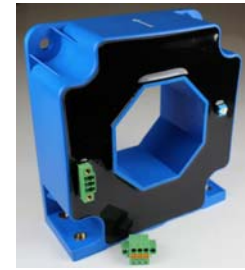




Current Sensors

CYHCS-LF

Closed Loop Hall Current Sensor



This Hall Effect current sensor is based on closed loop compensating principle and can be used for accurate 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
<ul style="list-style-type: none"> • Excellent accuracy • Very good linearity • Small size and encapsulated • Less power consumption • Current overload capability 	<ul style="list-style-type: none"> • Photovoltaic equipment • General Purpose Inverters • AC/DC Variable Speed Drivers • Battery Supplied Applications • Uninterruptible Power Supplies (UPS) • Switched Mode Power Supplies

ELECTRICAL DATA

Part number	CYHCS-LF1000A	CYHCS-LF2000A
Nominal input current	1000A	2000A
Measuring range	0-2000A	0-3000A
Turns ratio	1:5000	
Measuring resistance	with $V_c = \pm 15V$, @ $\pm 2000A_{max}$, 0-5.0 Ω , @ $\pm 2500A_{max}$, 0-2.0 Ω , with $V_c = \pm 24V$, @ $\pm 2000A_{max}$, 0-25 Ω , @ $\pm 3000A_{max}$, 0-10 Ω ,	
Supply voltage	$\pm 15VDC \sim \pm 24VDC$	
Nominal output current	200mA	400mA
Accuracy at +25°C	$\pm 0.2\%$ for rated current 1000A~2000A	
Current consumption	$\leq 30mA + \text{Output current}$	
Galvanic isolation	50Hz, 1min, 6kV	
Secondary internal resistance	$T_a = 25^\circ C$, 28 Ω	

ACCURACY DYNAMIC PERFORMANCE

Zero offset current $T_a = 25^\circ C$	$< \pm 0.2mA$
Magnetic Offset current $I_P \rightarrow 0$	$< \pm 0.2mA$
Thermal drift of offset current	$I_P = 0$, $T_a = -40^\circ C \sim +85^\circ C$, $\pm 0.5mA$
Response time	$< 1\mu s$
Accuracy	$\pm 0.2\%$ for rated current 1000A~2000A
Linearity	$\leq 0.1\%FS$
Bandwidth(-3dB)	DC...150kHz
di/dt	$> 100A/\mu s$

GENERAL DATA

Operating temperature	$-40^\circ C \sim +85^\circ C$
Storage temperature	$-40^\circ C \sim +125^\circ C$

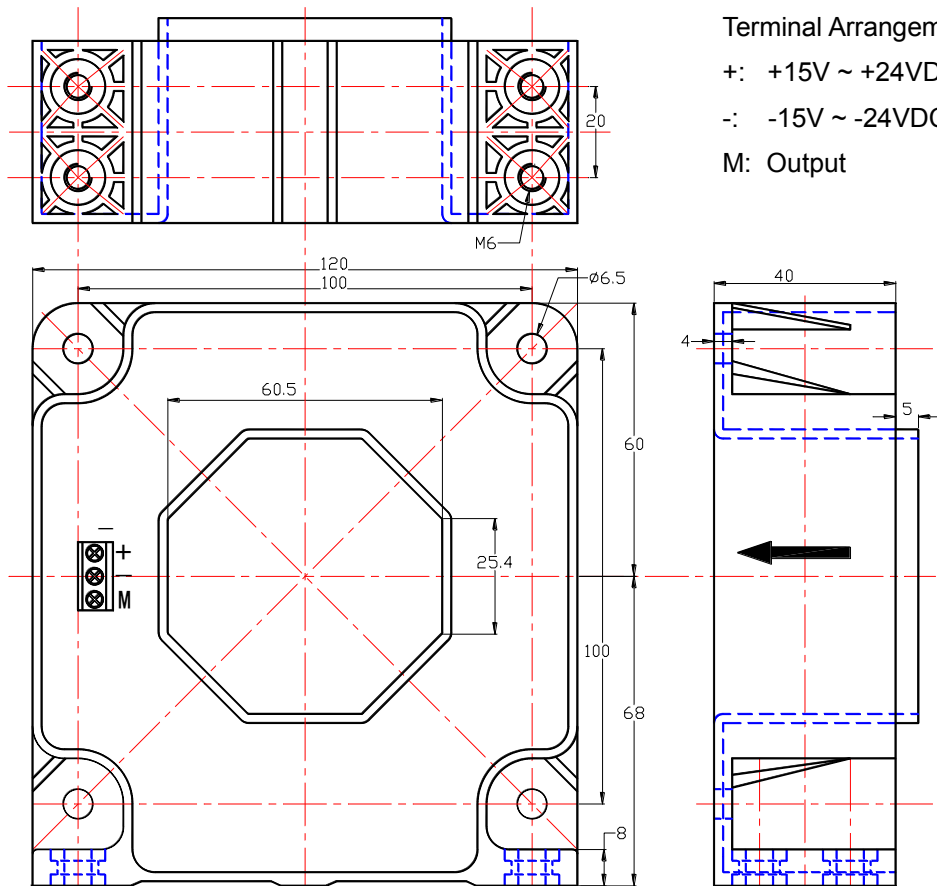
Products constantly update. All specifications are subject to change without notice.
For more information on this product, please contact:

