructions

1. To guarantee the high performance of the sensor, please use the low temperature soldering tin and shorten the welding time.
2. The output current I_S is positive when primary current I_p flows in the direction of the arrow
3. The temperature of primary conductor should be lower than 100°C.
4. The dynamic performance (di/dt and the response time) of sensor is best When the the primary hole is filled with single busbar completely,
5. 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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