# SAC-150 AC Flexible Current Coil

## Rogowski Current Coil with S9.1 Integrator

**2000A | 333mV / 3V | Class 0.5S**

This specification defines the electrical characteristics, dimensions, wiring and construction requirements of the SAC-150 flexible current coil and its S9.1 integrator.

### Product overview

| Item | Specification |
|---|---|
| Product | Flexible current coil (Rogowski) |
| Model | SAC-150 |
| Part number | SAC-150-2000A-2.5M |
| Integrator | S9.1 |
| Rated input | 2000A (customizable) |
| Rated output | 333mV / 3V AC rms |
| Accuracy class | 0.5S |
| Rated frequency | 50Hz / 60Hz |
| Bandwidth | 10Hz ~ 20kHz (±3dB) |
| Output connector | RJ12 |
| Power supply | 5V DC |
| Ingress protection | IP54 |
| Revision | V0 |
| Issue date | 2026-10-30 |

### Advantages

- Ultra-light weight, compact size
- High reading accuracy, Class 0.5S
- Ultra-low power consumption (70mW)
- Personalized customization available
- Related products: SAC series
- No secondary open-circuit hazard (Rogowski coil)

### Applications

- Test equipment and laboratory instruments
- Power monitoring and analysis
- Harmonic and transient monitoring
- Replacement of traditional electricity meters and integration with monitoring systems
- High current measurement

### Change record

| Change record | Details |
|---|---|
| Version | V0 |
| Date | 2026-10-30 |
| Description | Initial issue |
| Prepared by | |
| Reviewed by | |
| Approved by | |

## Technical specifications

| Category | Parameter | Value |
|---|---|---|
| Electrical | Rated input | 2000A (customizable) |
| | Rated output | 333mV / 3V AC rms |
| | Maximum output (overload) | 4.5V AC pp |
| | Power consumption | 70mW |
| | Bandwidth | 10Hz ~ 20kHz (±3dB) |
| | Rated frequency | 50Hz / 60Hz |
| | Accuracy class | 0.5S |
| | Phase error | ≤0.5° |
| | Power supply | 5V DC |
| | Zero drift (0A output) | ≤1mV |
| | Maximum rated voltage to earth | AC600V (CAT IV), AC1000V (CAT III) |
| | Temperature drift | ≤100ppm/℃ |
| | AC withstand voltage | AC 3kV rms (1 min) |
| Environment | Operating temperature | -20℃ ~ +70℃ |
| | Relative humidity | ≤80% RH non-condensing |
| | Altitude | ≤4000 m |
| | Ingress protection | IP54 (EN 60529) |
| Mechanical | Output connector | RJ12 |
| | Housing flame rating | UL94 V-0 |
| | Environmental compliance | RoHS 2.0 |

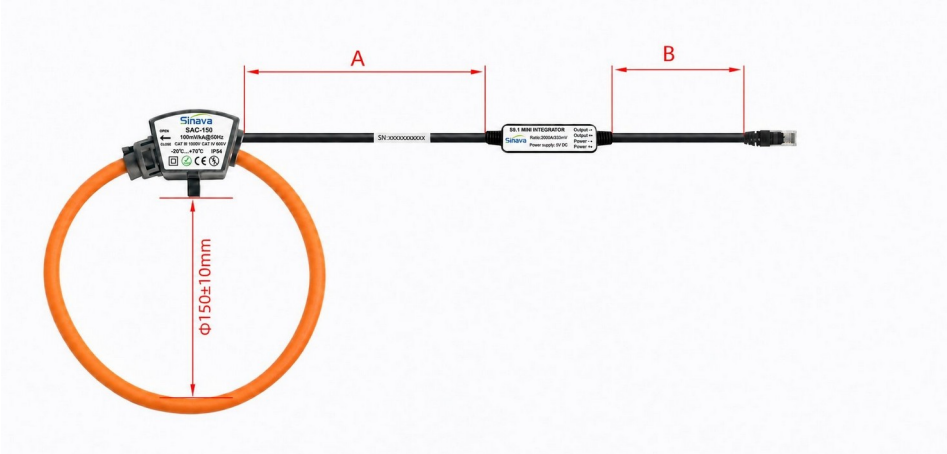
## Product description

The SAC-150 is a flexible Rogowski current coil supplied with the S9.1 integrator. It features a rated input of 2000A (customizable) and an output of 333mV / 3V AC rms over a 10Hz ~ 20kHz bandwidth (±3dB), with Class 0.5S accuracy, a phase error of ≤0.5° and a fast response of ≤1ms. The integrator is powered by 5V DC and consumes only 70mW. Within the operating range of -20℃ to +70℃, the zero drift is ≤1mV and the temperature drift is ≤100ppm/℃, ensuring stable measurement in industrial environments. The coil is rated IP54 and its housing is flame-retardant UL94 V-0. With its light weight, compact size and RJ12 output, the SAC-150 is a cost-effective replacement for traditional CTs in electricity meters, power meters and industrial monitoring.

### What is a Rogowski coil?

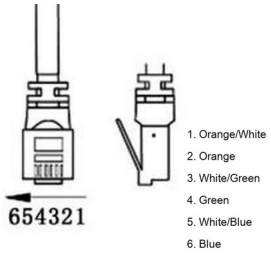
Rogowski coil, also known as current measurement coil or differential current transformer, is a circular coil uniformly wound on a non-ferromagnetic material. The output signal is the differential of the current over time. By integrating the output voltage signal through a circuit, the output current can be truly restored. Compared with traditional transformers with iron cores, Rogowski coils have the characteristics of real-time current measurement, fast response speed, no saturation, and almost no phase error.

## Dimensions




A: 2500 ± 50 mm | B: 130 ± 10 mm

## Wiring and pin definition




| Pin | Color | Definition |
|---|---|---|
| 1 | Orange/White | Output - |
| 2 | Orange | Output + |
| 3 | White/Green | Not connected |
| 4 | Green | Power supply + |
| 5 | White/Blue | Power supply - |
| 6 | Blue | Not connected |

RJ12 connector; pins 3 and 6 are not connected.

## Safety description

In order to ensure the safe operation of the current coil and the correct use of all features and functions, please read the following instructions carefully. The current coil can only be used within the appropriate parameter range to ensure safety. This parameter information can be found in the product manual. You can download the latest product manuals from our company website www.sinavapower.com.

### Danger warning!

Ignoring this warning can lead to serious danger! Current coils can only be installed and operated by professionals who have received relevant training, and the installation or operation process should comply with the corresponding national safety regulations and the operating instructions of the relevant manufacturers, and be used in electrical or electronic equipment that meets parameter standards and safety requirements.

### Electric shock hazard warning!

When operating the current coil, some parts of the module may carry dangerous voltages. The user should ensure that all necessary measures are taken to prevent electric shock. A current coil is a built-in device that contains conductive parts that are not to be touched after installation. A protective cover or additional insulation barrier may be required. When equipment failure requires repair, unless it is confirmed that there are no dangerous live modules in or near this power system, repair should be carried out after the main power supply is disconnected.

### Attention!

The safe and trouble-free operation of the coil can only be ensured under the condition of correct transportation, storage, installation, and careful operation and maintenance. Do not damage the coil. Forceful twisting, piercing, excessive squeezing, excessive bending, and other behaviors will greatly reduce the accuracy of the equipment.

