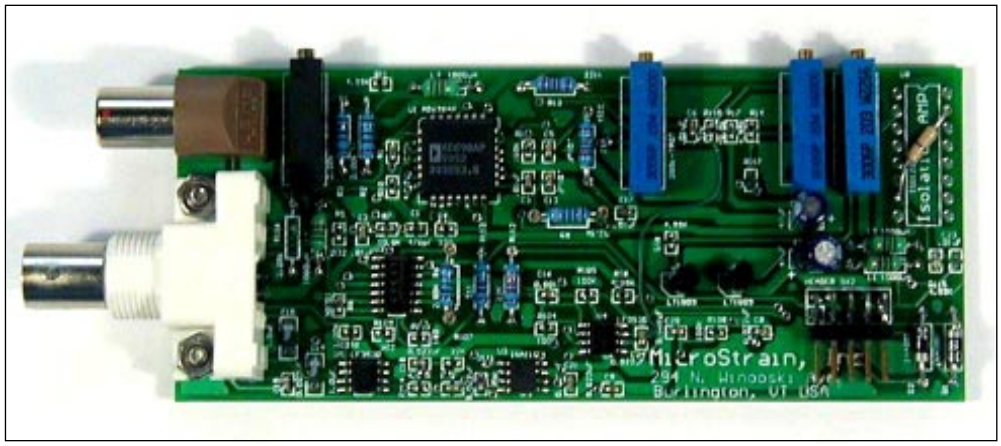
DEMOD 1

Carrier Amplifier - Oscillator/Demodulator for DVRT's®, Inductive, Capacitive, & Resistive Bridge Circuits



Designed for ease of use & general versatility, this printed circuit card provides complete conditioning of MicroStrain's DVRT's, AIFP's, and FAS sensors.

Each card contains all the requisite connectors to facilitate plug & play use, incuding: active, jumper selectable low pass filters, input supply line filters with reverse input protection, and output line buffers.

DEMOD 1 cards provide high level output from a wide variety of bridge type transducers, including capacitive gap , inductive proximity, electrolytic tilt sensors. Resistive strain gauges may also be conditioned, with the DEMOD's sinewave excitation and sychronous demodulator providing excellent noise rejection and elimination of thermally induced potentials.

Smart MB-STD w/ digital display

Designed to plug directly into MicroStrain's enclosure & power supply motherboard system, DEMOD cards are a snap to install. Four and eight channel enclosures are available. Smart MB-STD's are also available, with serial (RS-232) outputs, for direct interface to personal computers. Optional backlit liquid crystal digital displays provide a direct readout in physical units.

To place an order, or for more information, call us today at 1 800-449-DVRT.

MicroStrain®

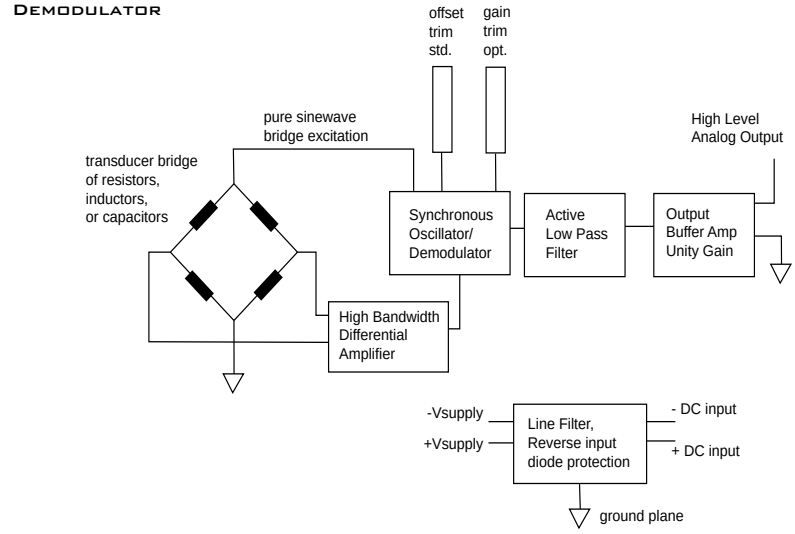
How it works

Operating from a DC power supply, the DEMOD1 filters incoming transients from the line voltage, and supplies a pure sinewave excitation to the transducer's bridge. This excitation is used to measure minute impedance changes of the sensing elements.

A differential amplifier raises AC input voltages in order to provide optimum demodulator performance. The output is filtered and buffered to provide clean, high level signals over coaxial cable.

DEMOD1

SYNCHRONOUS OSCILLATOR/ DEMODULATOR



ELECTRICAL & MECHANICAL SPECIFICATIONS

- Sensor types — *inductive, capacitive, resistive (ideal for DVRT®'s & AIFP®'s)*
- Excitation — *regulated sinewave, 70 KHz typical*
- Demodulation — *synchronous, DC output*
- Output — *+/- 4.5 volts typical*
- Gain — *factory adjustable 10 - 10,000*
- Low pass filter — *2 pole, active Butterworth, 3 dB down @ 1 KHz standard Factory adjustable 10 Hz-20 kHz*
- Supply voltage — *+/- 6.5 volts min., +/- 16 volts max*
- Supply current — *30 milliamps per rail*
- Warm-up time — *15 minutes recommended*
- Operating temp. — *-40 to 85 degrees Celsius*
- PC Board size — *12 mm x 48 mm x 20 mm (thick)*
- Connectors — *10 pin, .1" pitch header (power, ground) Lemo 4 pin receptacle (bridge inputs) BNC (analog output)*
- Trimmers — *offset (std.), gain (optional)*

MicroStrain®

294 North Winooski Avenue, Burlington Vermont USA 05401
Phone: 800 449 DVRT (3878) or 802-862-6629
Fax 802-863-4093
e-mail: info@microstrain.com