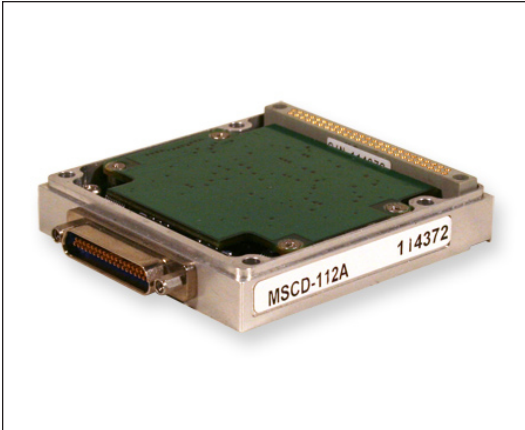


10-Channel Bridge Conditioner and 2-Channel RJC Temperature Transducer Module with Programmable Gain & Voltage Excitation



Applications

- Flight test instrumentation
- Factory automation and process control
- Strain gages, load cells, pressure transducers, ...
- Research measurements and experiments

Features

- 10-channel (bridge, potentiometer, etc.) and 2-channel temperature transducer (RJC1 and RJC2) module
- Programmable voltage excitation
- Compatible with MEDAU/MCDAU-2000 system
- Software programmable gain and offset per channel
- $\pm 0.5\%$ system accuracy
- 1-pole pre-sample filter
- Zero and voltage substitution calibration
- 1,000 kilohms input impedance
- $\pm 35\text{VDC}$ over-voltage protection
- Microsoft Windows application software included

Description

The MSCD-112A-7 is a 10-channel (plus 2 RJC input) signal conditioning module for use in TTC's MEDAU-2000 or MCDAU-2000 series products. The module provides constant voltage excitation and signal conditioning for 4-arm bridge inputs (Channels 1-10) and constant voltage excitation for temperature transducer inputs (RJC1 and RJC2). Each channel provides calibration, programmable gain, programmable offset and one-pole pre-sample filtering with factory set cutoff frequency. The conditioned analog signal is digitized at up to 12-bit resolution for transmission in the system PCM output format. RJC1 and RJC2 produce a voltage between 1-2V at the output of a unity gain (Primary Gain of 1) instrumentation amplifier; the output is dependent on the AD590 device for the temperature range -50°C to $+125^{\circ}\text{C}$. The count measurement range is defined to be 1750 counts for a Secondary Gain of 5 with 4000 counts being full-scale. This defines the volts per count to be 0.0025V and 10 counts per degree C in the stated temperature range for overall gain of 5.

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Specifications subject to change without notice.



Teletronics Technology Corporation

15 Terry Drive, Newtown, PA 18940

phone: 267.352.2020 fax: 267.352.2021 Sales@ttcdas.com

www.ttcdas.com