

Closed Loop Hall Current Sensor CYHCS-B7

This Hall Effect current sensor is based on the closed loop compensating principle and designed with a high galvanic isolation between primary and secondary circuits. 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• Small size and encapsulated• Less power consumption• Current overload capability	<ul style="list-style-type: none">• General Purpose Inverters• AC/DC Variable Speed Drivers• Battery Supplied Applications• Uninterruptible Power Supplies• Switched Mode Power Supplies

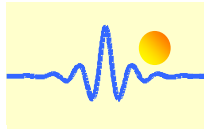
Electrical Data/Input

Part number	Primary Rated Current I_r (A)	Measuring Range I_p (A)	Primary Conductor (mm)	Turns ratio	Internal measuring resistor (Ω)
CYHCS-B7-05A	5	± 15	$\varnothing 0.6$	4:2000	400
CYHCS-B7-10A	10	± 30	$\varnothing 0.8$	3:3000	400
CYHCS-B7-15A	15	± 45	$\varnothing 1.0$	2:3000	400
CYHCS-B7-20A	20	± 60	$\varnothing 1.0$	2:2500	250
CYHCS-B7-25A	25	± 75	$\varnothing 1.4$	1:2500	400
CYHCS-B7-30A	30	± 90	$\varnothing 1.6$	1:3000	400
CYHCS-B7-50A	50	± 150	$\square 2.4 \times 1.6$	1:3125	250
CYHCS-B7-75A	75	± 200	$\square 2.4 \times 1.6$	1:3750	200

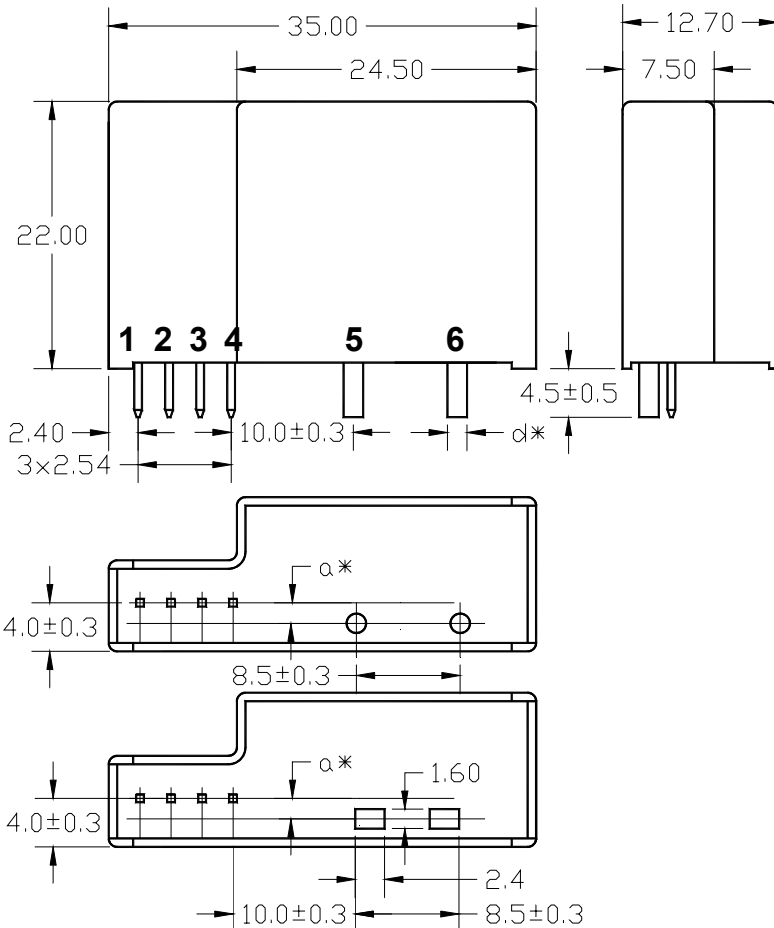
Rated Output Voltage:	$\pm 4V \pm 0.5\%$
Supply Voltage	$\pm 15V \pm 5\%$,
Current Consumption	18mA ± 10 mA
Isolation voltage (50/60Hz, 1min)	5kV
Isolation resistance:	1000M Ω
Accuracy:	0.5%
Linearity:	<0.1% FS
Electric Offset Voltage	± 40 mV
Thermal Drift of Offset Voltage	± 0.5 mV/ $^{\circ}$ C
Thermal Drift of Output Voltage	0.02%/ $^{\circ}$ C
Response Time:	< 1 μ s
Frequency Bandwidth:	DC ~ 150kHz

General Data

Ambient Operating Temperature:	-40 $^{\circ}$ C ~ +85 $^{\circ}$ C
Ambient Storage Temperature:	-40 $^{\circ}$ C ~ +125 $^{\circ}$ C



PIN Definition



1	+15V
2	-15V
3	Output
4	GND
5	Input +
6	Input -



Part number	a (mm)	d (mm)
CYHCS-B7-05A	1.3	Ø 0.6
CYHCS-B7-10A	1.4	Ø 0.8
CYHCS-B7-15A	1.6	Ø 1.0
CYHCS-B7-20A	1.6	Ø 1.0
CYHCS-B7-25A	1.6	Ø 1.4
CYHCS-B7-30A	1.7	Ø 1.6
CYHCS-B7-50A	1.7	□ 2.4x1.6
CYHCS-B7-75A	1.7	□ 2.4x1.6

Operating instructions

1. Connect the pins 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.

Custom Sensors with other input current and output voltage are available