

Calibration & service centre



Accredited and high-quality calibrations

Regular quality controls for measuring instruments are required by almost all quality assurance standards. There is, however, another convincing reason to always certify the accuracy of your measuring instruments - the sense of safety.

After all, only when you know that your instruments are working properly can you also trust the reliability of their measurements. This assurance is as important for your business as it is for your customers.

Correct measuring is of fundamental importance in our highly technological world, since inaccurate measurements can lead to expensive economic consequences.

Every measuring instrument is subject to ageing as a result of mechanical, chemical or thermal stress and thus delivers measured values that change over time.

This cannot be prevented, but it can be detected in good time by calibration.

Regular calibration offers you

- Improvement of manufacturer quality
- Process safety
- Confidence in the measuring device
- Prevention of rejects and reworking
- Compliance with standards, guidelines and certifications
- Protection from possible replacement claims
- Audit safety



Contents Global partner Calibration service for pressure 6 Calibration service for temperature 7 Calibration service for current, voltage, resistance 8 Calibration service for force 9 Calibration service for length 10 SF₆ service 11 Repair 12 **Calibration certificates** 13 Field service 14 **Calibration seminars** 14 Service and consulting 15

Experience and acceptance

Since 1982 WIKA has been a member of the German Calibration Service (Deutscher Kalibrierdienst - DKD), the calibration laboratory and the mobile calibration service have been accredited to DIN EN ISO/IEC 17025.

Since then we have been actively participating in the DKD working groups as well as standardisation committees – contributing our experience to technological progress.

To ensure the same level of all calibrations, the laboratories carrying them out must be accredited in accordance with internationally recognised rules (DIN EN ISO IEC 17025).





Whether DAkkS, SCS, NIST or Cofrac – the traceability of the measurands pressure, temperature, current, voltage and resistance to national and international standards is in safe hands with us.

With a systematic monitoring through DAkkS and regular calibration of our references, you are on the safe side with us.

WIKA – Your strong, global partner in calibration technology

WIKA is the ideal partner for solutions in calibration technology, whether a single service instrument is required, quickly and without complication at the point of use, or whether a fully automated calibration system needs to be designed for the laboratory as well as production.

We are able to offer an appropriate solution for each application.

WIKA has successfully integrated renowned manufacturers of calibration instruments into the group of companies. Through the combination of experience and the product range, we can offer each customer the ideal solution for each measurement task.

WIKA offers a unique range of products in all accuracy classes, from primary standards to simple hand-held instruments, all with different levels of automation.

A multitude of specific patents ensure unmatched performance characteristics with many of our calibration instruments. Our customers particularly appreciate the well-proven functionality of our instruments, which results from WIKA being not only a manufacturer of calibration equipment, but that these are also used in their own production and within their accredited laboratories.



The DH-Budenberg brand stands, like no other, for decades of experience in the manufacture of pressure balances. DH-Budenberg develops and manufactures pressure balances for industrial and laboratory applications with small measurement uncertainties. The product portfolio contains both portable and stationary instruments.





For over 40 years, Mensor has been setting new standards through innovative products for the automation of pressure test tasks. The pressure controllers are suitable for both sensitive applications for use in laboratories and for the demanding requirements in manufacturing.





WIKA stands for portable instruments for pressure and temperature, as well as current, voltage and resistance. Thanks to their robust design, they are ideally suited for calibration or test tasks on-site.



From individual components ...



Portable pressure generation

Test pumps serve as pressure generators for the testing of mechanical and electronic pressure measuring instruments through comparative measurements. These pressure tests may be carried out in the laboratory, workshop, or on-site at the measuring point.



Measuring components

High-accuracy pressure sensors and very stable standard thermometers are ideal for applications as references in industrial laboratories. Due to their analogue or digital interfaces, they can be connected to existing evaluation instruments.



Hand-helds, calibrators

Our hand-held measuring instruments (process tools) offer a simple capability for measurement or simulation of all established measurands on-site. They can be operated with a wide variety of pressure sensors or thermometers.





