

LOGGING BAND DENDROMETER DRL26

The band dendrometer enables continuous, non-invasive monitoring of changes in stem circumference. Its stepless reading allows precise monitoring of stem growth. The measurement range for changes in circumference is 65 mm; by resetting the band, the dendrometer can be readjusted to measure a larger overall circumference. The dendrometer is suitable for stems with a minimum diameter of 8 cm; with an optional base plate upgrade, stems with diameters from 4 to 8 cm can also be measured. There is no upper limit for stem diameter. The dendrometer is easy to attach non-invasively with a tension force of 15 to 20 N. Linearity is $\pm 1\%$ over the full measurement range.

MAIN FEATURES DRL26

- Memory capacity 100,000 readings
- Battery capacity ca 5 years when measuring each hour
- Fully enclosed dendrometer housing without a connector
- Communication via an infrared interface using an IR reader
- Optional internal temperature logging



IrDA/USB data cable

TECHNICAL SPECIFICATIONS

PARAMETERS	SPECIFICATIONS
Dimensions (L × W × H)	100 x 70 x 100 mm
Weight	~350 g
Housing protection class	IP 63
SENSOR	
Sensor type	Rotary position sensor
Measurement range (change in circumference)	65 mm
Minimum diameter of trunk	8 ... ∞ cm (optionally 4 ... 8 cm with base plate upgrade)
Linearity	±1% of full scale
Resolution	<1 µm
Reading	stepless
Internal temperature measurement accuracy	±0.3 °C
POWER SUPPLY	
Battery	Lithium LS14250CN 3.6 V; 1000 mAh
Battery life with 1 hour interval	approx. 5 years
CONNECTION / COMMUNICATION	
Connector	Fully enclosed dendrometer housing without a connector
Cable length	no cable
Communication / Output	Data transfer: • Wireless infrared transmission • special USB/infrared data transfer cable
DATA LOGGER	
Measuring and storing interval	5 min ... 24 h
Storage capacity	ca. 100,000 values
Internal clock accuracy (-10 to 40 °C)	better than ±15 sec. per month
ENVIRONMENTAL CONDITIONS	
Operating temperature	-40 ... 60 °C
Air humidity	0 ... 100 %
STAINLESS STEEL TAPE	
Tape length	20 m
Tape width and thickness	12 x 0.2 mm
Tension force	15 to 20 N in the entire area
Tape temperature coefficient	16 µm/(m·K)