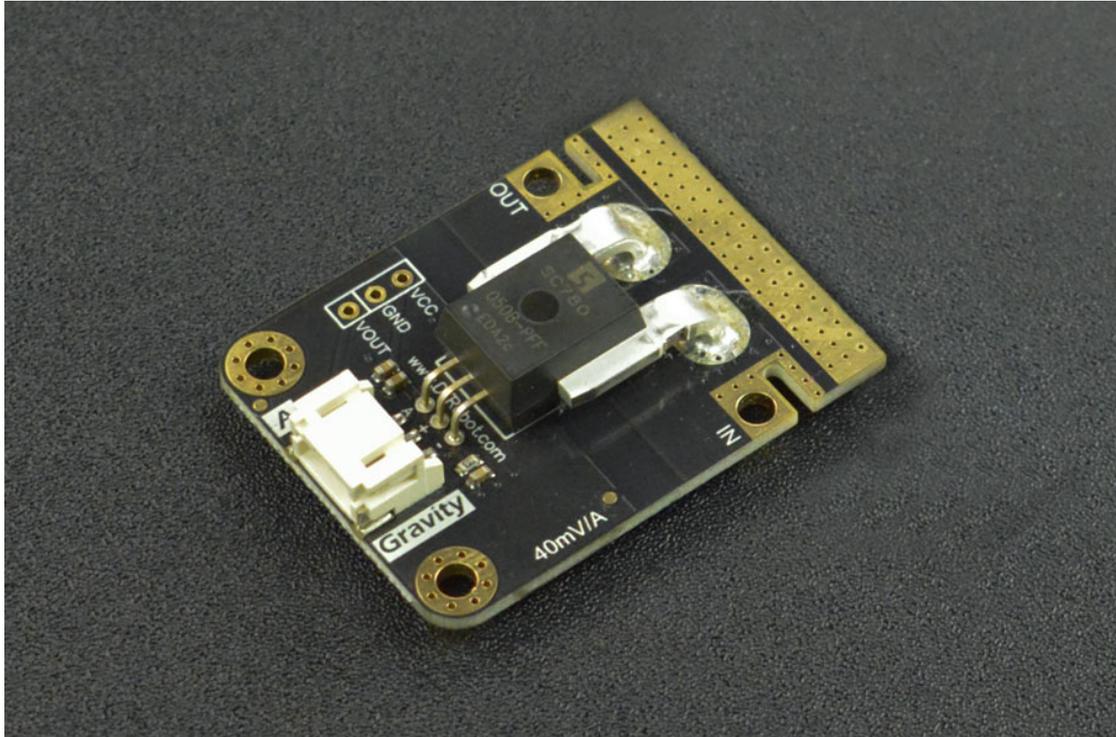


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# Product Technical Note

## Gravity: Analog Current Sensor 50A (AC/DC) V2

SKU:SEN0098-V2



## INTRODUCTION

**This is an updated version.**

Retired Product: [Gravity: Analog 50A Current Sensor \(AC/DC\) V1](#)

Differences: V2 comes with Gravity interface, and chips changed to SC780 from ACS758

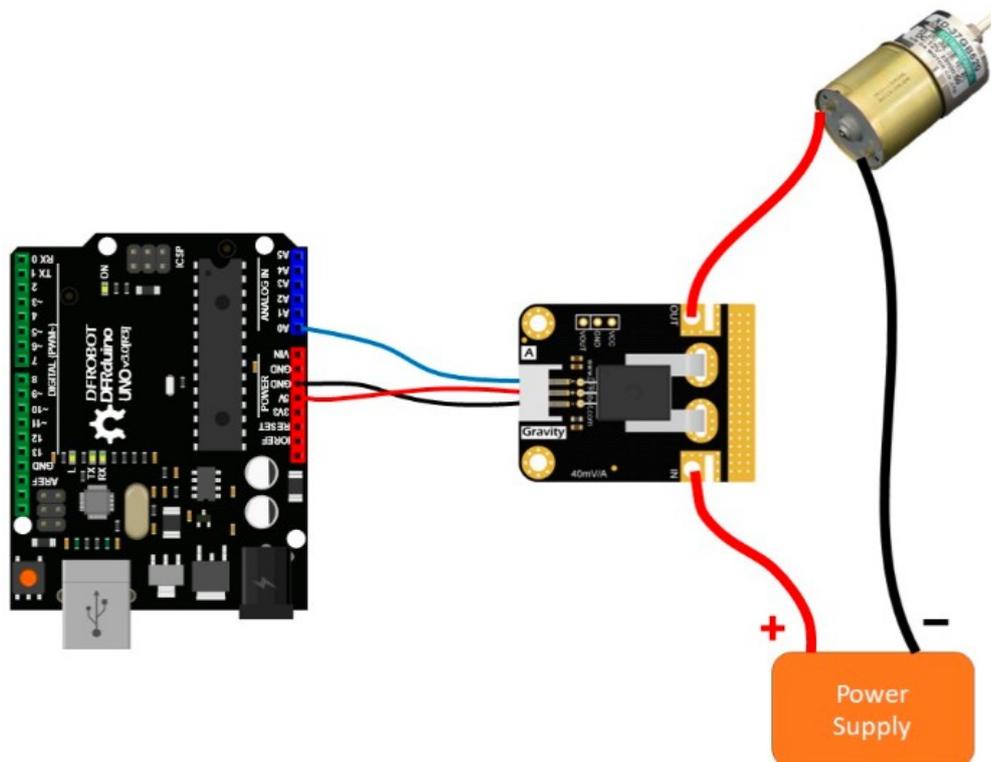
Get this low-power current sensor to monitor your project every second for saving energy or protecting the circuit!

This fully integrated Hall Effect-based linear SC780 current sensor gives precise measurement for both AC and DC currents up to 50A. The thickness of the copper conductor allows the survival of the device at high over-current conditions.

The SC780 can output an analog voltage signal that varies linearly with sensed current.

The input and output are designed as through-hole vias and slots, which allow for soldering thick electrical wires and T-shaped connectors. The polarity of the input power is clearly labeled on the board so users can conveniently solder wires or use metal alligator clips to make the electrical connections.

The current sensor features enhanced heat dissipation and circuit-protection functions, which typically can be applied to scenarios such as motor control, load detection & management, aeromodelling, and robot over-current detection.



Connection Diagram

## FEATURES

- Gravity Interface
- Compatible with T-shaped plug of aeromodelling
- Capable of measuring AC and DC currents
- Hall current sensor
- Isolated current measurement
- The low current impedance of 0.08mΩ
- Low-hysteresis magnetic core
- Interference-free for magnet wire, external magnetic field, and geomagnetic field

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## APPLICATIONS

- Motor Control
- Load Detection & Management
- Aeromodelling and Robot Over-current Detection

## SPECIFICATION

- Operating Voltage: 5V
- Signal Type: Analog
- Withstand Voltage in Measuring: 50V(AC) / 120V(DC)
- Current Measurement Range: -50A to 50A
- Signal Bandwidth: 80kHz
- Response Time: 3.64μs
- Operating Temperature: -40℃ to 125℃
- Dimension: 32×42mm/1.26×1.65"

## DOCUMENTS

- [Product wiki](#)
- [SC780 Datasheet](#)

## SHIPPING LIST

- Gravity: Analog Current Sensor 50A (AC/DC) ×1
- Gravity 3P Connector ×1