

CZH-LABS Electronics-Salon

Model: D-1301 series

AC/DC 5A 20A 30A Current Sensor Module

Based on ACS712 Hall Effect-Based Linear Current Sensor IC



Features:

- The item provides economical and precise solutions for AC or DC current sensing in industrial, commercial, and communications systems. Typical applications include motor control, load detection and management, switched-mode power supplies, and overcurrent fault protection. The device is not intended for automotive applications.
- Optimized current range 5A, 20A or 30A version to choose. Output voltage proportional to AC or DC currents.
- LED indicator for power supply +5V.
- Load terminal block: Pitch 7.62mm/0.3", Strip length 8mm, Screws - M3, steel, Cr3+ Zn plated, Pin header and Cage – Brass, Wire range 26AWG ~ 10AWG / 4mm square, Rated voltage 300V, rated current 30Amp. Power supply and signal terminal block: pitch 5.0mm/0.197", strip length 7mm, screws - M2.5, steel, Cr3+ Zn plated, pin header and cage – brass, Wire range 28AWG ~ 12AWG / 2.5mm square. Rated voltage 300V, rated current 10Amp.
- Slim DIN rail mount carrier, can support width 35 / 32 / 15mm rails.

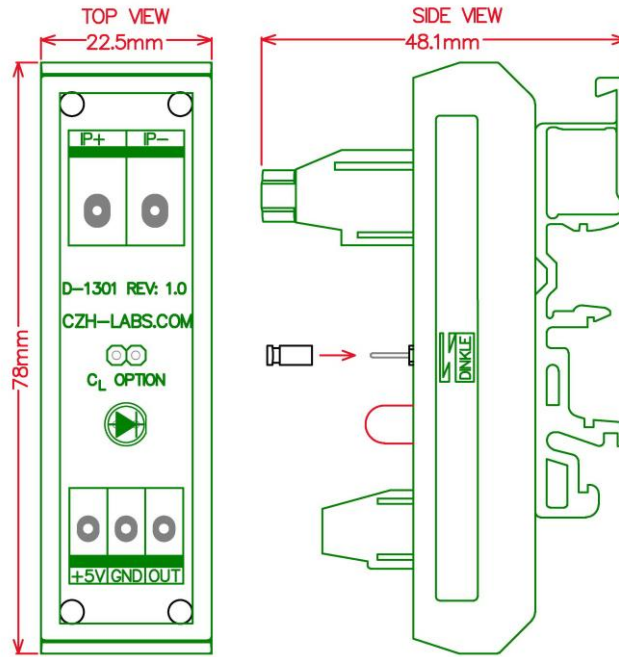
Electrical Parameters:

- Load Maximum Current: $\pm 5A$, $\pm 20A$ or $\pm 30A$ three versions.
 - Load Frequency Bandwidth: DC ~ 80 kHz.
 - Minimum Isolation Voltage: 2.1 kV(RMS).
 - Sensitivity: 5A version ----- 185mV/A.
20A version ---- 100mV/A.
30A version ---- 66mV/A.
 - Operating Voltage: **Regulated 5VDC**.
 - Operating Current: 20mA(max).
 - No-load Signal 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 20A version: 20A current from IP+ to IP-, output signal is 4.5V. 20A current from IP- to IP+, output signal is 0.5V.
- [Other more detailed electrical specifications, you can read Allegro ACS712 datasheet.](#)

Version List:

1. MD-D1301T/5A, DIN rail mount, maximum $\pm 5A$ current.
2. MD-D1301T/20A, DIN rail mount, maximum $\pm 20A$ current.
3. MD-D1301T/30A, DIN rail mount, maximum $\pm 30A$ current.

Dimension:



Terminal Blocks Connection Diagram:

IP+, IP- : Connect load, connected in series with the load.

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

GND: 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.

OUT : Sensing signal voltage output.

CL Pin Jumper: Signal output filter capacitor, it is recommended to remove when measuring the AC load and short circuit when measuring the DC load.

Circuit Schematic:

