Electro Standards Laboratories

ADVANCED SYSTEMS DESIGN & SERVICES

SPECIFICATIONS

CellMite® Remote Slave Model 4329 (Cat. No. 304329)
CellMite® Master Model 4329M (Cat. No. 302329)
Optional Battery Pack - Model 4340 (Cat No. 306340)
CellView Lite GUI Software (Cat. No. 514569)

CellMite® Model 4329M Master and Model 4329 Slave Wireless Intelligent Digital Signal Conditioner System

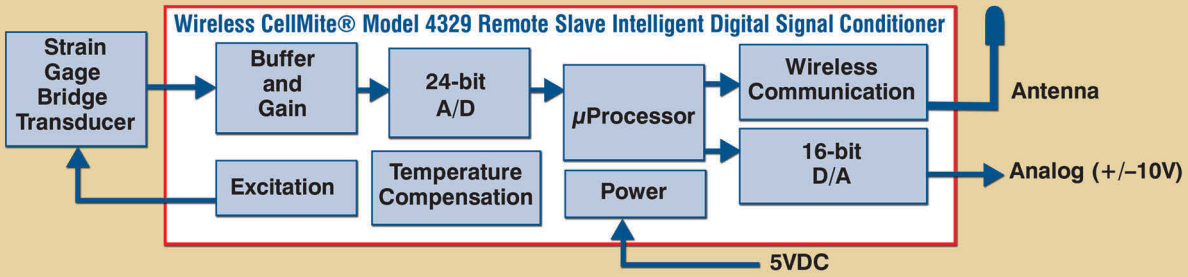
- **Network up to 8 Load Cell, Strain Gage, Bridge Transducer Devices and Transmit to Master CellMite® and Laptop Computer.**
- **Ideally suited for the in-situ transducer conditioning and distributed process measurements.**

INTRODUCTION

The Models 4329M and 4329 comprise a Wireless CellMite® System; a versatile precision system of instruments intended for the digital readout of strain gage sensors, such as load cells and extensometers, using wireless communications between the CellMite® and the host PC. The Wireless CellMite® System can be used with any member of the CellView family of Graphical User Interface software including CellView LITE, CellView Multi-Display, and the CellView Driver, a C-Based API that programmers can use to write their own user interface. CellMites® can also be used optionally with an analog digital display that connects directly to the unit and/or the Model 4340 CellMite® Battery Pack (ESL p/n 306340).

FEATURES:

- Communications to and from the Remote, Wireless Slave (Model 4329), via the Wireless Master (Model 4329M) connected to the host PC RS232 serial port. The Wireless Slave also allows for direct serial connection to the host PC.
- Remote, Wireless Slave can be powered by the optional Model 4340 Battery Pack (ESL p/n 306340).
- Model 4329 Remote Slave connects directly to a standard strain gage, load cell, extensometer, bridge or pressure transducer.
- The CellMite® Master (Model 4329M) and CellMite® Slave (Model 4329) must be a minimum distance of 15 feet for wireless operation.
- Wireless communication up to 4 miles.
- Wireless network with up to 8 CellMites®.
- Model 4329M Master directly connects to a PC.
- Monitor and control networked units with Cellview Lite GUI software.
- +/- 10V analog output can be used for local indication and control.
- Shunt button on top panel of Remote Slave can be used to close the shunt relay and take a reading when connected to an analog display.
- Tare button on top panel of Remote Slave can Tare readings when connected to an analog display.
- CellView Lite software allows for measurement of load, peak, and valley in English and metric units. User-defined units also supported in GUI software.
- CellView Lite software allows data storage directly to PC that is compatible with Excel spreadsheets.
- CellView Lite software allows user to Tare readings at any point when data is streaming from the unit.
- Model 4329 Remote Slave supports the calibration of up to three sensors. Calibration data is stored in the unit. CellView Lite software allows user to calibrate various types of strain-gage sensors.
- Calibration for load cells can be done using manufacturer's milli-volt per volt calibration factor, 2 or 6 point known mass/extension, or internal precision shunt calibration.
- Two latching solid state relay switches are available for use through the CellView Lite software.
- Auto Identification of calibrated load cells with TEDS-Tag®.
- Analog Output of either a set voltage or a voltage tied to the sensor reading with user defined scale factor and offset. Wide range, buffered ±10.00 volt output.



CellMite® features a nonvolatile memory for parameter and calibration storage, the ability to select between three transducers, multi-point and mV/V calibration, remote sense excitation, and a 24-bit internal resolution with 16-bit analog output. It compensates for transducer nonlinearities using its integrated 6-point calibration.

