ChenYang Technologies GmbH & Co KG

AC/DC Closed Loop Hall Current Sensor CYHCS-AP

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-AP50A	CYHCS-AP100A	
Rated current	50	100A	A
Measuring range	±150 (±18V, 100Ω)	±300 (±18V, 68Ω)	A
Turns ratio	1:1000	1:2000	
Secondary Internal Resistance	30	45	Ω
Rated output current	50±0.5%	50±0.5%	mA
Measuring resistance	50Ω ~ 100	10 ~ 100	Ω
Supply voltage	±12V ~ ±18VDC		
Galvanic isolation	3kV RMS/50Hz/1min,		
Current consumption	20mA + output current		

ACCURACY DYNAMIC PERFORMANCE

Zero offset current	±0.2mA
Thermal drift of offset current	±0.005mA/°C (-25°C ~ +85°C)
Response time	<1.0μs
Accuracy	±0.5%
Linearity	≤0.1% FS
di/dt following accuracy	200A/μs
Bandwidth(-3dB)	DC ~ 200kHz

GENERAL CHARACTERISTIC

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

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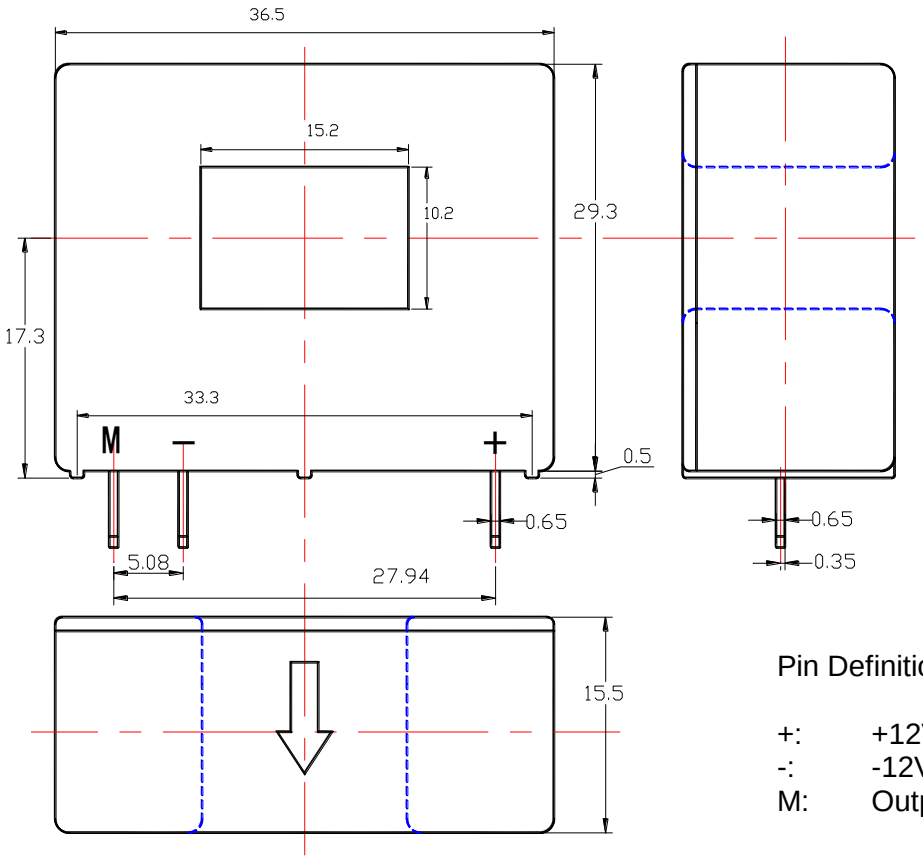
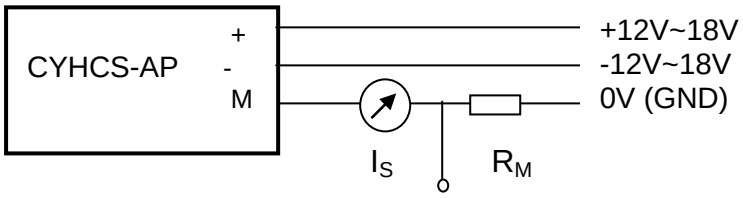
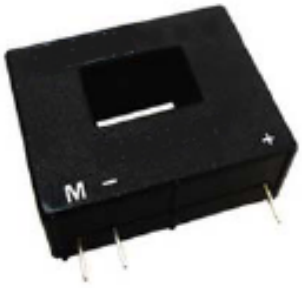
Dimensions (mm)



Pin Definition

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





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

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