

AC/DC Closed Loop Hall Current Sensor CYHCS-B5C

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
<ul style="list-style-type: none"> • Excellent accuracy • Very good linearity • Less power consumption • Current overload capability • Goods temperature properties 	<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 CHARACTERISTICS

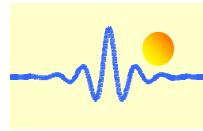
Part number	CYHCS-B5C-200A	CYHCS-B5C-300A	CYHCS-B5C-400A	CYHCS-B5C-500A	CYHCS-B5C-600A
Rated current (RMS)	200A	300A	400A	500A	600A
Measuring range	0~±300A	0~±450A	0~±600A	0~±750A	0~±900A
Turns ratio 1:N	1:2000	1:3000	1:4000	1:5000	1:6000
Secondary Internal Resistance	19Ω	31Ω	44Ω	61Ω	75Ω
Rated output current	100mA±0.5%				
Measuring resistance	10Ω ~ 110Ω	10Ω ~ 105Ω	10Ω ~ 92Ω	10Ω ~ 75Ω	10Ω ~ 61Ω
Supply voltage	±15V ~ ±18VDC				
Galvanic isolation	5kV RMS/50Hz/1min,				
Current consumption	20mA + output current				

ACCURACY & DYNAMIC PERFORMANCE

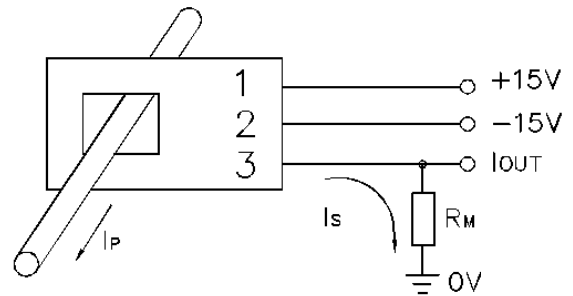
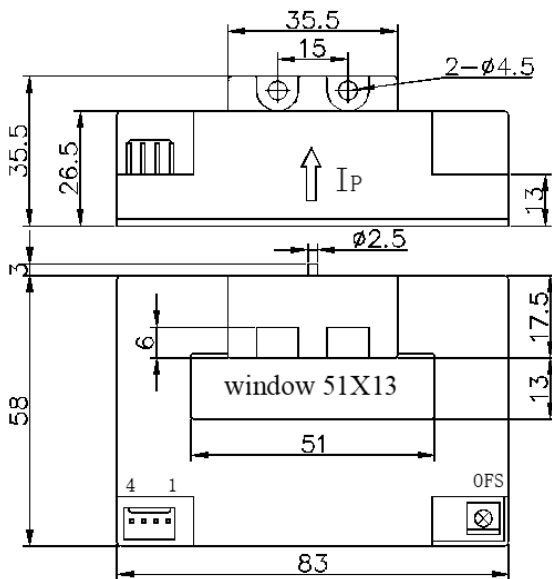
Zero offset current $T_A=25^\circ\text{C}$	±0.3mA
Magnetic zero offset current $I_P=0$	±0.2mA
Thermal drift of offset current	±0.5mA (-25°C ~ +85°C)
Response time	<1.0μs
Accuracy $T_A=25^\circ\text{C}$, $V_C=\pm 15\text{V}$	±0.7%
Linearity $T_A=25^\circ\text{C}$, $V_C=\pm 15\text{V}$	≤0.1% FS
di/dt following accuracy	150A/μs
Bandwidth(-3dB)	DC ~ 100kHz

GENERAL CHARACTERISTIC

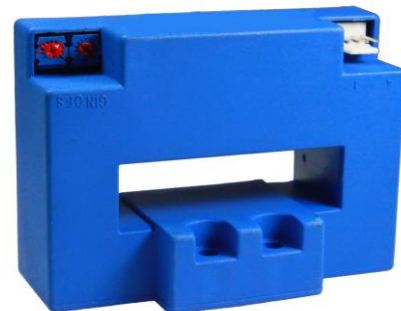
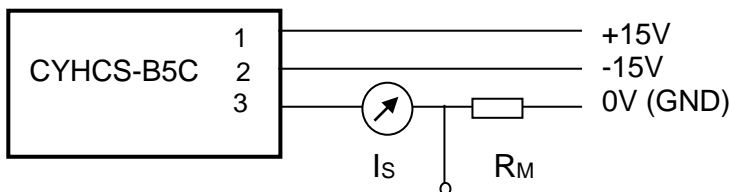
Operating temperature	-25°C~+85°C
Storage temperature	-40°C~+100°C
Unit weight	160g
Standard used	Q/320115QHKJ01-2013



Dimensions (mm)



- 1: +15V
- 2: -15V
- 3: Output current
- 4: NC
- OFS: offset adjustment



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 busbar (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