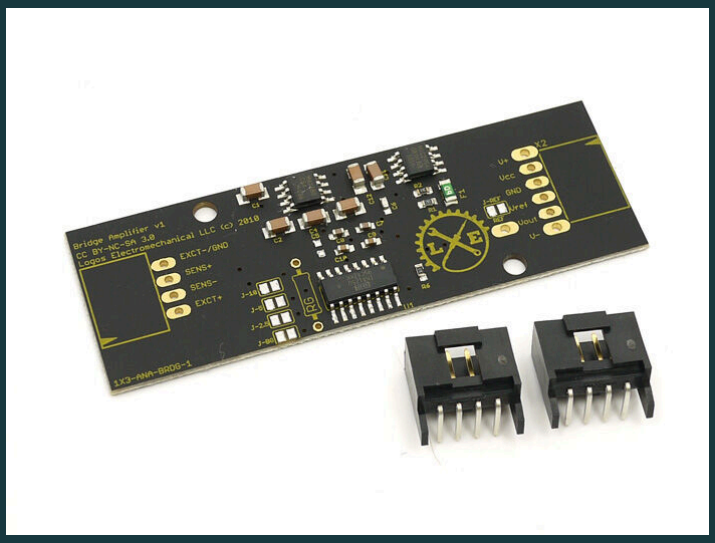
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INDUSTRIAL PRODUCT DATASHEET

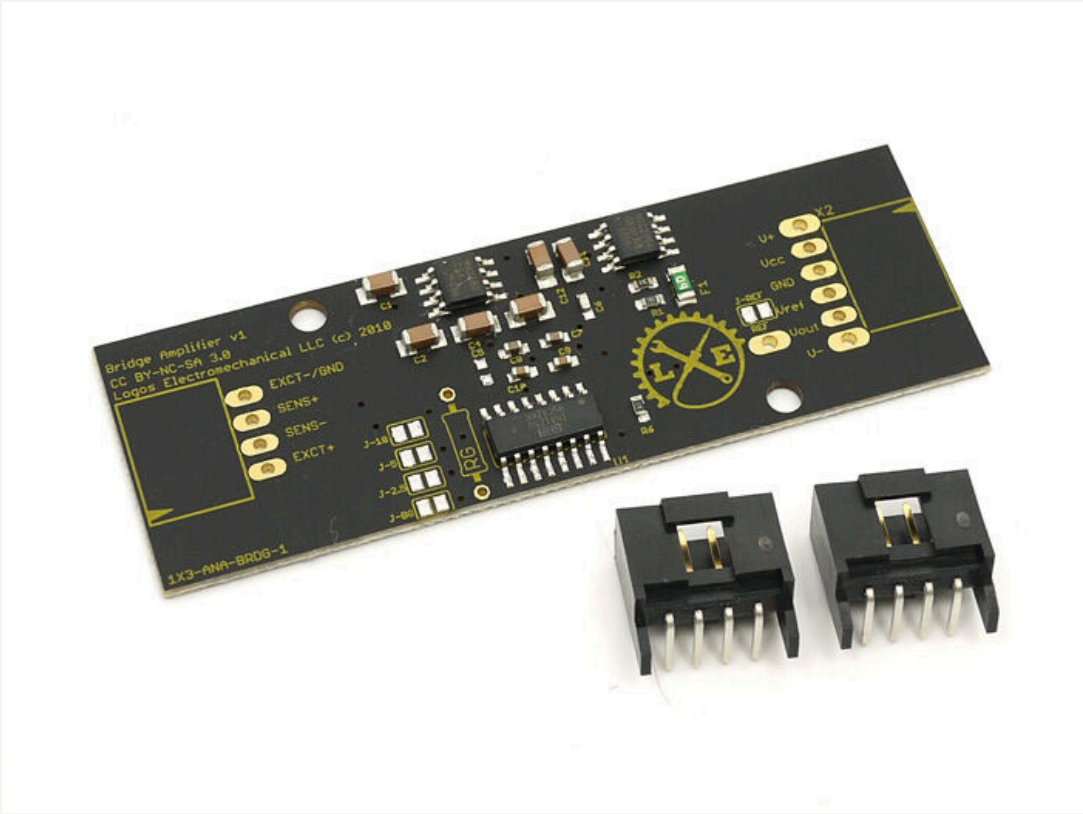
Integrated Signal Conditioner & Amplifier Kit v1

Integrated Signal Conditioner & Amplifier Kit v1: Precision excitation and programmable gain amplifier with selectable excitation and ±10V bipolar output.

SKU	UPDATED	PRICE
TES31147M	2024-08-09 02:12:56	$46.99(Excl. VAT)



Overview



The Integrated Signal Conditioner & Amplifier Kit v1 provides precision excitation and signal conditioning for bridge sensors, including load cells, pressure transducers, and strain gauges. It features jumper-selectable excitation voltages (1.24V, 2.5V, 5V, 10V), resistor-programmable gain (4 to 10,000), and an onboard charge pump for ±10V bipolar output from a 6-30VDC single-ended supply.

Key Features

A bridge circuit is a common arrangement in a variety of different measurement applications, but particularly in force and pressure transducers. The output of these sensor types is proportional to the excitation voltage applied, and is measured in millivolts. Signal conditioning and interfacing these sensors with a microcontroller or a data acquisition system requires a precision voltage source and a precision high gain amplifier stage. This board provides both in a convenient package. Gain is programmed with a single resistor. Excitation is jumper selectable from 1.27V to 10V.

In addition to force and pressure transducers, this bridge circuit can be used with strain gauges, thermistors, RTDs, or any other bridge or resistive type sensor. It can also be used as a precision differential amplifier simply by neglecting to connect the excitation. The versatility of this module is further increased by onboard charge pump that allows it to develop ±10V bipolar output from a 6V to 30V single-ended voltage supply.

Key Features

- Precision excitation jumper selectable between 1.24V, 2.5V, 5V or 10V
- Resistor programmable gain from 4 to 10,000
- ±10V bipolar output
- 6-30VDC single ended power supply
- Resistor adjustment of offset
- Sample Applications
- Excitation and signal conditioning for load cells and millivolt output (4 wire) pressure transducers.
- Strain gauges, either in bridge configuration or with external resistors.
- RTDs and thermistors, with external bridge resistors
- Any differential amplifier or instrumentation amplifier application

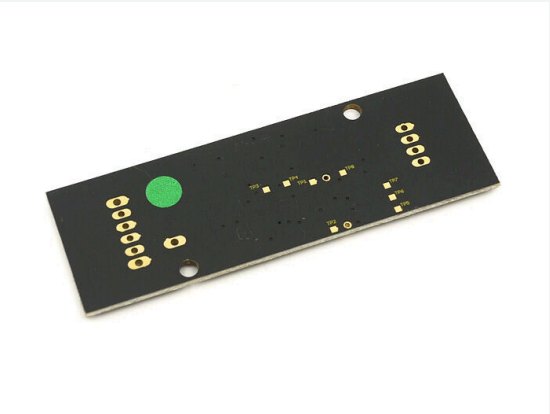
Documentation

- **Manual (PDF)**
- **Schematic (PDF)**
- **Schematic (Eagle)**
- **Layout (Eagle)**

Accessories

- Connector kit

Product Gallery



Resource Links

- https://www.seeedstudio.com/Integrated-Signal-Conditioner-Amplifier-Kit-v1-p-791.html

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