LUNA



Can Your Strain Gage or Thermocouple Do This?

Measure strain and temperature where you need it with millimeter resolution



Simply embed or surface mount small, nearly weightless fiber optic sensors into your material or component, and directly measure stress, strain or temperature.

- Measure internal and interlaminar strain
- Measure strain along curves and other difficult to gage surfaces
- Eliminate blind spots in your FEA model
- · Verify multi-material joint and bond performance
- Profile strain and temperature with mm resolution



The ODISI 6000 Series offers multichannel capability, real-time strain and temperature data, and NIST-traceable measurements.

www.lunainc.com/odisi

LUNA

High-Definition Fiber Optic Sensing (HD-FOS) for Composites



ODiSI 6000 Series

Strain and Temperature Measurements with Sub-Millimeter Spatial Resolution

>1000 measurement points per meter of fiber sensor.

Mapping of Strain and Temperature Contours The fiber is flexible and can be routed along complex geometries, providing a full field view of strain.

Low Profile Sensor for Embedded Application A fiber sensor can be unobtrusively embedded within

A fiber sensor can be unobtrusively embedded within composite materials.

Environmentally Robust

A fiber sensor is corrosion proof, immune to EMI/EMC and introduces no source of ignition.

CONSORTIUM MEMBER

Advanced Measurements for Advanced Materials



The high density of measured strain data is ideal for more completely and more accurately validating finite element models, particularly models with fine mesh for analysis of critical stress points or hot spots.



Embedded Sensors for Smart Parts

Fiber optic sensors are small and lightweight enough to embed within a composite structure, providing access to valuable sensor data and health monitoring throughout the entire life cycle of the component.



Measure Difficult Geometries and Locations

With extremely small size flexibility, and large strain range, fiber optic sensors can be placed along complex geometries and in difficult to reach areas of high strain gradients. Easily capture a full map of the strain or temperature profile, where you need it.



Temperature Profiles for Manufacturing

Accurately map the temperature profiles of your process, or even internal to your part, with unobtrusive fiber optic sensors that deliver fast response and highdefinition temperature mappings with millimeter-level resolution.



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