PhotoStress® Analysis
The LF/Z-2 Computerized Reflection Polariscope System for Full-Field Stress Analysis
Micro-Measurements
What is PhotoStress® Analysis?

- A full-field stress and strain analysis method
- Can be utilized under various live load conditions
- Suitable for residual stress analysis, assembly stress inspection, and fatigue tests
- Can be applied to various materials (metals, composites, concrete, and more)
- Easy to use and analyze results

About PhotoStress

- The PhotoStress® analysis system is composed of a reflection polariscope and PSCalc® computer software that enables the user to store and process LF/Z-2 readings of stress and strain
- A variety of photoelastic coatings may be applied on a wide range of materials, with simple or complex shapes

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Range</strong></td>
<td>From 0% to 150% elongation (by various coating types)</td>
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<tr>
<td><strong>Resolution</strong></td>
<td>≈10 μs (for 3-mm coating thickness)</td>
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<tr>
<td><strong>Measuring Area</strong></td>
<td>Subject to coated area</td>
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<tr>
<td><strong>Working Distance</strong></td>
<td>Up to 3.05 m (10 ft)*</td>
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<tr>
<td><strong>Light Source</strong></td>
<td>White light</td>
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<tr>
<td><strong>Operating System</strong></td>
<td>Windows 2000, XP, Vista, Windows 7</td>
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<tr>
<td><strong>Size and Weight</strong></td>
<td>Maximum height: 1950 mm (76.4”); Assembled weight: 2.9 kg (6.3 lb)</td>
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<td><strong>Camera Resolution</strong></td>
<td>Function of camera type used</td>
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<tr>
<td><strong>Other Components</strong></td>
<td>PSCalc computer software, laser-based direction indicator, USB compensator interface, application kit, portable operation handgrip, technical/operating manuals and tech notes</td>
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**PhotoStress® Analysis System – Main Benefits and Solutions**

- Instant identification of stress concentrations and zero-stressed areas
- Quantitative measurement of stress and strain at any point on the structure
- Validation of any finite element analysis (FEA)
- Weight reduction optimization
- Analysis of:
  - Stress resulting from fabrication tolerances
  - Stresses which occur during assembly processes
  - Residual stresses due to processes such as welding and casting
  - Simple or complex stress situations

Learn more at:  
www.vishaypg.com/micro-measurements/photo-stress-plus/
Worldwide Contacts
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