Root Dendrometer Type DD-RO

Technical Specifications



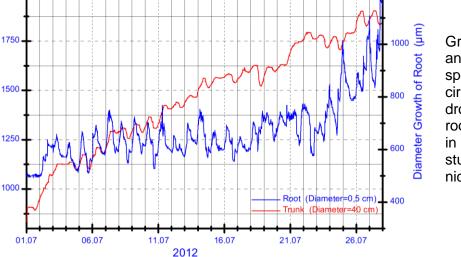
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Diameter Growth of tree Trunk (µm)

The DD-RO Dendrometers is designed for continuous measurement of roots, aquatic plants and creepers. The device is waterproof. The sensor rod is protected with soft, light-resistant rubber. The metal clamp protects the sensor from excessive pressure from top soil. It is easy to install and maintenance free.

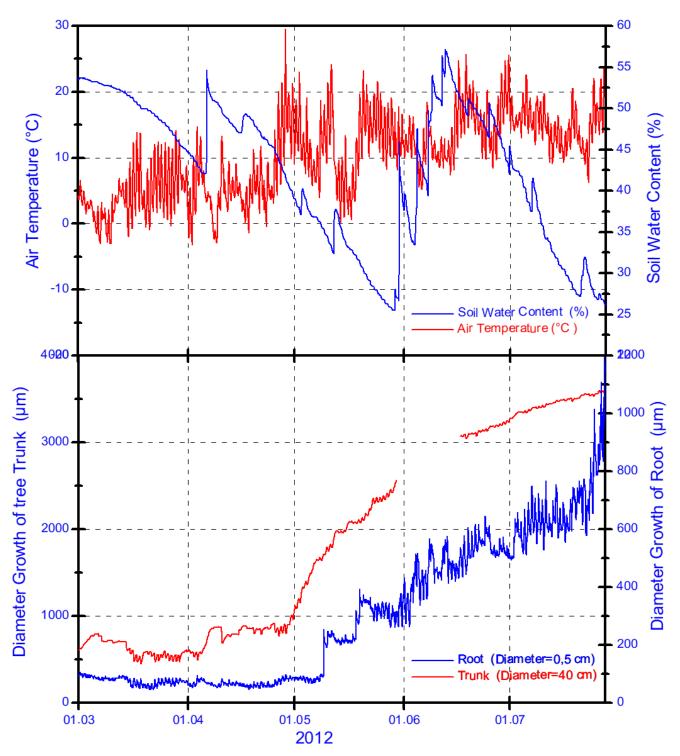
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Growth curves of trunk and root of a Norway spruce, measured with circumference Dendrometer (DC1) and a root Dendrometer (DRO) in Kranzberger Forst, a study plot of the Technical University Munich

Name of the Sensor	Root Dendrometer Type DD-RO
Use area	For measuring diameter growth of roots and aquatic plants
Suitable for Root size	Diameter 0-20 mm (> 20 mm on request)
Range of the senor	11 mm
Resolution	The resolution of the sensor itself is infinite. The resolution of readings is determined by connected data logger, e.g. CR1000: 1.5 µm Dendrometer logger DL18: 0.2 µm
Accuracy	Dendrometer dependent: Max. ±4.5% of reading (stable offset) Logger dependent, e.g.: CR1000: ± (0.04% of reading +4.4 μm) Dendrometer logger DL18: ±0.1%
Temperature coefficient of the sensor	<0.2 µm/°C in the whole range
Linearity	<1%
Environment	In soil, under water or snow condition: -25 to 70°C air temperature, 0 to 100% relative air humidity
Weight of the sensor	30 g without cable
Power supply	Stabilized Vex of 0.5 – 10 VDC, power consumption practically zero
Material	Stainless steel and Aluminium
Cable length	5 m, extendable up to 100 m

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Growth curves of trunk and root of a Norway spruce, measured with circumference Dendrometer (DC1) and a root Dendrometer (DD-RO) in Kranzberger Forst, a study plot of the Technical University Munich