

 imetrum

Vector

Material Test Extensometer

imetrum

Introducing Vector

An extensometer, re-imagined.

A self-contained extensometer, capable of replacing multiple contacting and non-contacting sensors with a single, industry specific, next generation instrument.

Integrating adaptive AI capabilities with state of the art hardware, Vector reduces test throughput times and complexity whilst improving operator safety, measurement accuracy and data consistency.



Accurate

ISO 9513 Class 0.2
ASTM E83B1.



Automated

AI driven specimen
detection.



Flexible

Range of specimens
and test types.



Dependable

Simple and intuitive
measurement.

Exceptional Design

Vector eliminates the challenges of traditional extensometers by utilising non-contact, high accuracy measurement techniques:

- Increasing testing efficiency by removing handling operations
- Measuring strain through failure
- Testing in harsh environments
- Testing of highly fragile specimens
- Avoids introducing stress concentrations, such as damage from knife-edge contact
- Improving test success rate by eliminating contact-point slippage
- Eliminating consumable parts

Simple, Reliable Operation

Delivered pre-configured with a large working volume, machine setup changes are eliminated when alternating between different specimens or test types.

A range of automation features such as specimen and gauge length detection, simplify the operator interaction and improve test reliability.

Stereoscopic sensing detects machine or specimen misalignment and negates out-of-plane errors.

On-board processing delivers seamless and simple integration and eliminates all external control platforms.

Economic and Intuitive

Clear and simple visual status feedback and laser alignment guides, reduce operator training requirements and significantly improve test throughput.

Advanced Functionality



By automating specimen detection, Vector speeds up and simplifies test throughput.

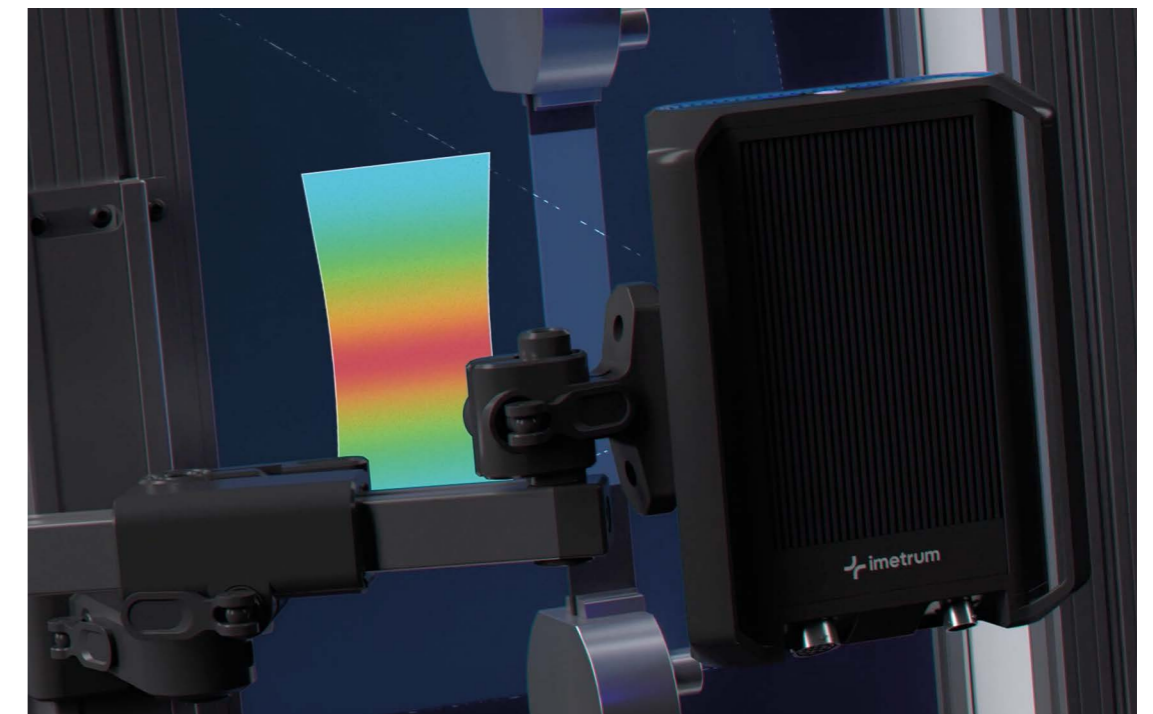
Supporting multiple gauge lengths, Vector removes the need for multiple, traditional sensors.

A large working volume also provides a forgiving operating envelope making Vector suitable for use on almost any test frame.

Onboard AI enables truly zero touch operation, with dynamic response to different specimen appearance and behaviour as well as switching seamlessly between test and validation mode.

Vector's smart design means there is no need to alter the setup for specimens of different sizes, shapes and thicknesses.

Full integration into UTM control software removes the need for an external interface and simplifies the user experience.



Significantly Reduces Total Cost of Ownership

Vector represents a significantly reduced capital investment compared to advanced extensometers such as video, laser and automated systems, whilst also offering a comparable lifetime cost to that of a single clip-on extensometer system.



Standard UTM Interface

Suitable for axial strain measurement applications and supplied as standard.



Optional Extension Arm

Suitable for larger test frames or use with temperature chambers and enclosures. Fitted with a magnetic locator mechanism to allow simple movement into and out of position.



Landscape Intermediary

Ideal for use with 3 or 4 point bend or compression testing systems.

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