

Split Core Hall AC/DC Current Sensor CYHCS-KF2

This Split Core Hall Effect current sensor is based on open loop 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 • With Split Core, easy installation • Less power consumption • Window structure • Electrically isolating the output of the transducer from the current carrying conductor • No insertion loss • Current overload capability 	<ul style="list-style-type: none"> • Photovoltaic equipment • Frequency conversion timing equipment • Various power supply • Uninterruptible power supplies (UPS) • Electric welding machines • Transformer substation • Numerical controlled machine tools • Electric powered locomotive • Microcomputer monitoring • Electric power network monitoring

Electrical Data

Primary Nominal Current I_r (A)	Measuring Range (A)	Output voltage (Analog) V_o	Window size (mm)	Part number
300	± 600	X=0: $\pm 4V \pm 1.0\%$ X=1: $\pm 5V \pm 1.0\%$	85 x 27	CYHCS-KF2-300A-X
500	± 1000			CYHCS-KF2-500A-X
600	± 1200			CYHCS-KF2-600A-X
800	± 1600			CYHCS-KF2-800A-X
1000	± 2000			CYHCS-KF2-1000A-X
1500	± 3000			CYHCS-KF2-1500A-X
2000	± 3000			CYHCS-KF2-2000A-X
3000	± 4000			CYHCS-KF2-3000A-X

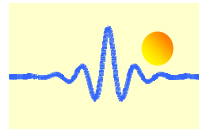
Supply Voltage
Current Consumption
Galvanic isolation, 50/60Hz, 1min:
Isolation resistance @ 500 VDC

$V_{cc} = \pm 12V \sim \pm 15VDC$
 $I_c < 40mA$
5kV rms
> 500 M Ω

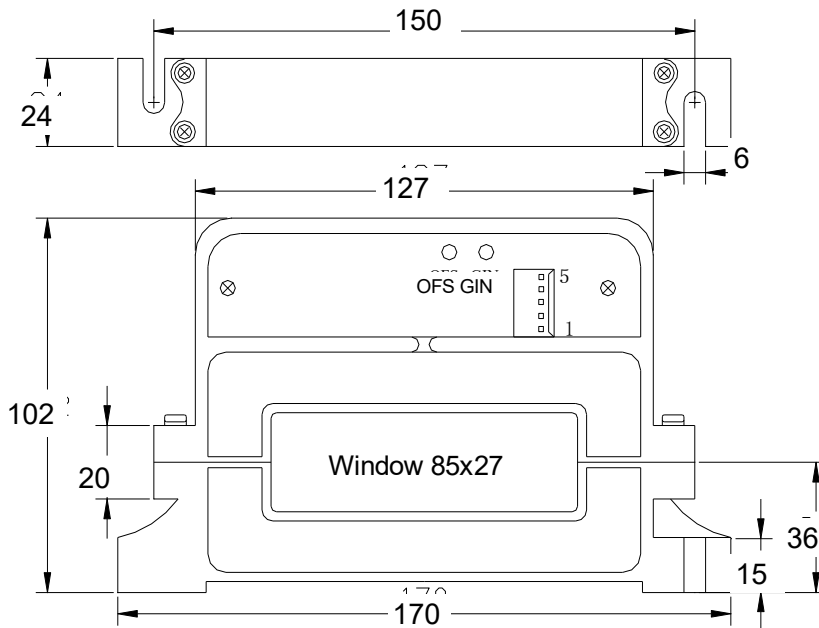
Accuracy and Dynamic performance data

Accuracy at I_r , $T_A = 25^\circ C$ (without offset),
Linearity from 0 to I_r , $T_A = 25^\circ C$,
Electric Offset Voltage, $T_A = 25^\circ C$,
Magnetic Offset Voltage,
Thermal Drift of Offset Voltage,
Thermal drift ($-10^\circ C \sim +50^\circ C$)
Frequency bandwidth (-3 dB):
Response Time at 90% of I_P
Load resistance:
Case Material:
Ambient Operating Temperature,
Ambient Storage Temperature,
Unit weight,

$E < \pm 1.0\% FS$
 $E_L < \pm 0.5\% FS$
 $\pm 25mV$
 $\pm 30mV$
 $V_{ot} < \pm 1.0mV/^\circ C$
T.C. $< \pm 0.1\% /^\circ C$
DC-20kHz
 $t_r \leq 7\mu s$
10k Ω
PBT
 $T_A = -25^\circ C \sim +85^\circ C$
 $T_S = -40^\circ C \sim +100^\circ C$
560g



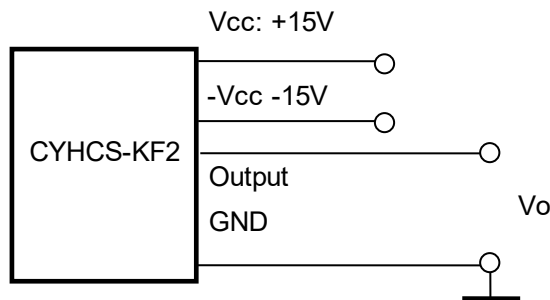
Dimensions (for reference only)



Pin Arrangement

- 1: Vcc +12~15V
- 2: Vcc -12~15V
- 3: Vout
- 4: GND
- 5: NC

GIN: gain adjustment
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 primary input cable is positioned at the center of sensor window and occupies over 50% of the window area.
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.