



The first name in materials testing

# Vector Extensometer U200

**Single variable gage length measurement**

**From 25-180mm gage length, dependent on elongation % within 200mm FOV**



- Non contacting with digital placement of specimen gage marks supporting an automated process.
- 0.5  $\mu\text{m}$  resolution (1.9685039e-5 inch), ISO 9513 Class 0.5 and ASTM E83 Class B1 capable.
- Various marking options available, material dependent. Rings, speckles.
- Output data available in analog formats.



# Specifications

|                                             |                                                                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of View:                              | Fixed 200H x 40W x 100D[mm] cuboid                                                                                                                                                                       |
| Real-Time Data Rate:                        | ≥ 100 Hz, platform dependent. Full system from acquisition to output                                                                                                                                     |
| Strain Outputs:                             | Analog Output: ±10V, short-protected, selectable units and range; includes 3m (10ft) shielded output cable                                                                                               |
| Resolution:                                 | <0.5 µm quasistatic, and cyclic; <i>Typical RMS resolution at typical settings</i> . Resolution is a function of the marking data rate and filter settings                                               |
| Extensometer Accuracy Class:                | ISO 9513 Class 0,5 and ASTM E83 Class B-1 typical at ≥25mm gage length capable                                                                                                                           |
| Minimum Specimen Width/Diameter:            | 5mm wide flat or 6mm diameter, excluding marking accessories                                                                                                                                             |
| Gage Length:                                | Variable, 25mm minimum                                                                                                                                                                                   |
| Maximum Strain:                             | Variable:<br>Typically >500% using a 25mm gage length                                                                                                                                                    |
| Cyclic Testing:                             | Speed and specimen dependent                                                                                                                                                                             |
| Strain Control:                             | Suitable for monotonic and cyclic strain control applications                                                                                                                                            |
| Out-of-Plane Sensitivity:                   | Out-of-plane boundary = 300mm ±50mm from front of module                                                                                                                                                 |
| Ambient Operating Light Conditions:         | Suitable for use in a day light situation, artificial lab or room lighting situations                                                                                                                    |
| Suitable for use with Temperature Chambers: | Measuring strain in a temperature chamber at ambient, high and low temperature (min. window width 170mm)                                                                                                 |
| Signals Integration Options:                | Control, information, and notification through client interface and or test suite software. Manufacturer dependent                                                                                       |
| Power Supply:                               | 100-240 VAC, 50-60 Hz, 1.4A 120W max, IEC 320 C14 receptacle.                                                                                                                                            |
| Power Consumption:                          | 8W (avg)                                                                                                                                                                                                 |
| Recycling Capability:                       | Up to 60% of this product can be recycled; metals and cabling                                                                                                                                            |
| System Environment:                         | 10-40°C (50-100°F), for use and storage; 20-80% relative humidity non-condensing environments                                                                                                            |
| Mechanical Integration Options:             | <b>Physical mounting schemes available for;</b><br>T slot single and twin column vertical testing machine frames.<br>Multi-column vertical testing machine frames.<br>Horizontal testing machine frames. |
| Typical ROI:                                | 6 months                                                                                                                                                                                                 |
| Component defect warranty:                  | 12 months [extended warranty available, please inquire]                                                                                                                                                  |
| Manufactured:                               | In the UK                                                                                                                                                                                                |

## TO order numbers

|                 |                                                                                  |
|-----------------|----------------------------------------------------------------------------------|
| 99-993-0000/A0: | Vector Extensometer - Axial g/l from 25-180mm in 200mm FOV incl. T-Bracket & Arm |
| 99-993-9920/00: | Vector mounting bracket split collar clamps round column mount                   |
| 99-993-9999/00: | Vector Extensometer Analogue Input Signal Conditioner for ST/SL Series           |



Tinius  
Olsen

[www.tiniusolsen.com](http://www.tiniusolsen.com)

- Horsham, PA, USA
- Redhill, Surrey, UK
- Noida, UP, India
- Shanghai, PR China