

DBL60 Stand-Alone Logging Dendrometer

Whole tree water relations research has just become easier and more accurate. The DBL60 Logging Band Dendrometer now incorporates its own self-contained datalogger. Using an internal lithium battery there is no need for external batteries or solar panels to power the logger, meaning it can be attached to a tree and set logging with no other accessories or requirements.

Such independence means multiple trees throughout an experimental site can be continuously logged over a much larger area than if they were required to be connected to a central logging system. Small trees, large trees, neighbouring trees or very distant trees can now easily be measured without physically limiting design constraints. The DBL60 is a very reliable and low cost method of accurately measuring and monitoring tree growth rates.

DBL60 Logging Band Dendrometer Features

- Rotary position sensor
- Step-less reading
- No upper limit in stem diameter
- Built-in datalogger
- IR data access
- Optional internal temperature logging
- Non-invasive fixing
- High resolution (1 μ m)



The DBL60 is the scientific standard for dendrometer measurements on trees. It is a standalone instrument with an internal logger and battery. The logger has a memory capacity of 50,000 readings and the battery can last up to 5 years.

Communications is via an infrared communications link with a dedicated, Windows based software interface. No programming is required. Simply install the DBL60 onto the tree and set a logging interval.

The DBL60 has a high resolution of 1 μ m (0.001mm). The DBL60 is non-invasive and attaches to the stem with an inextensible stainless steel band. The stainless steel band has a linear thermal co-efficient of 17.3x 10⁻⁶ per °C. Therefore thermal variations caused by daily or seasonal changes in temperature have no measurable impact on the operation of the DBL60.

The DBL60 is IP65 rated and is designed to be installed in the harshest field conditions for years at a time.



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Specifications

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Operating Conditions

Minimum Stem Diameter	80 mm
Maximum Stem Diameter	No limit
Increment Range	60 mm
Resolution	0.001 mm
Linearity	2% of full scale
Memory Capacity	50,000 readings or 4 years at hourly readings
Communications	Infrared
	Temperature
Measurement Accuracy	$\pm 2^{\circ}\text{C}$
	Power
Battery Capacity	Approx 5 yrs at hourly intervals
Type	Internal Lithium
	Weight
Weight	450gm
	Strength
Tightening Strength	15 to 20 N
	Dimensions
Tape Spool Length	15 m
Tape Spool Width	12 mm

