

## Hall Current Sensor CYHCS007-B



### Electrical Data/Input

| Primary Nominal RMS Current $I_r$ (A) | Primary Current Measuring Range $I_p$ (A) at $V_{cc}=15V$ | Aperture (mm) | Part Number   |
|---------------------------------------|---|---------------|---------------|
| 50                                    | $\pm 150$   | 20x10         | CYHCS-G0500-B |
| 100                                   | $\pm 300$   | 20x10         | CYHCS-G1000-B |
| 200                                   | $\pm 600$   | 20x10         | CYHCS-G2000-B |
| 300                                   | $\pm 900$   | 20x10         | CYHCS-G3000-B |
| 400                                   | $\pm 900$   | 20x10         | CYHCS-G4000-B |
| 500                                   | $\pm 900$   | 20x10         | CYHCS-G5000-B |
| 600                                   | $\pm 900$   | 20x10         | CYHCS-G6000-B |

Supply Voltage  
Current Consumption  
RMS Voltage for 2.5kV AC isolation test, 50/60Hz, 1min,  
Isolation Resistance at 500V DC

$V_{cc} = \pm 15V \pm 5\%$ ,  
 $I_c < 20mA$   
 $V_{is} < 10mA$   
 $R_{is} > 500 M\Omega$

### Electrical Data/Output

Output Voltage at  $I_r$ ,  $T_A=25^\circ C$ :  
Output Impedance:  
Load Resistor:

$V_{out} = 4V$   
 $R_{out} < 150\Omega$   
 $R_L > 10k\Omega$

### Accuracy

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 ( $I_r \rightarrow 0$ )  
Thermal Drift of Offset Voltage,  
Thermal Drift ( $-10^\circ C$  to  $50^\circ C$ ),  
Response Time at 90% of  $I_P$  ( $f=1k$  Hz)  
Frequency Bandwidth (-3dB),

$X < 1.0\%$   
 $E_L < 1.0\%$   
 $V_{oe} < 40mV$   
 $V_{om} < \pm 15mV$   
 $V_{ot} < 2mV/^\circ C$   
T.C.  $< \pm 0.1\% /^\circ C$   
 $t_r < 3\mu s$   
 $f_b = 50$  kHz

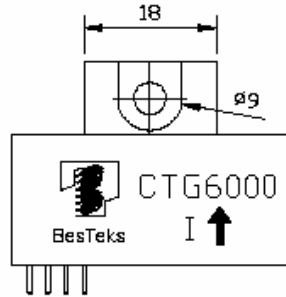
### General Data

Ambient Operating Temperature,  
Ambient Storage Temperature,

$T_A = -10^\circ C \sim +80^\circ C$   
 $T_S = -25^\circ C \sim +85^\circ C$



## PIN Definition and Dimensions



### Terminal Pin Identification

1. V+
2. V-
3. Output
4. Ground

