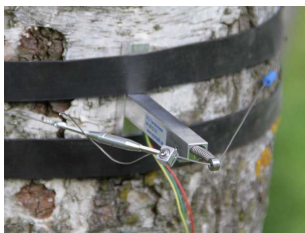


## DC2 Circumference Dendrometer 2



The DC2 is the improved version of the DC1. The elastic force of the sensor is not applied in tangential, but in radial direction. With this physical layout, the pressure of the wire cable to the tree adjusts automatically with tree diameter (for further information please visit our internet page). The data of different tree sizes is comparable. The sensor is mounted by means of a stem embracing cable wire. The cable wire consists of a special material (purpose specific alloy), with the lowest thermal expansion coefficient available. The slide rings reduce friction and pressure between the wire cable and the tree bark.

### Advantages

- Suitable for all tree sizes (> 5 cm)
- Contact pressure between wire cable and tree adjusts with tree diameter
- Automatic adjustment of the tension, sensitive measurements even with very large trees
- No injury to plants
- Stability against wind, snow, falling small branches and small fruits
- Easy installation
- Easy adjustment by the integrated turnbuckle

### Limits

- The data must be converted (free Excel program)
- The tree must be roughly circular

### Delivery

- Complete with 5 m cable and 1 m wire cable

### Options / Ordering Information

- Cable extension (please specify in meters)
- Extension of the wire cable (please specify in meters)
- Free Excel program for data conversion
- Data Logger

### Technical specifications

Name	Circumference Dendrometer 2 (DC2)								
Suitable for plant size	Diameter > 5 cm								
Range of the sensor	15 mm								
Range in diameter	Because of the design the effective measuring range in diameter is dependent on tree size. <table> <tr> <th>Tree Diameter (cm)</th><th>Measuring Range (mm)</th></tr> <tr> <td>10</td><td>9.9</td></tr> <tr> <td>50</td><td>6.6</td></tr> <tr> <td>100</td><td>5.2</td></tr> </table>	Tree Diameter (cm)	Measuring Range (mm)	10	9.9	50	6.6	100	5.2
Tree Diameter (cm)	Measuring Range (mm)								
10	9.9								
50	6.6								
100	5.2								
Accuracy	$\pm 2 \mu\text{m} \pm 0.12\%$ (CR1000 data logger)								
Resolution	0.3 – 3.6 $\mu\text{m}$ (dependent on data logger used)								
Linearity	2%								
Thermal expansion coefficient of sensor	<0.1 $\mu\text{m/K}$								
Thermal expansion coefficient of the wire cable	<1.4 $\times 10^{-6}/\text{K}$								
Operating conditions	Air temperature: -25 to 70 °C, air humidity: 0 to 100%								

## DC3 Circumference Dendrometer 3



The DC3 has the same layout as the DC2. Only the sensor measuring range is greater than with the DC2. This meets the measurement requirements of fast-growing trees.

The **advantages, limits, delivery, and ordering information** of DC3 is the same as that of DC2.

### Technical specifications

Name	Circumference Dendrometer 3 (DC3)						
Suitable for plant size	Diameter > 5 cm						
Range of the sensor	25 mm						
Range in diameter	Tree Diameter (cm)      Measuring Range (mm) <table> <tr> <td>10</td><td>16.2</td></tr> <tr> <td>50</td><td>11.3</td></tr> <tr> <td>100</td><td>9.0</td></tr> </table>	10	16.2	50	11.3	100	9.0
10	16.2						
50	11.3						
100	9.0						
Accuracy	$\pm 3.3 \mu\text{m} \pm 0.12\%$ (CR1000 data logger)						
Resolution	0.4 – 6 $\mu\text{m}$ (dependent on data logger used)						
Linearity	0.7%						
Thermal expansion coefficient of sensor and wire cable, and Operating conditions are the same as that of the DC2 dendrometer							