

# Thermo Scientific Calibrator Certification Service

Calibrate and certify your Thermo Scientific Model 81*i* Mercury Calibrators to a NIST Traceable Reference Generator

The Thermo Scientific™ Calibrator Certification Service compares and validates the Thermo Scientific™ Model 81*i* Mercury Calibrator, as well as the Thermo Scientific™ High Level Model 81*i*H and Low Level Model 81*i*L Calibrators, to a NIST- traceable Vendor Prime or Field Reference Generator.

- Calibrate to NIST traceable reference methods
- Compliant with Utility MATS and Cement MACT
- Conduct Relative Accuracy Test Audits with confidence
- Provide NIST Traceable documentation verifying concentration outputs



The Thermo Scientific Calibrator Certification Service compares and validates the Thermo Scientific Model 81*i* Mercury Calibrator to a NIST (National Institute of Standards and Technology) traceable Vendor Prime or Field Reference Generator. The calibration method is based on the Interim Draft Traceability Protocol as set forth by NIST and the Environmental Protection Agency (EPA).

To begin the Calibrator Certification Service, we inspect and test your Model 81*i* calibrator for proper operation prior to the comparison. The results of the “AsFound” conditions are also available for your records.

In the event that your Model 81*i* calibrator does not meet factory specifications, we will repair or replace items as necessary at standard component and labor rates.

We will then perform a 3 x 3 x 1 matrix comparison of the User Calibrator to our Vendor Prime or Field Reference Generator.

We will provide comprehensive certification documentation verifying the concentration outputs at different set points. Our test method assures that your Mercury CEMS concentration measurements are fully compliant with NIST and EPA standards. In addition, we can support you with Periodic Data Quality Assessments of the certified User Calibrator and re-certification as required by the NIST Protocol.

Our Certified Calibration Service can be performed at our facility in Franklin, MA or for users of the standard Model 81*i*, a Field Service Engineer can perform the certification on-site.

You will receive a NIST-traceable certification with “AsFound” and “AsLeft” data.



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### Mercury (Hg) Concentration Ranges and Set-points for the Standard, High Level, and Low Level Model 81*i* Calibrators

Range ( $\mu\text{g}/\text{m}^3$ )	Low	Mid	High	Standard 81 <i>i</i>	High Level 81 <i>i</i>	Low Level 81 <i>i</i>
1	0.2	0.5	1.1			X
2	0.5	1.1	1.9			X
5	1.3	2.7	4.7	X		X
10	2.7	5.7	8.1	X		X
20	5.7	11	17	X	X	X
30	8.1	17	28	X	X	
50	11	28	41		X	
300	85	140	230		X	

### Ordering Information

#### Field Calibrator Certification Service

A Field Reference Generator (certified according to NIST standards by direct comparison to the Thermo Scientific Vendor Prime) and supporting test equipment will first be shipped to your location in advance of the Field Service Engineer's arrival.

#### Factory Calibrator Certification Service

Once we receive the User Calibrator, our qualified technician will perform a matrix comparison to the Thermo Scientific Vendor Prime Generator and will provide documentation verifying concentration outputs.

#### Data Quality Assessment

NIST requires that all customers perform a quarterly, periodic data quality assessment. On-site and factory options are available for this service offering as well.

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

For more information, visit our website at [thermoscientific.com/mercury](https://thermoscientific.com/mercury)

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This product is manufactured in a plant whose quality management system is ISO 9001 certified.

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