5 USEFUL THINGS TO KNOW ABOUT CALIBRATION CERTIFICATES

Properly calibrated instruments maximize ongoing operations for our customers as they provide essential information about the instrument's performance and condition. Calibration certificates are provided as evidence of service for each instrument calibration. Below are the five things you should know about a calibration certificate.

1 / What is the purpose of a calibration certificate?

The calibration certificate is the official document of record for instrument calibration and provides traceability to the National Institute of Standards and Technology. The accuracy and completeness of the calibration certificate itself is reflective of the validity and credibility of the calibrating organization.

2 / What do you do with a calibration certificate once you receive it?

Most companies file the calibration certificate as a historical record. However, some enter the certificate data into a local database that they use to track the status of their test equipment inventory. CalWeb®, Tektronix industry-leading calibration software, is the official repository of all calibration records for calibrations that Tektronix performs, whether the calibration is done within the Tektronix network or through an approved outside vendor. CalWeb is a value-added service available to every Tektronix customer. Learn more about CalWeb at **tek.com/calweb**

3 / What is the difference between a Standard (Traceable) Calibration Certificate and Accredited Calibration Certificate?

Standard (Traceable) Calibration Certificate: Instrumentation is calibrated to specifications with traceable standards. A full data report is optional with the calibration certificate.

Accredited Calibration Certificate: meets the requirements of ISO/IEC 17025 and the lab's accrediting body. The unit under test is calibrated in accordance with ISO/IEC 17025 within the supplier's approved scope of accreditation. Accredited calibrations provide a certificate of calibration with the accrediting body's logo on the document. The calibration date is on the certificate; the calibration due date is only placed on the document when specified by the customer or contractually agreed. A traceability statement is provided as well as measurement data and uncertainty data for each parameter tested during the calibration.

4 / Why is uncertainty in measurement important?

It's about risk. All measurements (ruler, electrometer, thermometer, etc.) have some degree of uncertainty in the measurement. What variability in measurement is acceptable? If a measurement tolerance is .01 and the level of uncertainty in measurement is .001, the risk is relatively low. If the tolerance and uncertainty were reversed, the calibration would be inadequate and would provide a high level of risk to the user. The level of uncertainty allows an informed decision to be made about the acceptability of measurements.

5 / What do different measurement test data types mean (ie: "as found", "before" data, "as left" and "after" data)?

There are several different measurement test data types that can be included on a calibration certificate, the primary ones being:

"As Found" or "Before" Data: Calibration data that is documented during the calibration and before the unit is adjusted and/or repaired. This data is critical to support any necessary customer investigation in the event that Out of Tolerance conditions are detected during the calibration.

"As Left" or "After" Data: Calibration data that is documented during the calibration performed after the unit is adjusted and/or repaired.

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It is important to ensure the user of an instrument receives the condition of the item when received for calibration. Calibration quality system requirements may allow for only a statement of compliance (in-tolerance or out-of-tolerance) or may require the actual measurement data listing the test name, measured value and test limits for each parameter tested during the calibration process. The identification of the instrument's condition as received at the calibration provider is critical to the user, allowing the user to determine if there is any risk from the use of the instrument during the last calibration period.

Tektronix is a leading multi-brand service provider of superior calibration, repair and related support services. An unmatched quality system, backed by a trusted OEM brand and experienced personnel, enables Tektronix calibration service centers to meet world-class calibration standards.

To learn more visit tek.com/service

ABOUT TEKTRONIX

Tektronix is the world's leading provider of multi-brand commercial calibration, repair and related services of test, measurement and control equipment. Delivering unparalleled capabilities and unmatched quality allows Tektronix to provide calibration services for more than 140,000 different instruments from 9,000-plus manufacturers—far more than just Tektronix.

Tektronix provides superior quality with 181 ISO/IEC 17025 accreditation parameters and has an extensive global service network that encompasses 100-plus locations with more than 1,100 experienced associates.

Contact Tektronix:

Australia 1 800 709 465
Austria 00800 2255 4835
Balkans, Israel, South Africa and other ISE Countries +41 52 675 3777
Belgium 00800 2255 4835
Brazil +55 (11) 3759 7627
Canada 1 800 833 9200
Central East Europe / Baltics +41 52 675 3777
Central Europe / Greece +41 52 675 3777
Denmark +45 80 88 1401
Finland +41 52 675 3777
France 00800 2255 4835
Germany 00800 2255 4835
Hong Kong 400 820 5835
India 000 800 650 1835
Indonesia 007 803 601 5249
Italy 00800 2255 4835
Japan 81 (3) 6714 3010
Luxembourg +41 52 675 3777
Malaysia 1 800 22 55835
Mexico, Central/South America and Caribbean 52 (55) 56 04 50 90
Middle East, Asia, and North Africa +41 52 675 3777
The Netherlands 00800 2255 4835
New Zealand 0800 800 238
Norway 800 16098
People's Republic of China 400 820 5835
Philippines 1 800 1601 0077
Poland +41 52 675 3777
Portugal 80 08 12370
Republic of Korea +82 2 6917 5000
Russia / CIS +7 (495) 6647564
Singapore 800 6011 473
South Africa +41 52 675 3777
Spain 00800 2255 4835
Sweden 00800 2255 4835
Switzerland 00800 2255 4835
Taiwan 886 (2) 2656 6688
Thailand 1 800 011 931
United Kingdom / Ireland 00800 2255 4835
USA 1 800 833 9200
Vietnam 12060128
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