



The calibration laboratory of CETA Testsysteme GmbH

Quality represents a key part of CETA Testsysteme GmbH. In addition to the quality of the devices, the accuracy of the measurement results is also of vital importance for the application. For this reason, the test devices must be calibrated regularly. Since the beginning, these calibrations take place in the in-house calibration laboratory. CETA has always applied the highest quality standards in its own calibration laboratory and is guided by internationally recognized standards.

To confirm its technical competence, reliability, and independence, our calibration laboratory has been accredited since 2004 (D-K-19566-01-00). Initially by the German Calibration Service (Deutscher Kalibrierdienst, DKD), and since 2009, by the national accreditation body of the Federal Republic of Germany (Deutsche Akkreditierungsstelle, DAkKS). The regular re-accreditation by DAkKS according to the international standard ISO/IEC 17025 ensures the quality and reliability of our calibration laboratory.

In our calibration laboratory, we conduct both DAkKS-accredited calibrations and factory calibrations. We offer accredited calibrations in accordance with our accreditation certificate (D-K-19566-01-00). Information regarding measured variables and measuring ranges for a factory calibration is available on our website. If you require an accredited calibration deviating from our certificate, please feel free to get in touch with us.

CETA Testsysteme GmbH is the first German manufacturer of leak testers to supply its new devices with an accredited calibration certificate (according to our accreditation certificate) as standard at no extra charge.



In our commitment to provide customers with the highest quality, our calibration laboratory undergoes continuous improvement. In 2017 we expanded our accreditation to include on-site calibrations. Since then, apart from conducting calibrations at our company, we also have the capability to perform calibrations directly at your site.

What is an accredited calibration and why is it needed?

An accredited calibration is distinguished by being conducted in an accredited calibration laboratory. The issued calibration certificate is traceable to both national and international standards, ensuring global acceptance. Companies adhering to certified quality management standards like IATF 16949 are obligated to calibrate their measuring equipment using an accredited calibration. Only with this certificate can the results be considered reliable and comparable. Inaccurate measurement results can lead to significant economic damage and result in high costs.

What is a factory calibration and where does it apply?

A factory calibration is used in situations in which a measuring instrument doesn't have to fulfil metrological traceability requirements. It can be accomplished with reduced effort and allows for the consideration of customer requests.

Differences between accredited calibration and factory calibration

Accredited calibration	Factory calibration
Accredited calibration certificate with accreditation symbol of DAkkS and ILAC ¹	Factory calibration certificate without accreditation symbol
National and international recognition	Limited recognition
Metrological traceability guaranteed	Metrological traceability not given
Bound to specified calibration instructions	Consideration of customer requests possible

¹ International Laboratory Accreditation Cooperation

The calibration laboratory of CETA Testsysteme GmbH also carries out factory calibrations in the accredited range. When placing an order, please make sure to specify whether you require an accredited calibration or a factory calibration.

What is a measurement uncertainty?

There is no such thing as a perfect measurement. External factors influence every measurement. The uncertainty of the measurement indicates how precise the result is. It limits the range in which the correct measured value is located (with a probability of coverage of usually 95 %). The measurement uncertainty is expressed as a positive value and stated with every result.

What is a measurement deviation?

There is no perfect sensor in the industry. Every sensor usually has an inaccuracy. This leads to a measurement deviation. In this case, the measurement deviation represents the difference between the measured value of the sensor and the correct value.

What is a specification?

The specification is a sensor/device-specific indication on the metrological requirements. This means that in use, the measurement deviation should never exceed the specification. The specification is usually specified by the manufacturer. However, the specification can be adjusted at the owner's discretion. The recommended specifications for the CETA devices are detailed in the corresponding data sheet.

What is a statement of conformity?

The statement of conformity is a declaration that indicates whether the calibrated sensor meets the specified requirements. It states whether a sensor with the measured deviations including the measurement uncertainty is fulfilling the specification or not. The calibration certificate can be issued with or without a statement of conformity (according to customer requests). Conformity statements can be based on various decision rules, specifying the extent to which the measurement uncertainty is taken into account. We are happy to advise on decision rules for a conformity statement.

When and why is an adjustment carried out?

If it is determined during calibration that a statement of conformity cannot be made or that the deviations exceed the maximum permissible deviations, the device should be adjusted. An adjustment serves to optimize the sensor, aiming to minimize the deviation. It is also possible to only optimize certain areas of the sensor.