

# DEX Electronic Dendrometers

DEX20 mm

DEX70 mm

DEX100 mm

DEX200 mm

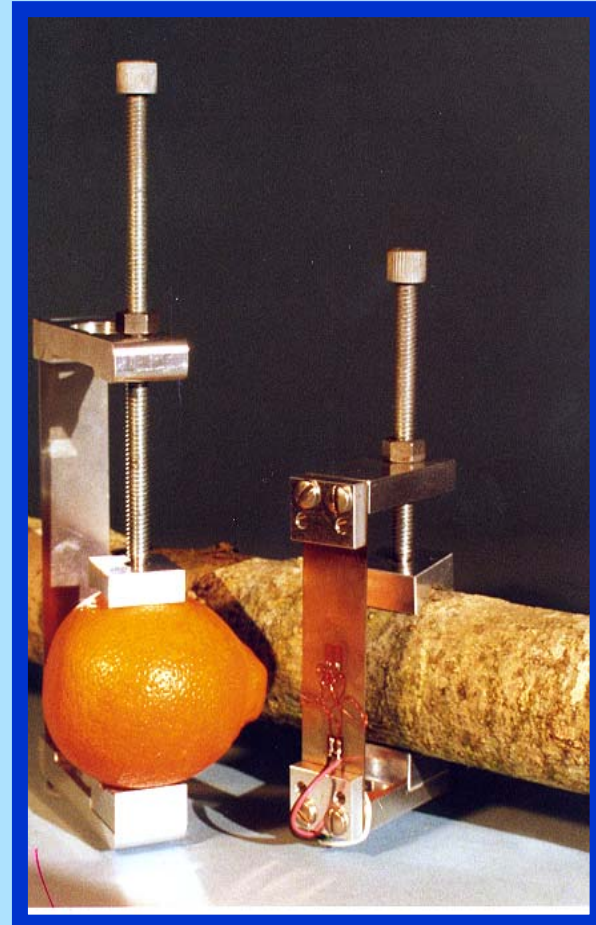


# DEX Electronic Dendrometers

- **Non-Destructive**
- **Real-Time Measurements**
- **Long term measurements possible.**
- **Weatherproof and rugged for field study**
- **Caliper body - milled alloy**
- **Stainless steel flex band**
- **Four balanced, temperature compensated strain gages**
- **Electronics sealed and weatherproofed**
- **Five clamping blocks provided, 3 for stems and 2 for fruits**

# DEX Electronic Dendrometers

- **DEX20**      **5-25 mm Range**
- **DEX70**      **20-70 mm Range**
- **DEX100**     **30-100 mm Range**
- **DEX200**     **95-200 mm Range**
- **Accuracy 50 microns typical (.05 mm)**
- **Resolution +/- 4 microns (0.004 mm)**
- **Requires (1) Differential Channel**
- **500 mV Excitation - standard**
- **Calibration 10 point - provided**
- **“Real-Time” Plant Growth or Stress**



# DEX- Mechanical Specifications

	<b>DEX20</b>	<b>DEX70</b>
<b>Units</b>	(mm)	(mm)
<b>Measurement Range</b>	5-25	10-70
<b>Expansion Range</b>	0-5	0-13
<b>Weight</b>	55 g	180 g
<b>Clamping Blocks Size</b>	19 x19 x 6	25 x 25 x 9.5
<b>Clamping Blocks Set</b>	1 x Cylindrical 1 x Spherical	1 x Cylindrical 1 x Spherical

