AC/DC Closed Loop Hall Current Sensor CYHCS-B8

This Hall Effect current sensor is based on the 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
• Excellent accuracy • Very good linearity • Small size and encapsulated • Less power consumption • Current overload capability	• **Photovoltaic equipment** • 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-B8-05A	5	± 15	Ø 0.6	5:2500	400
CYHCS-B8-10A	10	± 30	Ø 0.8	3:3000	400
CYHCS-B8-15A	15	± 45	Ø 1.0	2:3000	400
CYHCS-B8-20A	20	± 60	Ø 1.0	2:2500	250
CYHCS-B8-25A	25	± 75	Ø 1.4	1:2500	400
CYHCS-B8-30A	30	± 90	Ø 1.6	1:3000	400
CYHCS-B8-50A	50	± 150	2x□1.6x1.5	1:3125	250

Rated Output Voltage:	±4V±0.5%
Supply Voltage	±15V ± 5%,
Current Consumption (at V_{out}=0V)	20mA+10mA
Isolation voltage (50/60Hz, 1min)	*2.*5kV
Accuracy:	0.5%
Linearity:	<0.1% FS
Electric Offset Voltage	±20mV
Thermal Drift of Offset Voltage,	±0.5mV/°C
Response Time:	< 1µs
Frequency Bandwidth:	DC ~ 150 kHz

General Data

Ambient Operating Temperature:	-25°C ~ +85°C
Ambient Storage Temperature:	-40°C ~ +100°C

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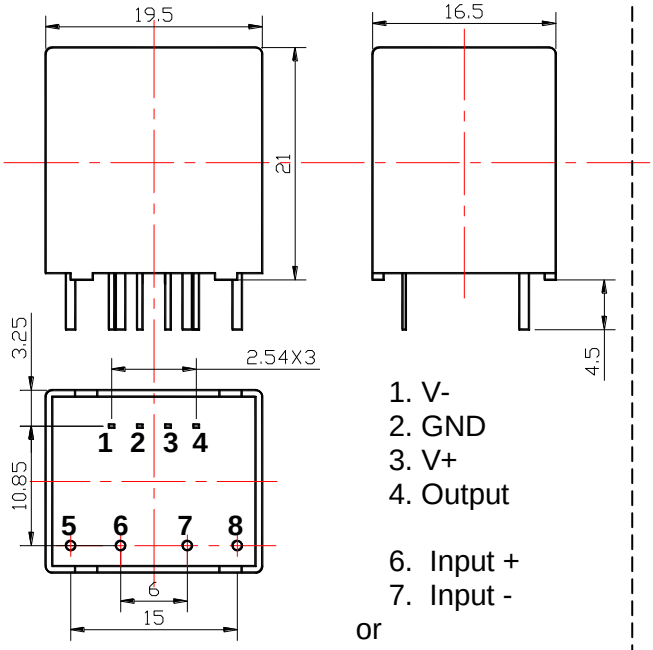
PIN Definition

For Rated Current 5A – 30A



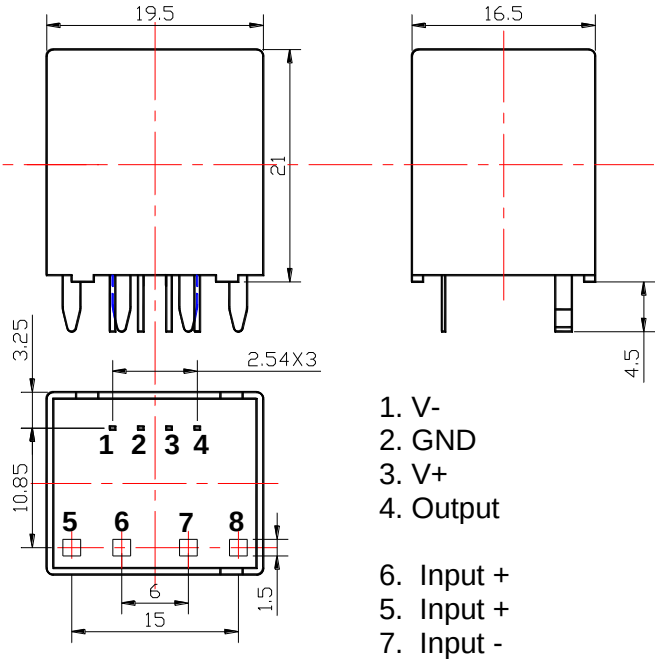
1. V-
2. GND
3. V+
4. Output

6. Input +
7. Input -

or

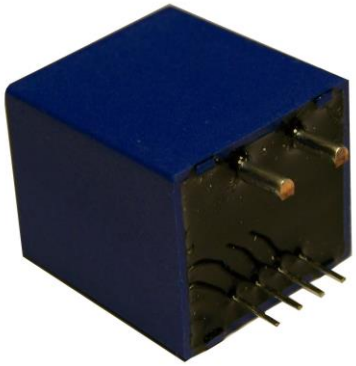
5. Input +
8. Input -

For Rated Current 50A



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

6. Input +
5. Input +
7. Input -
8. Input -



Operating instructions

1. Connect the pins of power source, output respectively and correctly, never make wrong connection for DC current.
2. Temperature of the primary conductor should not exceed 100 °C.

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