Digitally indicating precision measuring instruments

High-accuracy digital precision measuring instruments are ideal for applications as reference standards in industrial laboratories or metrology, enabling high-accuracy calibration. They feature exceptionally simple handling and an extensive range of functionality.



Digital precision instruments and controllers

Due to their integrated controller, these instruments offer exceptional convenience. Typically, a fully automated setting of the required value can be done via the interface.



Fully automated calibration systems as complete solutions

Fully automated calibration systems are customer-specific, turnkey installations which can be fitted in laboratories as well as in the production environment. With integrated reference instruments and calibration software, calibration certificates can be generated and archived in a simple and reproducible way.



■ Pressure ■ Temperature ■ Current, voltage, resistance

Calibration service Pressure







We calibrate your pressure measuring instruments (independent of manufacturer)

- From -1 bar ... +10,000 bar
- Using high-accuracy reference standards (pressure balances) and working standards (precise electronic pressure measuring instruments)
- With an accuracy of 0.003 % ... 0.01 % of reading
- In accordance with the directives DIN EN 837, DAkkS-DKD-R 6-1, EURAMET cg-3

- All pressure measuring instruments for negative and positive overpressure, differential pressure incl. differential pressure under static pressure and absolute pressure
- Dial pressure gauges
- Electrical pressure measuring instruments such as transducers, transmitters and pressure sensors
- Analogue differential pressure gauges
- Pressure switches

- Liquid-column pressure gauges/U-tube pressure gauges
- Inclined tube manometers
- Pressure calibrators
- Dead-weight testers/pressure balances
- Pressure controllers
- Vacuum gauges
- Absolute pressure sensors
- Differential pressure sensors





Calibration service Temperature







We calibrate your temperature measuring instruments (independent of manufacturer)

- From -196 °C ... +1,200 °C (to +1,600 °C possible with factory calibration)
- In calibration baths and tube furnaces using appropriate reference thermometers or with various fixed-point cells (e.g. mercury, water, gallium, zinc, tin and aluminium)
- With an accuracy of 2 mK ... 1.5 K
- In accordance with the appropriate DKD/DAkkS directives

- Electrical thermometers with transmitter for temperature
- All resistance thermometers Pt25, Pt100, Pt1000, NTC etc.
- Thermocouples
- Electrical display instruments such as hand-helds, data loggers or table-top indication instruments etc.
- Various sensor types such as immersion probes, ambient sensors and surface contact sensors
- Reference thermometers
- Mechanical thermometers

- Dry-well calibrators
- Temperature calibrators
- Infrared calibrators
- Calibration baths



Calibration service Current, voltage, resistance







We calibrate your electrical measuring instruments (independent of manufacturer)

- DC current in the range from 0 ... 100 mA
- DC voltage in the range from 0 ... 100 V
- DC resistance in the range from 0 ... 10 k Ω
- In accordance with the directives of VDI, VDE, DGQ, DKD 2622

- Multimeters
- Calibrators
- Voltage standards
- Power measuring instruments
- Resistors
- Micro to tera ohmmeters

- Recorders
- Resistance decades
- Shunts
- Multi-function calibrators
- Current sources
- Voltage sources



Calibration service Force

We calibrate your force measuring instruments (independent of manufacturer)

- 1 kN ... 200 kN with a measurement uncertainty of 0.1 % in tension and compression force direction in accordance with DIN EN ISO 376
- 500 N ... 6 MN with a system accuracy of 0.5 % in tension and compression force direction in accordance with DIN EN 10204

- Bending beams/shear beams
- Compression force transducers
- Hydraulic force transducers
- Load pins
- Ring force transducers
- Special transducers

- Load cells
- Tension/compression force transducers
- Tension links
- Electronics
- Test instruments

