

RTSS-VIDEOEXTENSOMETER

[REAL TIME STRAIN SENSOR]

MEASUREMENT SYSTEM FOR

ONLINE STRAIN MEASUREMENT

[Principle]

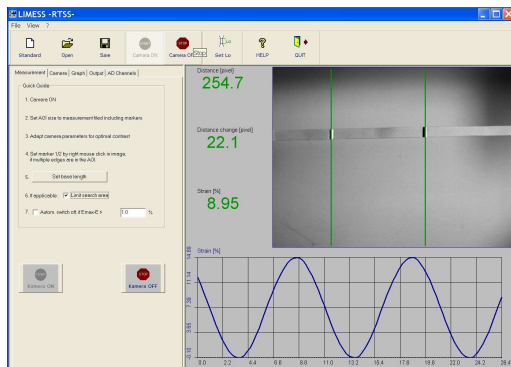
RTSS is a contactless optical measurement system based on a single camera and real time image processing. It measures the longitudinal and transverse strain between two applied lines with a rate of up to 4000 Hz. The strain data is transferred e.g. via an analogue signal [+/- 10V] to the tensile test machines for further processing or controlling.



[Applications]

Determination of material properties, strain controlled tensile tests, exploration of cracks, investigation of strain behaviour on dynamic tensile tests, dynamic and high speed tests, vibration analysis, etc.

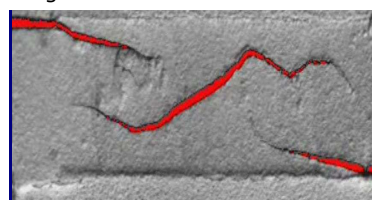
[Examples]



Dynamic strain measurement between two indicated lines or markers.
Real time output signal can be used to control the tensile test machine or hydropulsor.



Longitudinal strain measurement with RTSS.



Optical
Crack
detection
by RTSS

[Features]

- Contactless Real Time strain analysis
- Laptop or desktop system
- Spatial resolution: Max. 1×10^{-6} of the measurement field
- Strain range: Up to 500%
- Sampling rate: Up to **4000 Hz** (depending on resolution)
- **Programmable analog output signal** for the controlling of external software and devices
- 100 % compatible to universal tensile test machines of **Instron, MTS, Zwick, Schenk**, etc.

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