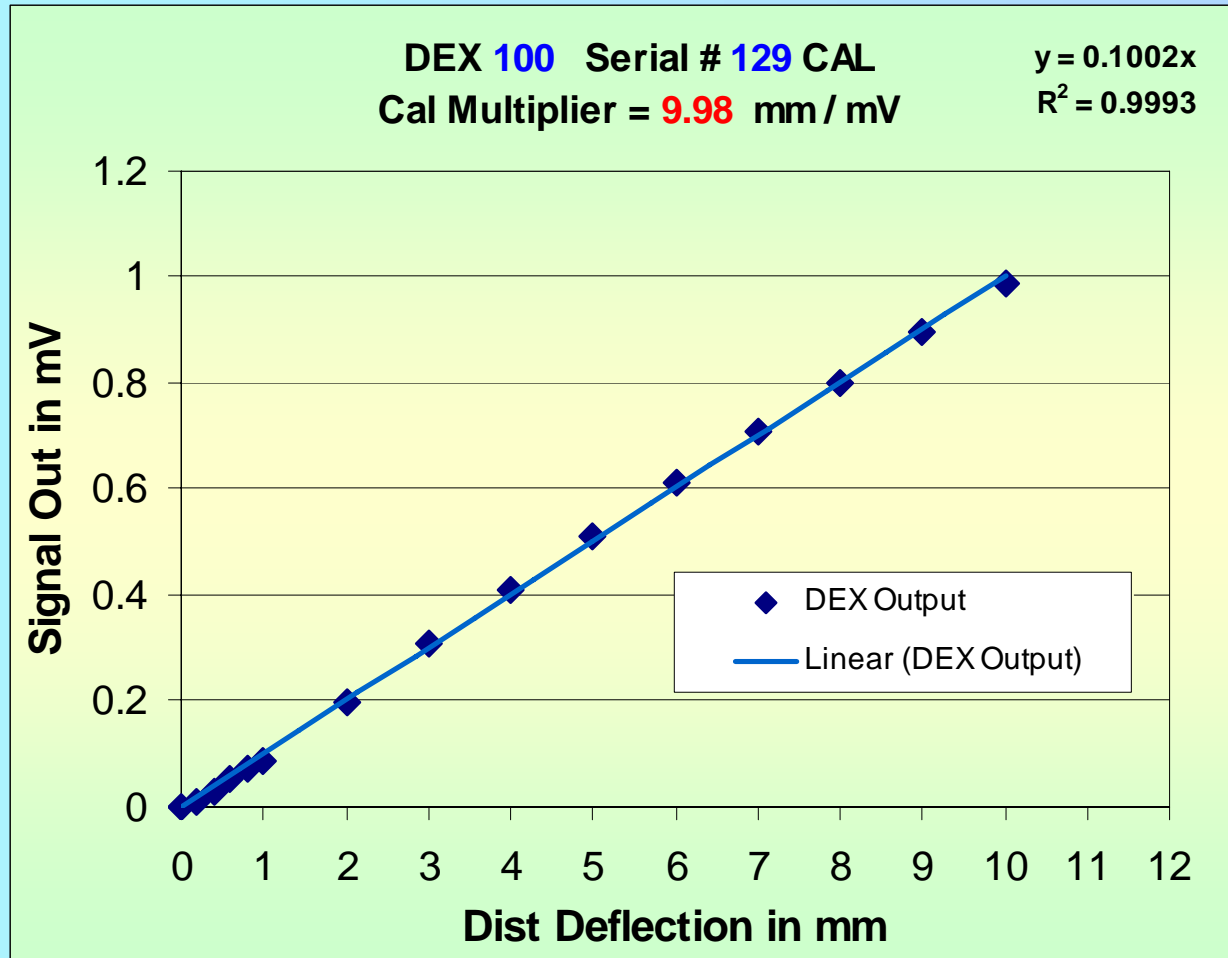
# DEX - Specifications

	<b>DEX100</b>	<b>DEX200</b>
<b>Units</b>	(mm)	(mm)
<b>Measurement Range</b>	30-100	95-200
<b>Expansion Range</b>	0-13	0-13
<b>Weight</b>	230 g	572 g
<b>Clamping Blocks Size</b>	25 x 25 9.5	25 x 25 9.5
<b>Clamping Blocks Set</b>	1 x Cylindrical 1 x Spherical	1 x Cylindrical 1 x Spherical

# Environmental Specifications

<b>Operating Range</b>	-10 to 50°C	-10 to 50°C
<b>Temperature Range</b>	0.0025 mm/°C	0.0025 mm/°C
<b>Accuracy Over 20°C Range</b>	0.050 mm	0.050 mm

# Dendrometer Performance



# DEX - Electrical Specifications

	<u>DEX20</u>	<u>DEX70</u>
Signal Output Range	+/- 5 mV	+/- 5 mV
Output Sensitivity Note 1	0.5 mV/mm	0.22 mV/mm
Conversion Multi. Note 1	2.0 mm/mV	4.5 mm/mV
Output Linearity	+/-0.01 mV/mm	+/-0.006 mV/mm
(Over full Range 0-13 mm)	(+/- 3%)	(+/- 3%)
Excitation	500mV	500mV
Input Impedance	350 Ohms	350 Ohms
Cable Standard	10 ft (3m)	10 ft (3m)



