



Bio Instruments S.R.L.

SENSORS AND SYSTEMS
FOR MONITORING GROWING PLANTS

SA-20M

Auxanometer



Introduction

The SA-20M Auxanometer is a draw thread displacement transducer. The output of the SA-20M Auxanometer is proportional to the amount of thread pulled out of the unit. The thread is a plastic stretch-resistant cord and is tensioned by an internal spring pack. A thread begins with a ring for connecting an extension wire (thread, cord, or clip) provided by a user. A thread outlet is located at the bottom panel of the housing. A guide wheel and a lug provide the upward thread direction. A rough outline of the SA-20M Auxanometer is shown in the Fig.1. The outline is approximate and shall not be of the essence.

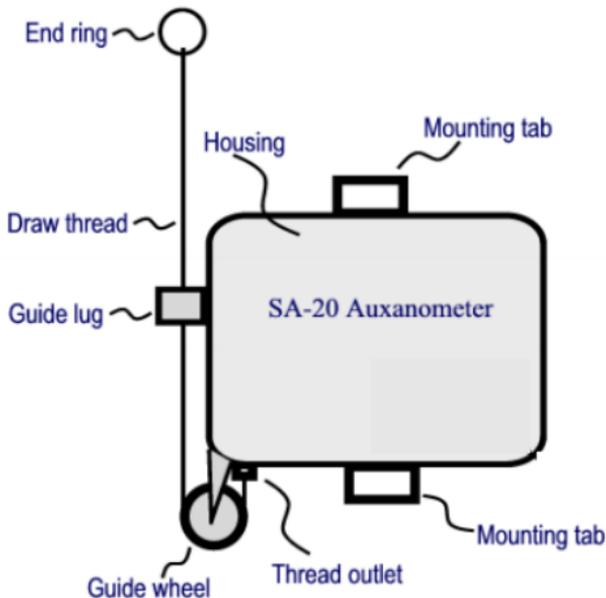
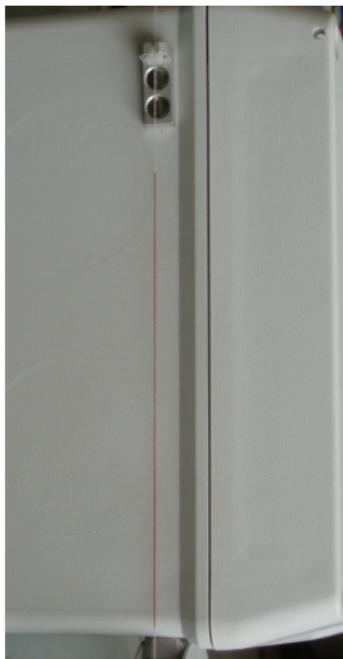


Fig.1

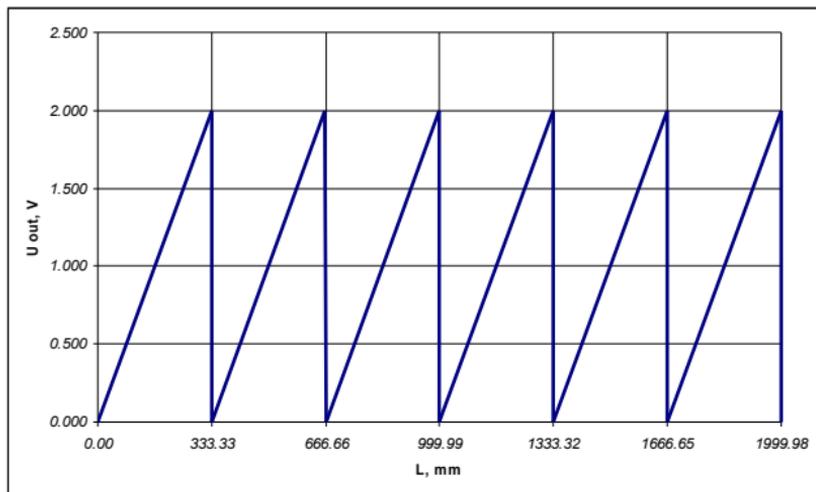
Installation

- To be mounted on a trunk or another base with the use of two screws or bandings (not included into delivery set).
- Installation simply involves bolting down the housing and then attaching the draw thread to the part, which is to be measured.
- You may see the red segment of the thread which indicates that the 2-meter thread is almost fully released. Please adjust extension wires to set the thread close to zero value.



Output

The displacement transformation characteristic of the SA-20M is ramp (or sawtooth) as shown in the figure below:



Specifications

Measurement range	2000 mm
Linear output range	0 to 2 Vdc that corresponds to 333.33 mm
Resolution	0.1 mm
Sensitivity	6 mV/mm
Supply voltage	5.5 to 16 VDC
Supply current	18.5 mA max
Excitation time	5 s max
Operating temperature	0 to 50°C
The tension of the thread	40 to 60 g
Protection index	IP 53
Overall dimensions, mm	220 × 220 × 100
Output cable length	3 m

Connection

White	Output
Yellow	AGND
Red	Power
Blue	PGND



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