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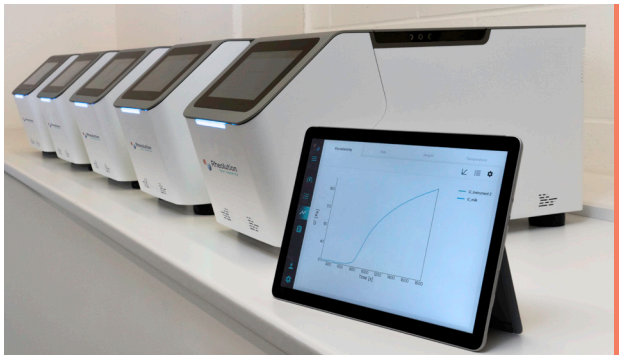
ElastoSens™ Bio
Specs and Features



ElastoSens™ Bio is a benchtop instrument that precisely characterizes in real-time, without contact and without destroying the sample, the viscoelastic properties of soft materials. Samples are contained into removable sample holders that can be disconnected, stored out of the instrument and re-connected for re-testing as many times as required.

The ElastoSens™ Bio is operated by the ElastoSens™ Tablet App. The tablet can communicate remotely with the instrument using a wireless and secured communication protocol, or wired to the instrument for communication. It is possible to connect up to five ElastoSens™ Bio units to a single ElastoSens™ Tablet App in order to operate them in parallel. This modularity of the system allows running a high number of tests in parallel and increases the productivity of routine testing or investigation while managing individual instruments using a single ElastoSens™ Tablet App. The system can be extended at any time by adding additional units of ElastoSens™ Bio.

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Connect up to five ElastoSens™ Bio units to a single ElastoSens™ Tablet App

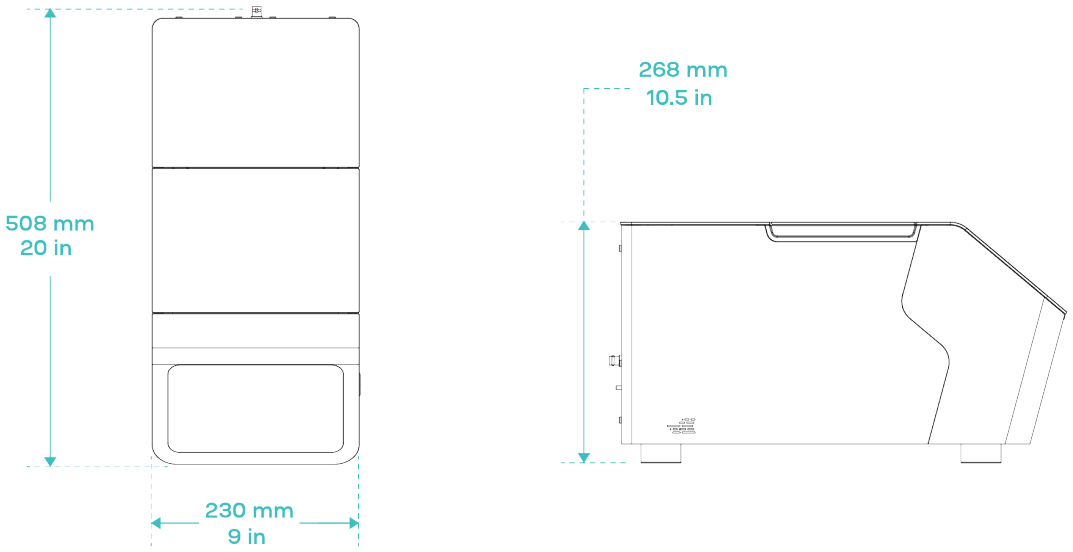
ElastoSens™ Bio: Non-invasive and Contact Free Mechanical Testing of Soft Biomaterials

- Contact-free viscoelastic measurements of the sample's shear complex dynamic modulus shear storage modulus G', shear loss modulus G'', shear complex modulus G* and loss tangent Tan(d). The shear complex dynamic modulus is measured for samples having a shear storage modulus (G') higher than 500 Pa. For samples having a shear storage modulus (G') smaller than 500 Pa, only the shear storage modulus (G') is measured by the instrument.
- Contact-free and real-time measurement of sample height simultaneously with the viscoelastic properties. The sample height is correlated to the sample's volume.

Shear storage modulus (G') measurement range	1 Pa to 1 MPa (repeatability: ±1%)
Loss tangent (Tan(δ)) measurement range	0 to 1 (repeatability: ±1%)
Height measurement range	1.0 mm to 20.0 mm (absolute precision: ±0.20 mm)
Sample volume range	0.35 mL to 7.0 mL. The required sample volume depends on the shear storage modulus of the sample
Basic temperature control	Room temperature +2°C to 50°C (absolute precision: ± 0.1°C)
Temperature profiles	Programmable temperature profiles (with multiple ramps and sequences)
Custom time steps between measurements	2 seconds to 60 minutes
Custom total measurement time	10 seconds to 240 hours
Power Requirements	100-240 VAC (±10%), 50 – 60 Hz
Max power consumption	370 W
10.5'' Windows tablet with protective cover	9.65 in x 6.9 in x 0.04 in (245 mm x 175 mm x 8 mm)

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Dimensions of a single ElastoSens™ Bio unit



weight: 35 Lbs (16 kg)

Advanced, Wireless connectivity Windows Tablet App

- Each ElastoSens™ Tablet App can simultaneously communicate and manage up to five ElastoSens™ Bio units.
- The ElastoSens™ Tablet App runs on a Windows Surface Go 2 tablet (1 tablet is included with the main platform. Additional tablets can be purchased separately), that can communicate wirelessly (via WiFi) or via a cable with up to five ElastoSens™ Bio units.
- Displayed measurements and built-in calculations : steady viscoelastic properties of materials (with no changes as a function of time, temperature or light), transient viscoelastic properties of materials (with changes as a function of time, temperature or light), calculation of gel formation and degradation rate (dG'/dt), real-time sample height (correlated to sample volume).
- The ElastoSens™ Bio Tablet App allows for : complete test setting (time, temperature and light), measurements, real-time data visualization, data archiving, data comparison, report creation, data and reports transfer.
- Custom management of password-protected user accounts.
- Custom management of the instruments remotely connected to the Tablet App : pairing, configuration, display name and display color.
- The ElastoSens™ Tablet App builds an extensive and secured database that can be exported.
- Simple back-up and update procedures.

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Touchscreen Interface on the ElastoSens™ Bio

- To change thermal chamber temperature.
- To switch the thermal chamber ON and OFF.
- To control the network settings.
- To display instrument status and main results.
- Digital opening button of the thermal chamber.

Additional features

Advanced temperature control

This remote extended temperature control add-on comprises:

- Extended temperature control between 4°C temperature and 70°C (absolute precision: ± 0.1°C).
- Temperature profiles : programmable temperature profiles (multiple sequences of ramps).

Advanced photostimulation

This system is an add-on to the ElastoSens™ Bio. It allows shining light on the tested sample at different wavelengths and intensities during the measurement of the viscoelastic properties:

- Selection of three different wavelengths : 365 nm, 385 nm and 405 nm.
- Adjustable intensity of each of the three light sources.
- Can combine different light sources (up to three) with different intensities.
- Programmable exposition to light : can build custom and sequential sequences to expose the sample to different light wavelengths and intensities at each sequence.

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Contact us today to start your Soft Matter Analytics™ journey

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