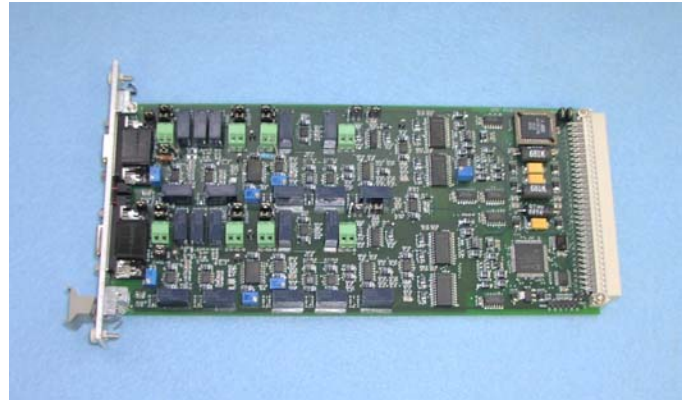


Dual Channel, High Performance Strain Gauge (Bridge) Conditioner

FEATURES

- All functions including gain, offset null, excitation voltage, digital shunt cal, full/half/quarter bridge configuration are computer controlled
- LabView configuration software supplied
- Programmable Gain in 1,2,5 10 sequence
- Programmable Excitation Voltage/ Current
- Sense connections for maximum accuracy
- High frequency (600kHz) response
- 16 bit dynamic range for high resolution
- Over range indicator on each channel
- High performance/Low cost per channel
- Rugged 3U rack mount design



DESCRIPTION

The SAT-SSC2 is a 3U high, fully programmable signal conditioning card for bridge type sensors. All major functions are under computer control for ease of use and flexibility. It can interface to full-bridge, half-bridge or quarter-bridge transducers with a nominal resistance of 100 Ohm to 10k Ohm. The board has locations for bridge-completion resistors allowing the use of low cost half-bridge or quarter-bridge transducers whilst shunt calibration is under computer control and includes separate shunt calibration leads for maximum accuracy.

Strain gauge excitation is provided from the module by a very stable programmable excitation source. The excitation supply is fully programmable from 1V to 10 V in 2.5mV steps, with current capability up to 100mA. The excitation source has sense wires for maximum accuracy, particularly in applications with long cable runs. Automatic bridge balancing (offset null), under computer control is supplied as standard.

Gain is programmable between 1 and 10,000 in a 1, 2, 5, 10 sequence and the high performance front-end amplifier maintains excellent AC and DC performance even at high gain. The 600kHz bandwidth allows measurement of high-speed processes such as vibration analysis and for computer controlled applications, an over range indicator is provided on each channel. The indicator is set whenever a channel is over-driven making it easy to identify erroneous channels in high channel

count systems.

For ease of use, inputs are via 15-pin 'D' type connectors with provision for shielded cabling to ensure maximum accuracy, especially in long cable runs.

The SAT-SSC2 can be supplied on its own, or assembled in a rack mount system complete with accessories such as output connector panels and cable assemblies to allow easy connection to data acquisition systems.

SOFTWARE SUPPORT

Scalar Acquisition Technology products are supported by configuration software written in LabView. All major board functionality is under computer control for ease of use and flexibility. In addition, this approach makes it easy to integrate the SAT-SSC2 with existing data acquisition solutions.

DATA ACQUISITION SUPPORT

Scalar Acquisition Technology can integrate the SAT-SSC2 with its range of data acquisition systems to provide complete 'sensor to data' system solutions, including user-friendly operation via a graphical user interface. Please contact the factory for further information.