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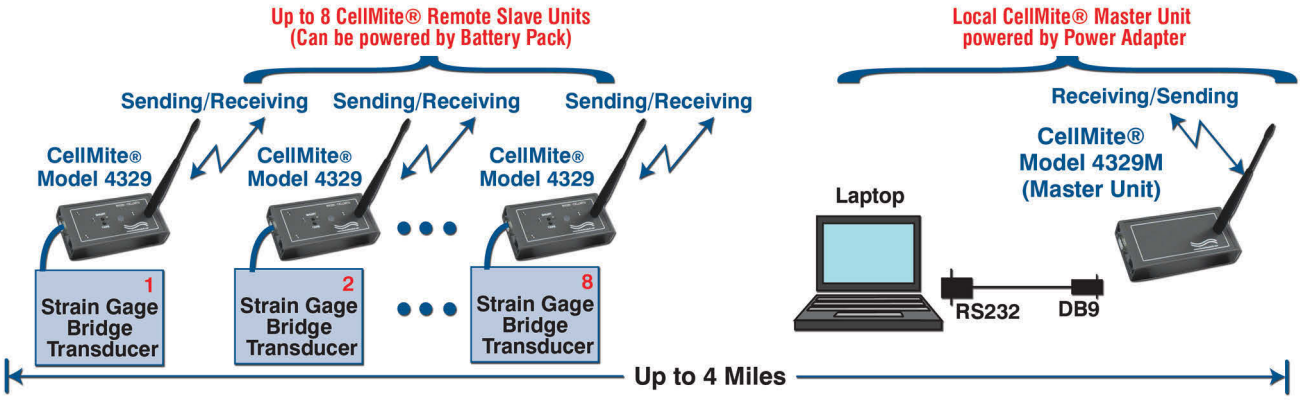
Typical Wireless Network Using CellMite® Model 4329 Remote Slave and CellMite® Model 4329M Master



CellMite® Model 4329 Remote Slave Specifications

Excitation:
Voltage: 5 VDC. Nom. Load 350 Ω.

Operation:
Input Range: +/-5.5 mV/V.
Conversion Rate: 60 per second.
Tare, Peak, Valley
Precision Shunt 60Ω
Pushbuttons: Tare, Shunt
Indicator: Status LED

Outputs:
Analog: 16-bit, Scalable, +/-10V.
Serial Data: Multi-drop RS232.

Storage:
For 3 calibrated load cells.

Calibration Options:
2 pt, mV/V Calibration.

Calibration:
6 pt. Linearization Cal., 2 pt. Shunt.

Units:
Lb, Kg, In, Cm, %, User-Defined

Temperature:
Internal Temperature compensation.

Relay:
Solid State.

Internal Resolution:
24-bit internal resolution, error 0.01%, +/- 1 count.

Mechanical:(4329/4329M)
Size: 5.5" x 2.75" x 1.2". (19.5 x 9.7 x 4.2 cm)
Weight: 8.9 oz. (252g).
Din Rail mount available.

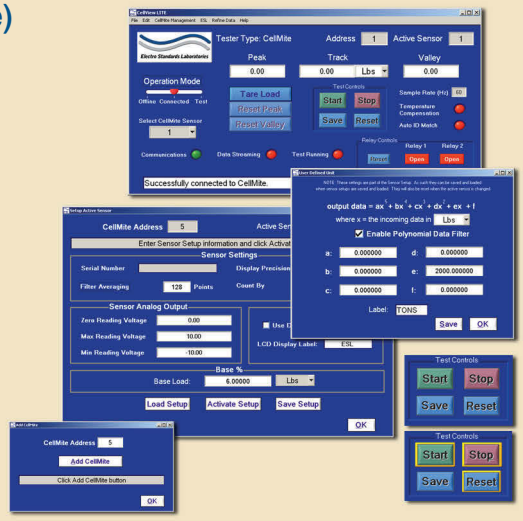
Power: (4329/4329M)
5 VDC (+/-10%), 230mA.
(Included Adapter)110/240VAC, 60/50 Hz
Compatible with
4 x AA NiMH Rechargeable Batteries

Wireless Operation:(4329/4329M)
Nominal Frequency 900 MHz
Classification: Mobile
This device complies with Part 15 of the FCC Rules.

Minimum Distance of 15 Feet;
Maximum up to 4 Miles

CellView Lite Graphical User Interface (GUI Software)

Features:
- Guides user through adding/removing CellMite® units.
- Stores calibration data for three sensors.
- Guides user through sensor calibrations.
- Tare and reset peak and valley for the sensor.
- Set output data with a quadratic filter.
- Save/Load the CellMite® unit and sensor setup information.
- Setup a test to start and/or stop automatically.
- LEDs indicate operational status of the GUI.
- Save data, calibration, and sensor test information to spreadsheets.
- Control output with relay switch.
- User programmable analog output voltage.



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