**Complete Plant Growth Monitoring Solution**

- Comes complete, programmed and assembled
- Battery life (9 volt) – typically one year
- Works with Laptop PC’s or PDA’s
- Import data into Excel spreadsheets easily
- Options for adding soil moisture or weather sensors

**A Complete Logging Solution**

The DEX Dendrometer Data Logging System is comprised of a GP1 data logger and (2) DEX electronic dendrometers and can be used to monitor plant growth rate or stress levels over long periods of time. The system can operate completely unattended. The GP1 data logger offers a self-contained solution for monitoring DEX electronic dendrometers, soil moisture and weather sensors. Data can be monitored and displayed in real-time or output to a PC using the supplied RS-232 serial data cable.

The DEX Electronic Dendrometers can be clamped on stems or fruits (citrus, apples, plums, etc.) and can measure very tiny changes in stem or fruit diameter (~0.004 mm). A trend upward represents the growth rate of the plant, whereas a leveling off or trend downward indicates plant stress. This way, growers know when, and how much stress the plants are under. This information can then be used to schedule irrigation or fertilizer applications, as well as keeping track of growth rates over time.

**Easy Installation**

The DEX dendrometers are connected to the GP1 data logger using a twist-lock connector and extension cable. The dendrometers are then clamped onto a stem or fruit using a screw adjustment knob and suspended with a mono filament string to keep the weight of the dendrometer from pressing on the plant. Thereafter, the change in stem size influences the dendrometer output, which directly converts to mm or inches of expansion from the zero point. A calibration multiplier may be loaded into a logger command, as well as the zero offset, and readings are output directly in mm or inches of change. This data can be stored in the data logger memory or output to a PC or PDA device.

**Features**

- Nondestructive
- Real-Time measurements
- Long-term monitoring
- Adaptors for woody stemmed, herbaceous plants, and fruits
- Weatherproof and rugged for field study
- Ranges from 5 mm up to 200 mm diameters available
- Long extension cables available, up to 100 ft
Specifications

<table>
<thead>
<tr>
<th>Units</th>
<th>DEX20</th>
<th>DEX70</th>
<th>DEX100</th>
<th>DEX200</th>
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NOTE 1
Output sensitivity and multiplier are determined by a 10 point calibration curve from 0 - 3 mm and 5 points from 3.5 to 13 mm. Each sensor is provided with a factory calibration certificate for precise figures.

GP1 Logger Specifications

- Input Connections: 2 voltage channels
- 2 temperature inputs or 2 additional Soil Moisture Sensors
- 2 pulse counters (33kHz & 50Hz)
- 1 WET Sensor input
- Control Outputs: 1 smart relay (1A)
- Readings Stored: 600,000
- Recording Rate: 1 second up to 24 hours
- Configuration: DeltaLINK-PC or Pocket DeltaLINK (PDA option)
- Communication Options: RS-232 or modem
- Sensor Excitation: 0 to >300 mm/hr
- Power: One 9 V alkaline/lithium or external power supply 11-24 V
- Battery Life: ~ 1 year
- Enclosure Rating: IP67
- Temperature Range: -20 to +60° C (with lithium battery)
- Size: 5.5 x 4.1 x 1.7 inches (140 x 105 x 45 mm)
- Typical Applications: Monitoring soil moisture, Logging weather sensors, Controlling irrigation

DEXLOG
GP1 Logger with two DEX stem and fruit growth electronic dendrometers (DEX70 or DEX100). Includes 10 ft. cables, and factory calibration.

GP1-MP1
Stainless steel mounting plate and fittings for mounting onto a 2” tube or flat surface.

DEX20
Dendrometer for stems or fruits 20 mm, 3 m cable length

DEX70
Dendrometer for stems or fruits 10 - 70 mm, 3 m cable length

DEX100
Dendrometer for stems or fruits 25 - 100 mm, 3 m cable length

DEXCC
Calibration kit for DEX70 or DEX100

ECWD-25
8 m cable for dendrometer, waterproof connector

ECWD-Lxx
Extra length, (XX) added to cable ECWD-25