

DR Radius Dendrometer

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The sensor is fixed by two special screws, anchored in the trunk wood. The changes outside of the trunk wood correspond to radial growth and diurnal diameter variation. The arrangement ensures high stability for long-term measurements.

Advantages

- Stability against wind, snow, falling branches and fruits
- Low pressure at the measuring point
- Suitable for large trees (diameter > 8 cm)
- Ideal for long-term measurement with less manpower

Limits

- Trunk is injured by drilling (the damage can be minimized by tree resin)
- Suitable only for larger trees (diameter > 8 cm)

Delivery

- Complete with 5 m cable

Options / Ordering Information

- Cable extension (please specify in meters)
- Installation tools (tree resin, hand drill)
- Data Logger

Technical specifications

| Name | Radius Dendrometer (DR) |
|---|---|
| Suitable for plant size | Diameter > 8 cm |
| Range of the sensor | 11 mm |
| Accuracy | $\pm 1.5 \mu\text{m} \pm 0.12\%$ (CR1000 data logger) |
| Resolution | 0.2 - 2.6 μm (dependent on data logger used) |
| Linearity | <1% |
| Thermal expansion coefficient of sensor | <0.1 $\mu\text{m/K}$ |
| Operating conditions | Air temperature: -25 to 70 °C, air humidity: 0 to 100% |

DRW Radius Dendrometer Rugged



The DRW is the ruggedized version of the DR dendrometer type. In addition to the features of the simple DR version, the DRW dendrometer is modified for the use under especially harsh environmental conditions. A soft, weather-resistant rubber coating, protects the whole sensor from ingress of water and solid particles.

Advantages (additionally to DR type)

- Suitable for measurements underwater, under snow cover and under heavy exposure to dust (e.g. volcanic ashes, desert dust, etc.)
- Suitable under exposure to corrosive seawater spray

Limits

- Trunk is injured by drilling (the damage can be minimized by tree resin)
- Suitable only for larger trees (diameter > 8 cm)

Delivery

- Complete with 5 m cable

Options / Ordering Information

- Cable extension (please specify in meters)
- Installation tools (tree resin, hand drill)
- Data Logger

Technical specifications

| Name | Rugged Radius Dendrometer (DRW) |
|---|---|
| Suitable for plant size | Diameter > 8 cm |
| Range of the sensor | 11 mm |
| Accuracy | $\pm 1.5 \mu\text{m} \pm 0.12\%$ (CR1000 data logger) |
| Resolution | 0.2 - 2.6 μm (dependent on data logger used) |
| Linearity | <1% |
| Thermal expansion coefficient of sensor | <0.1 $\mu\text{m/K}$ |
| Operating conditions | Air temperature: -25 to 70 °C, air humidity: 0 to 100% |