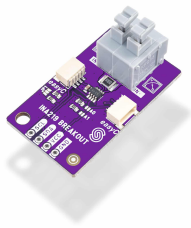


## PRODUCT DATASHEET



# Voltage & Current Sensor INA219 Breakout

333066

The INA219 Voltage & Current Sensor Breakout offers precise power monitoring with I2C interface, measuring up to  $\pm 3.2\text{A}$  and 26V.

Full product documentation, files and tutorials: [solde.red/333066](https://solde.red/333066)

## CORE ATTRIBUTES

SKU 333066

WEIGHT 8 g

BARCODE 732388670802

## DESCRIPTION

Unlock precise power monitoring for your electronics projects with the **INA219 Voltage & Current Sensor Breakout**. This device accurately measures current, voltage, and power, providing data via a simple **I2C interface**. Designed for seamless integration, it's perfect for Arduino, Raspberry Pi, and other microcontroller-based systems, allowing you to track energy consumption, monitor battery life, or implement power management solutions with ease.

Featuring a 0.1-ohm shunt resistor, the INA219 breakout can measure currents up to  **$\pm 3.2\text{A}$**  and voltages up to **26V**, offering bidirectional measurement capabilities. Its design includes a jumper for I2C address modification, enabling multiple sensors on a single microcontroller bus. Whether you're a hobbyist or a professional, the INA219 provides reliable and accurate data, making it a tool for any project requiring detailed electrical parameter insights.

Beyond its technical capabilities, the INA219 breakout emphasizes user-friendliness and open-source principles. With documentation and complimentary technical support, you'll have all the resources needed to get started quickly. Its qwiic compatibility further simplifies connections, allowing for rapid prototyping without complex wiring.

## TECHNICAL DETAILS

- **Power supply voltage:** 3V - 5V
- **Maximum measuring voltage:** 26V
- **Maximum measuring current:** 3.2A
- **ADC:** 12-bit
- **Dimensions:** 38 × 22 mm / 1.5 × 0.9 inch

## SPECIFICATIONS

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| INTERFACE              | I2C                                                         |
| QWIIC COMPATIBLE       | Yes                                                         |
| I2C ADDRESS DEFAULT    | 0x40                                                        |
| I2C ADDRESS CHANGEABLE | Yes                                                         |
| BREADBOARD COMPATIBLE  | Yes                                                         |
| MEASUREMENT TYPES      | Voltage, Current                                            |
| MEASUREMENT RANGE      | Bus voltage up to 26 V; Current up to 3.2 A (0.1 ohm shunt) |
| IC PART NUMBER         | INA219                                                      |
| SUPPLY VOLTAGE MIN V   | 3                                                           |
| SUPPLY VOLTAGE MAX V   | 5                                                           |
| LOGIC LEVEL            | 3V3 Only                                                    |

## LINKS

|                               |                                                                                                                                                                                           |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arduino Library               | <a href="https://github.com/SolderedElectronics/Soldered-INA219-Current-Sensor-Arduino-Library">https://github.com/SolderedElectronics/Soldered-INA219-Current-Sensor-Arduino-Library</a> |
| Full Documentation            | <a href="https://docs.soldered.com/ina219/overview/">https://docs.soldered.com/ina219/overview/</a>                                                                                       |
| Arduino: Get Started          | <a href="https://docs.soldered.com/ina219/arduino/getting-started/">https://docs.soldered.com/ina219/arduino/getting-started/</a>                                                         |
| Hardware Details              | <a href="https://docs.soldered.com/ina219/hardware/">https://docs.soldered.com/ina219/hardware/</a>                                                                                       |
| Arduino Library Documentation | <a href="https://docs.soldered.com/ina219/arduino/examples/">https://docs.soldered.com/ina219/arduino/examples/</a>                                                                       |
| Pinout                        | <a href="https://cms.soldered.com/products/333066/media/333066_pinout-png_1a1002.svg">https://cms.soldered.com/products/333066/media/333066_pinout-png_1a1002.svg</a>                     |

## GALLERY

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