

STS Calibrators

Supplemental Information

04/17/2014

STS Calibrators are dedicated surface temperature calibration systems. They are unsurpassed in their stability and uniformity.

The STS Calibrators have 0.1°C resolution and typical stability of <100mK. These instruments are calibrated at the laboratory and the surface temperature is extrapolated.



A calibrated reference instrument is strongly recommended for surface measurements. This is accomplished by utilizing the reference TC output on the rear panel with a calibrated reference pyrometer. This moves your reference comparison directly to the surface instead of relying on the controller input, which uses a sensor lower in the block and very far from the surface.



A reference sensor will provide a base line for your measurements. There are some unavoidable variables in all types of temperature measurement including surface measurements. When the STS is received, a baseline test using a standard reference surface sensor is recommended. Simply make a comparison between this reference sensor and the reference TC output. Using this technique as a cross check will help to identify issues such as block surface wear.

The STS Calibrator design allows you to remove the surface temperature output sensor and replace it with your own calibrated reference.

This hole is 0.065" in diameter, 1.000" deep, and located 0.100" on center, below the surface of the block. Access to this sensor is through the back panel of the STS Calibrator.



Thermocouple Access on Rear Panel

Electronic Development Labs, Inc.

244 Oakland Drive
Danville, VA 24540
P: 434-799-0807
F: 434-799-0847
www.edl-inc.com
sales@edl-inc.com



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