Closed Loop Hall AC/DC Current Sensor CYHCS-D7

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 • 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 DATA

Part number	CYHCS-D7-100A	CYHCS-D7-200A	CYHCS-D7-300A	CYHCS-D7-400A	
Nominal current	100	200	300	400	A
Measuring range	300 (±18V, 30 Ω)	600(±18V, 30 Ω)	600 (±18V, 30 Ω)	900 (±18V, 22 Ω)	A
Turns ratio	1:1000	1:2000	1:2000	1:3000	
Nominal output current	100±0.5%	100±0.5%	150±0.5%	133.3±0.5%	mA
Secondary internal resistance	25	25	21	35	Ω
Supply voltage	±12 ~ ±18				V
Current consumption	20 + output current				mA
Galvanic isolation	50Hz, 1min, 6				kV

ACCURACY DYNAMIC PERFORMANCE

Zero offset current	±0.2	mA
Thermal drift of offset current	-10°C ~ +85°C, ±0.5	mA
Response time	<1	μs
Linearity	≤0.1	%FS
Bandwidth(-3dB)	DC…150	kHz
di/dt following accuracy	>200	A/μs

GENERAL DATA

Operating temperature	-10 ~ +85	°C
Storage temperature	-25 ~ +100	°C

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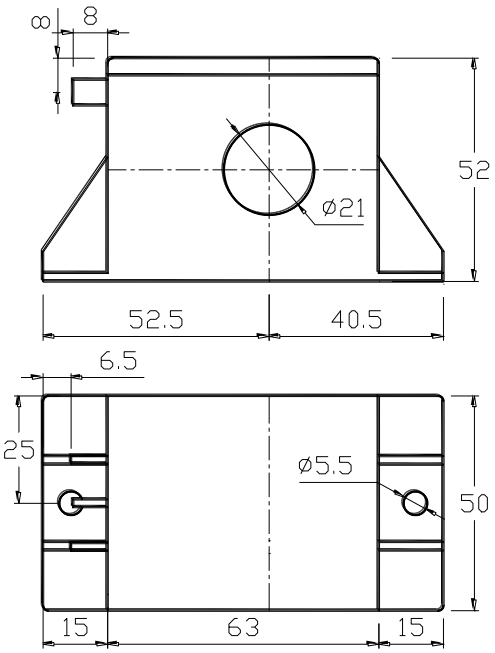
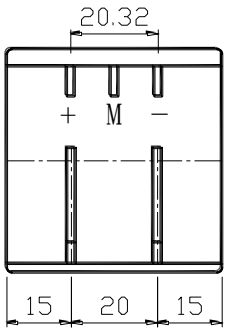
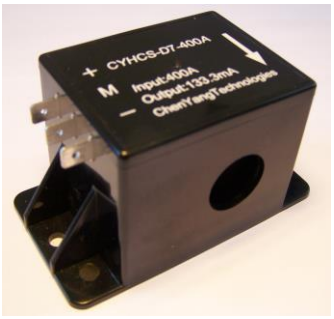
Dimensions (mm)

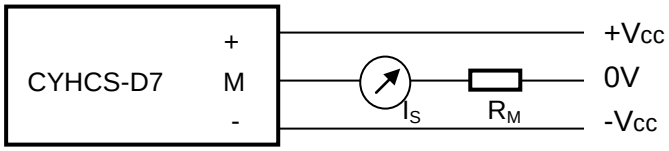






Pin & Terminal Arrangement

+:	+12V ~ +18VDC
-:	-12V ~ -18VDC
M:	Output



Operating instructions

1. Connect the terminals of power source, output 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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