Dendrometer increment sensor DRL26D with built-in datalogger

Main features:
- Rotary position sensor
- Step-less reading
- No upper limit in stem diameter
- Built-in datalogger
- Wireless IR data access
- Internal temperature sensor
- Non-invasive fixing
- Manufactured by EMS

upgrade of a popular product DRL26C with larger memory

Specifications:
- Minimal stem diameter 8 cm (optionally 4 – 8 cm)
- Increment range 65 mm
- Resolution less than one micrometer
- Linearity 1% over full range
- Memory capacity 100,000 readings
  (6 years when measuring each hour)
- Battery capacity ca 5 years
  (when measuring each hour)
- Tightening strength 15 to 20 N
- Internal temperature accuracy ±0.3 °C
- Fixing tape from stainless steel 12 x 0.2 mm
- Accessories – stainless tape 20 m; IrDA/USB cable

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General description

Data logging sensor DRL26D is intended for the measurement of stem increment of large stems with diameter 8 cm and larger (optionally 4 – 8 cm with base plate upgrade). Sensor output is calibrated directly in millimeters of increment of stem circumference.

The sensor is designed with respect to easy and fast installation. It is fastened on the measured object by means of stainless tape wrapped around the stem.

Adherence pressure is set as a compromise between the influence on plant tissues and stability of position.

Installation notes

Sensor has to be placed on a relatively straight and regularly shaped part of stem at relatively smooth place without irregularities around the circumference. Sensor base should sit perfectly only and just on all four spikes. For more information read installation manual.

Specification

Increment sensors type	rotary position
Range	64 mm of circumference
Linearity	1 % of full scale
Resolution	1 µm
Internal tmperature accuracy	± 0.3 °C
Tape strength	15 to 20 N in the whole range, stem diameter independent
Tape temperature coefficient	16 µm/m,K
Operating environment temperature	-40 to 60 °C
Operating environment humidity	0 to 100 %
Memory size (capacity)	256 kB (100,000 readings)
Battery lifetime with measuring every 10 min	ca 4 years
Measuring interval	5 min to 4 hrs
Storing interval	5 min to 4 hrs
Clock accuracy (-10 to 40 °C)	better than ±15 sec/month
Battery	SAFT LS14250CNA
Size	100 x 70 x 100 mm
Weight (incl. battery)	ca 350 g
Protection	IP 63

Software

Mini32 universal software running under Windows® 7, 8 and 10. The software assures all necessary operations – system setup, data downloading and processing. Its data processing part is made for work with large and long-time data series. It offers exceptionally sophisticated visualization and data manipulation, it includes basic statistic features, creates and prints graphs and exports data to different file formats.

Two-year full warranty.

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