# DEX - Electrical Specifications

	<u>DEX100</u>	<u>DEX200</u>
Signal Output Range	+/- 2.5 mV	+/- 2.5 mV
Output Sensitivity Note 1	0.13 mV/mm	0.05 mV/mm
Conversion Multi. Note 1	7.7 mm/mV	20 mm/mV
Output Linearity	+/-0.004 mV/mm	+/-0.004 mV/mm
(Over full Range 0-13 mm)	(+/- 3%)	(+/- 3%)
Excitation	500mV	500mV
Input Impedance	350 Ohms	350 Ohms
Cable Standard	10 ft (3m)	10 ft (3m)

# DEX Accessories

- **DEXCC** Calibration kit for DEX20, DEX70, DEX100 & DEX200
- **ECWD-25** 25 ft (7.6m) extension cable with waterproof connectors.
- **ECWD-Lxx** Extra length cable(xx) added to ECWD-25

# DEX Calibration Kit



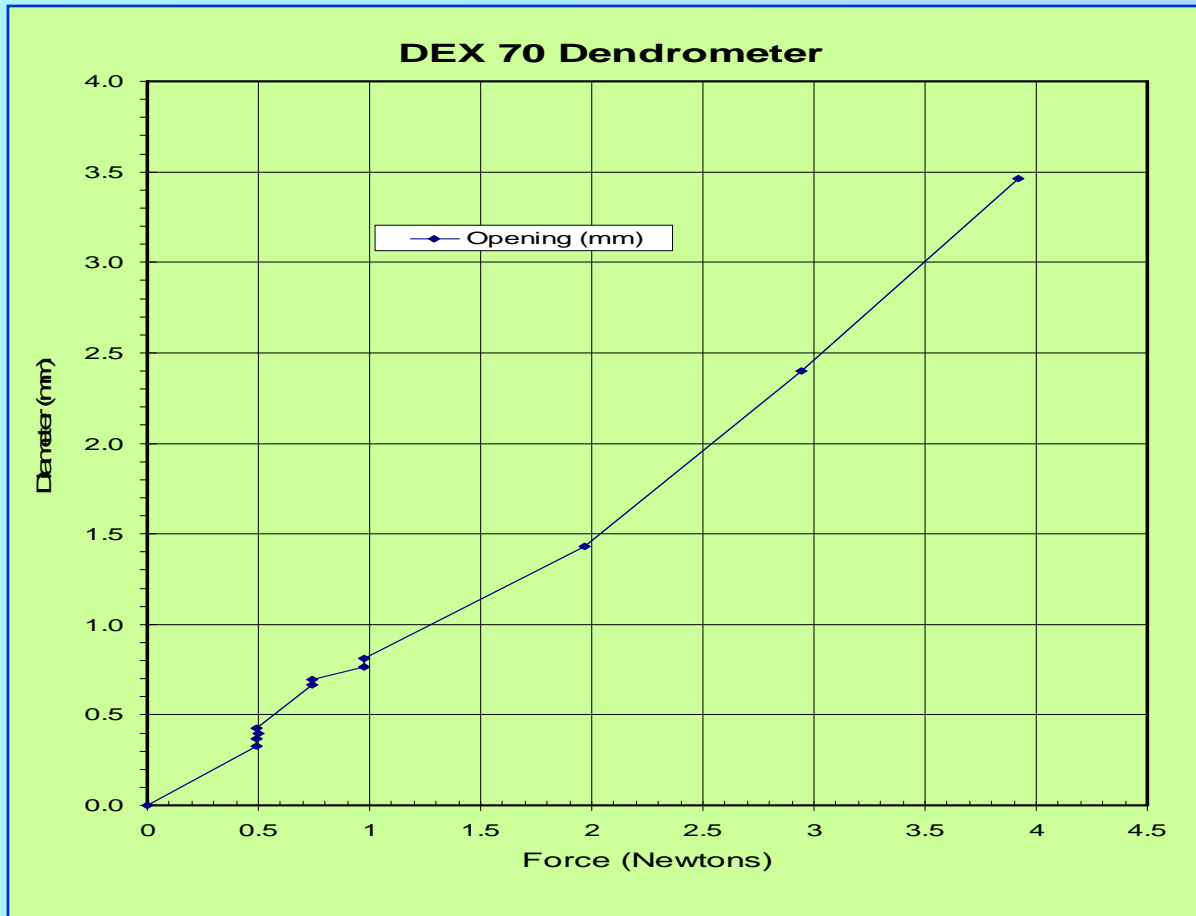
**Complete Sensor with  
Anvils**

**For Fruit and Stems**



**Calibration Kit for precision  
adjustment – checking.**

# Deflection Force - DEX



Performance

Reference  
Article

