

irNDT

C-CheckIR Sensor

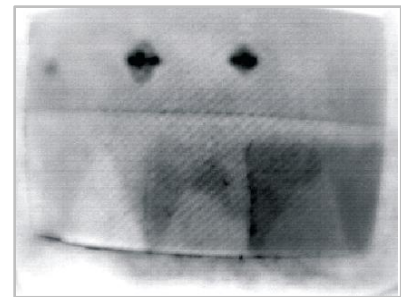
Compact Solution for *ir*NDT



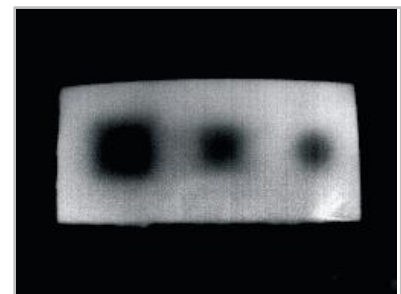
C-CheckIR Sensor is an industrial sensor head for infrared non-destructive testing (*ir*NDT) of composites and other materials in production lines. The system incorporates a sensitive smart infrared camera with features like image pre-processing and excitation-source control. A wide variety of camera resolutions and lenses are available for adaptation to most application requirements. Large inspection areas can be covered by adding additional excitation sources.

Features

- Smart infrared camera with high thermal sensitivity
- Touchscreen tablet PC with intuitive user interface
- Industrial grade compact sensor
- Integrated electronics for accurate excitation
- Easy system configuration and maintenance
- Automatic loading of inspection parameters
- Automatic performance of *ir*NDT inspections
- Automatic analysis and storing of inspection results



Impact Damage



Dissolved Bondings

Key Benefits

NON-CONTACT DEFECT DETECTION

Active NDT thermography “sees” common composite defects.

- ✓ Structural Cracks
- ✓ Delaminations & Disbonds
- ✓ Impact Damage
- ✓ Moisture Ingress
- ✓ Voids & Porosity

REAL-TIME NDT INSPECTION

Ideal Solution for Real-Time Inspection of Composites and other Materials.

- ✓ Short Measurement Times for Increased Productivity (< 15s)
- ✓ Easy Documentation for traceable Inspection Results
- ✓ Designed for Integration into Production Lines

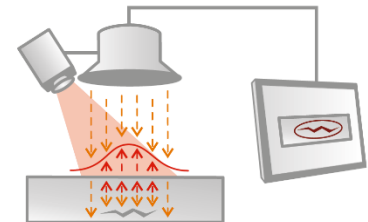
THERMOGRAPHY NDT MADE EASY

Complex analysis technology simplified for automated inspection.

- ✓ Simple System Configuration & Maintenance
- ✓ Automated Loading of Inspection Parameters
- ✓ No Surface Preparation Required

How does it work?

C-CheckIR Sensor works by means of active thermography. The Sensor-Head stimulates the test area with an optical excitation source (halogen lamp). Then, the system’s software analyzes, from a sequence of thermal images, the heat-flow over time, generating a result image that shows the internal structure of the material. It is kind of like a “thermal X-Ray”.



Specifications

Measuring Procedure	
Temperature increment during a measurement (ΔT)	+8 °C (typical)
Inspection time	10 – 25 seconds (typical)
Inspection area	430mm x 340mm (with following system configuration: 1 excitation source, camera with 336 x 256 pixels and 12mm lens, positioned at 400mm) *Inspected area can be enlarged with a second excitation source
Infrared Camera	
Available Resolutions	168 x 128, 336 x 256, or 640 x 480
Thermal Sensitivity	< 20 mK @ 30°C
Detector	Uncooled LWIR
Available Lenses	6mm, 10mm, 18mm, 25mm
Tablet PC	
Display	13” Multi-Touch Screen
Software	
C-CheckIR Sensor Software contains advanced analysis algorithms for measurement data with system hardware controls.	
Excitation Source	
Halogen Lamp Power	1.7 / 2.0 kW
General	
Power Supply	110 VAC 1.7 kW / 230 VAC 2.0 kW
Weight (Sensor Head)	Approx. 3.0 Kg (system configuration dependent)

*Specifications subject to change without notice. 10/2021