CellMite® Quad AC/DC
Mixed LVDT and Force Measurement Digital Signal Conditioner

Features:

- Simultaneous operation of all LVDT and strain gage channels
- Direct to PC with RS232 Data
- Data logging with multiple recording profiles
- Data compatible with Excel
- Automatic and manual triggering
- 2-pt, mV/V calibration
- 6-pt Linearization Calibration
- Dual Scalable $\pm$10V Analog Outputs, One for LVDTs and One for Strain Gages
- 16-Bit Analog Output
- 24-Bit Resolution

- Multiple Filter Selections
- Storage for Three Calibrated LVDT Transducers and Three Calibrated Strain Gage Transducers
- Selectable Sensor Gains
- Remote Sense Excitation
- Addressable for Serial Network
- Tare, Peak, Valley
- Unit Support: In, Cm, mm, %, Lb, Kg, N, mV/V, User Defined
- Power Supplies Internally Isolated
- CellView Multi-Unit GUI Option
- CellView Software Drivers option

The **Model 4336** CellMite® Quad AC/DC is a 4-channel intelligent digital signal conditioner that connects directly to two AC LVDT transducers and two DC strain gage force transducers and provides direct digital data input into the serial port of a standard PC. Precision AC sine wave excitation voltages to power the LVDT's and precision DC excitation voltages to power the force strain gage bridges are generated by the unit. Internal signal conditioning with filtering is applied to all channels and the digitized data is sent in serial form to a standard PC.
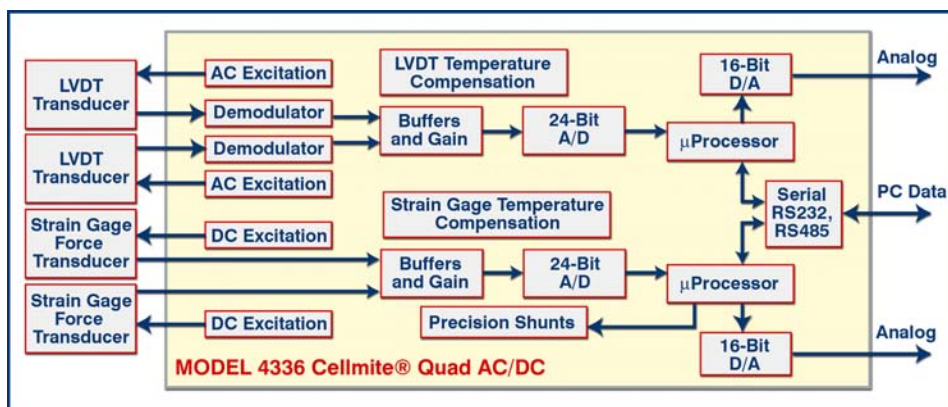
The **Model 4336** also simultaneously generates two +/-10V analog outputs; one that tracks a user selected LVDT channel and one that tracks a user specified force channel. When used in combination with the CellView Multi-Unit GUI software, a complete data acquisition system is formed with synchronized data storage of all channels in an Excel compatible file, and real-time simultaneous viewing of all channels utilizing up to 8 user specified software displays.

The **Model 4336** CellMite® Quad AC/DC independently compensates each channel's transducer nonlinearities using its integrated 6-point calibration capability not found in standard signal conditioners. The unit has full range tare capability for the LVDT and strain gage force channels, and dual internal precision shunt resistors for the force channels.

Model 4336 Cellmite® Quad AC/DC

The **Model 4336** features include nonvolatile memory for parameter and calibration storage, the ability to select between 3 stored LVDT calibrations for the two LVDT channels, and the ability to select between 3 stored force transducers for the two strain gage force channels. Also featured are multi-point and mV/V calibration, remote sense excitation, 24-bit internal resolution with 16-bit analog output, and RS232 serial data output that is compatible with off-the-shelf serial to USB converter cables.

CellMite® Quad AC/DC   Specifications:

Excitation:
LVDT
Voltage: 3kHz, 3Vrms (std)
Sensors: LVDT's AC Bridges

STRAIN GAGE
Voltage: 5VDC
Sensors: 350 ⍵ Bridge nominal

Operation:
LVDT
Internal Resolution: 24-bit.
Input Range: software adjustable from <10mV/V to >100mV/V
Error: 0.05%
Precision Shunt 60K⍵ for bridge applications

STRAIN GAGE
Internal Resolution: 24-bit.
Input Range: ±5.5mV/V
Error: 0.01%
Precision Shunt 60K⍵

CONVERSION RATE
60/sec single channel
1/sec all channels simultaneously

DATA LOGGING
Channels: All, simultaneously
Format: Excel compatible file
Recording rate: Variable, user selectable
Triggering: Manual, automatic, delayed

Outputs:
ANALOG:
LVDT: 16-bit, Scalable, ±10V.
Strain Gage: 16-bit, Scalable, ±10V.
SERIAL DATA: Multi-drop RS232, RS485

Power
INCLUDED ADAPTER: 5 VDC, 1 A, 110/240VAC, 60/50 Hz.
OPTIONAL ADAPTER: 12, 24, 48 VDC

Mechanical:
SIZE: 7.5" x 5.5" x 1.5"
WEIGHT: 1.12 Lbs.

CellView Multi-Unit GUI Software Option (Cat No. 514424)

Features:

- Turnkey simultaneous data acquisition system CellMite® Quad AC/DC unit

- Supports mix and match usage of LVDT and strain gage channels

- Ability to define 8 simultaneous data displays from multiple channels

- Save data, calibration, and sensor test information to Excel spreadsheets.

- Guide user through sensor calibrations

- Ability to select and name individual LVDT and strain gage channel sets

- Tare and reset peak and valley for the sensors

- Save/Load units and sensor setup information

- Set output data with user defined 5th order polynomial function

- Setup a test to start and/or stop automatically with user selectable trigger events and delayed triggering

- Multi sample rate data acquisition via user definable data logging profile

- Statistics and comments embedded in data log files

- User programmable analog output voltages for LVDT and strain gage sensor sets

- Units of In, Cm, mm, %, Lb, Kg, mV/V, and User Defined