PC&S, Inc. at +1 (800) 523-9194 or +1 (973) 448-9400

www.pc-s.com

CYHCS-LF Current Sensor

Dimensions (mm)

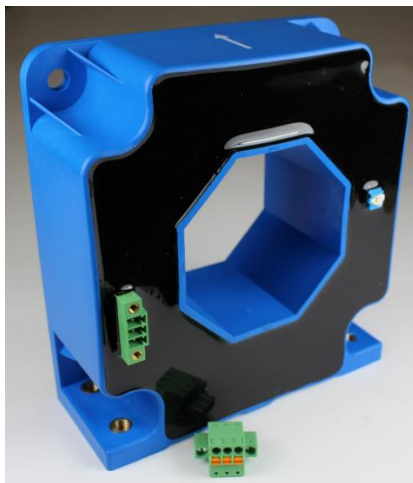


Terminal Arrangement

+: +15V ~ +24VDC

-: -15V ~ -24VDC

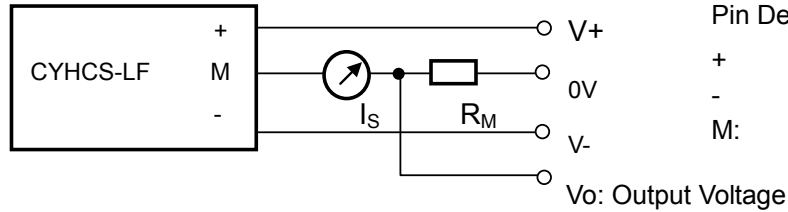
M: Output



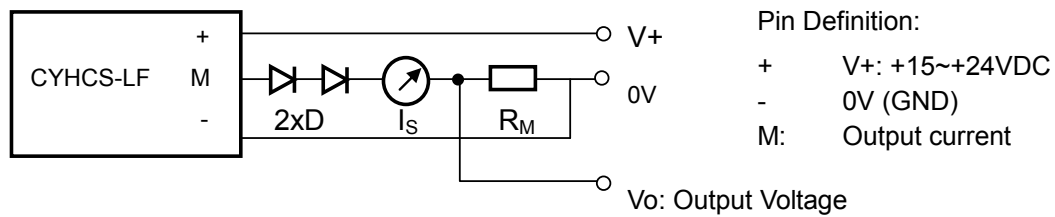
CYHCS-LF Current Sensor

Sensor Connections

1) For Measurement of Bidirectional Current



2) For Measurement of Unidirectional Current



Two diodes for instance IN4007 must be connected at the output of the sensor in order to guarantee the sensor to work well.

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 the 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.

CYHCS-LF Current Sensor



www.pc-s.com

For more information and certifications, please contact:

Panel Components & Systems, Inc. ■ Phone: (800) 523-9194 ■ info@pc-s.com

Main Office:

Stanhope, NJ

Phone: (973) 448-9400