CLEVELAND ELECTRIC LABORATORIES
Thermocouples & Sensing Solutions since 1920

LG Tech-Link Global

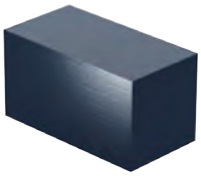
MADE IN THE USA

Uniform Crystal Temperature Sensor (UCTS) Technology and Services

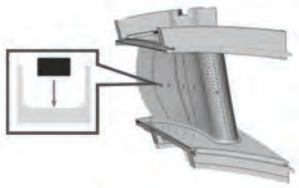
A unique technology that enables accurate max temperature measurement in hostile environments.

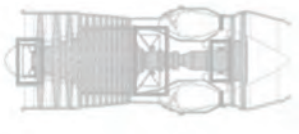
- 20+ years experience on real engine and rig testing with OEMs
- A proven,* robust validation and verification technique
- Ideal for use on rotating and hard to reach parts
- Cost effective and user friendly
- Quick post processing for fast turn around times

* Industry publications can be referenced upon request



Micro Size





Technical Characteristics	
Micro Size	0.008" x 0.008" x 0.015"
Wide Temperature Range	300 – 2600 °F
Low Uncertainty	σ = ± 6 °F
Lead Less	No leads or connectors required
Non-Hazardous	No chemical or radiation hazard
Good Survivability	> 95% Survival
Flexible	Works with varied test profiles (including cyclical and long duration)
Flexible	Fast turnaround times ~ 100 crystals analyzed per day

CEL is Platinum Certified by LG Tech-Link for Installation and Removal of UCTS's.

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Applications

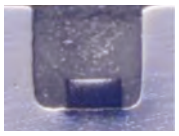
The high accuracy, small size, and robustness of Uniform Crystal Temperature Sensors (UCTS) has made it possible to adapt the technology to many different unique applications including gas temperature measurement and gradient measurement. Beyond the successful standard application, LGTL Global continues to explore and advance different installation methods and techniques to obtain valuable temperature data in harsh environments.

Industry Applications

- Power and Gas
- Aerospace
- Automotive
- Space
- Marine

Standard Metal Temperature

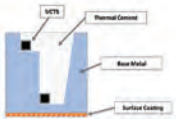
Ideal for non-intrusive, accurate, high density thermal mapping particularly on rotating and hard to reach parts



Thin Wall Installation

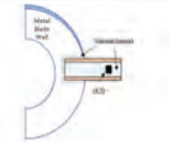
Shallow, altered cavity shapes used for complex geometries and thin wall applications.

Staircase Installation



Capture gradient through wall with small footprint in combustor liner and other parts

Gas Temperature Application



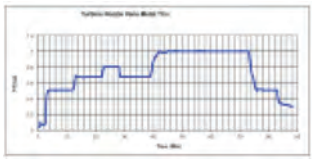
Successfully applied to vanes and blades in real engine testing

Surface Encapsulation

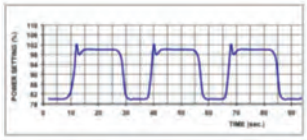
Used on long duration tests or tests where drilling even a tiny cavity is not possible

Variety of Test Profiles and Durations Supported

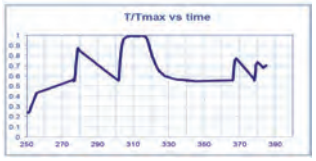
Dedicated Test



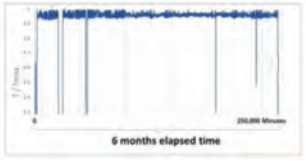
Cyclic / Endurance Test



Free Format Test



Long Duration



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