CZH-LABS Electronics-Salon

Model: D-1085 series

50A / 100A / 150A Current Sensor Module

Based on ACS758 Hall Effect-Based Linear Current Sensor IC



Features:

- The item of current sensor module provides economical and precise solutions for AC or DC current sensing. Typical applications include motor control, load detection and management, power supply and DC-to-DC converter control, inverter control, and overcurrent fault detection.
- Optimized current range 50A, 100A or 150A version to choose.
- Output voltage proportional to AC or DC currents.
- Panel mount or DIN rail mount types to choose. DIN rail mount version can support width 35 / 32 / 15mm rails.

Electrical Parameters:

- Load Maximum Current: ±50A. ±100A or ±150A three version.
- Load Frequency Bandwidth: DC ~ 120 kHz.
- Isolation Voltage: 4800V AC.
- Sensitivity: 50A version ---- 40mV/A.
 100A version ---- 20mV/A.
 150A version ---- 13.3mV/A.
- Operating Voltage: Regulated 5VDC, or 8 ~ 35VDC.
- Operating Current: 20mA(max).
- Load No Current Output Terminal Voltage: 2.5VDC. *
 - * When the load current IP+ to IP-, sensing output voltage >2.5V. when the load current IP- to IP+, sensing output voltage <2.5V.

For example 100A version: 100A current from IP+ to IP-, output signal is 4.5V. 100A current from IP- to IP+, output signal is 0.5V.

Other more detailed electrical specifications, you can read Allegro ACS758 datasheet.

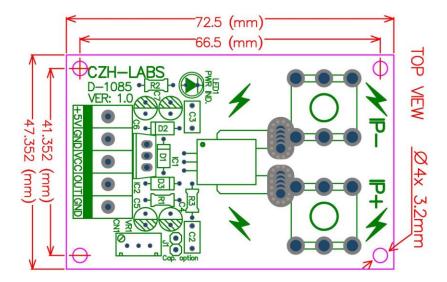
Size:

- Panel mount version: 72.5 x 47.35 x 24mm (L x W x H)
- DIN rail mount version: 83 x 50 x 48mm (L x W x H)

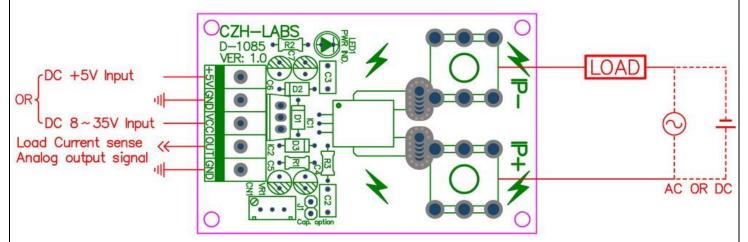
Choose Version List:

- 1. MD-D1085/50A, panel mount, maximum \pm 50A current.
- 2. MD-D1085/100A, panel mount, maximum ± 100 A current.
- 3. MD-D1085/150A, panel mount, maximum \pm 150A current
- 4. MD-D1085T/50A, DIN rail mount, maximum \pm 50A current.
- 5. MD-D1085T/100A, DIN rail mount, maximum ± 100 A current.
- 6. MD-D1085T/150A, DIN rail mount, maximum \pm 150A current.

PCB Dimension:



Terminal Blocks Connection Diagram:



IP+, IP-: connect load.

OUT: sensing signal output.

VCC : Operating voltage power supply input, 8 ~ 35VDC.

Note: if use the mode, +5V terminal cannot connect any other circuit or wires.

+5V: Operating voltage power supply input, 5VDC, the 5VDC must is accurate and regulated voltage.

Note: if use the mode, VCC terminal cannot connect any other circuit or wires.

GND: two GND is output signal and power supply neutral terminal, or you can call it is 0V or Ground. but the connection to the earth is not necessary.

Terminal Block Characteristic:

Wire range 26-12AWG

Strip length 7mm

Screws M2.5

Load Terminal (IP+, IP-):

M6 Screws, thread diameter 6mm, you can connect Metric M6 or USA 1/4 (inside diameter) ring crimp terminal.

Note, the item not include ring crimp terminal.

Circuit Schematic: yiout IP+ 4 PIN IP+ GND 5 -OUT 4 -VCC 3 -GND 2 -+5V 1 -- GND CN1 VCC IP- 5 PIN IP-D1 \(\bigs\) R2 D3 D2 IC1 IN S OUT IC2