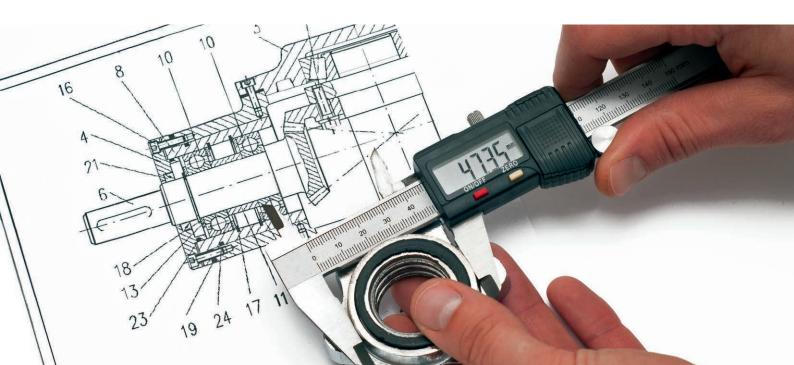
Calibration service Length



We calibrate your length measuring instruments (independent of manufacturer)

- Calibration of reference gauges and measuring inspection equipment
- Factory calibration
- Calibration of special-purpose gauges in accordance with customer drawings
- In accordance with the directives of VDI/VDE/DGQ

- Calliper gauges
- Micrometer gauges
- Dial gauges
- Indicating callipers with mechanical display
- Lever gauges
- Lever gauges for internal and external measurement
- Parallel, smooth reference gauges
- Parallel thread gauges
- Tapered thread gauges
- Gap gaugess
- Testing pins
- Parallel gauge blocks



SF₆ service: Calibration, quality analysis and leak location

Sulphur hexafluoride (SF6) is primarily used for insulation and spark quenching in high-voltage plants. The SF6-filled equipment is predominantly located in the substations and distribution stations of power grid operators.

As a result of the strong environmental effects of fluorinated greenhouse gases, with the Kyoto Protocol, the foundations for worldwide emission-protection guidelines were defined.

In the European Union, the regulation (EU) no. 517/2014 describes the framework conditions for the handling of fluorinated greenhouse gases.

With the WIKA calibration vans, accredited to DIN EN ISO/ IEC 17025, we can calibrate and repair your measuring devices directly on your premises. Alternatively, you can also send your measuring instruments to our calibration & service centre.

Our services

Whether directly on-site or in our WIKA calibration & service centre, you will receive professional services for all ${\rm SF_6}$ products.

Calibration (independent of manufacturer)

For all calibrations, the pressure is based on the reference temperature of 20 $^{\circ}\text{C}.$

On-site

Measuring ranges: to 9 bar

■ Accuracies: ±10 mbar

Instruments: Gas density monitors, gas density switches, gas density indicators

Laboratory

Measuring ranges: to 17 bar

■ Accuracies: ±2 mbar

Instruments: Gas density instrumentation, quality analysis instruments, gas detectors

Quality analysis

On-site

- Measuring ranges: 0 ... 500 ppm_v depending on the substance
- Accuracies: up to 0.1 ppm_v depending on the substance and measuring range
- Substances: SF₆%, H₂O, SO₂, HF, CO, H₂S

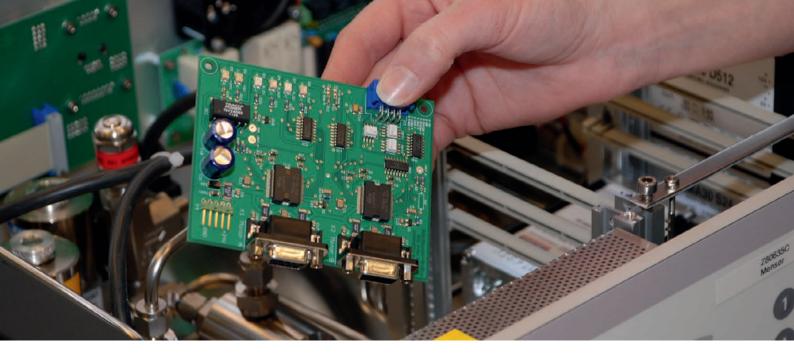
Laboratory

- Measuring ranges: 0 ... 10,000 ppm_v depending on the substance
- Accuracies: up to 0.1 ppm_v depending on the substance and measuring range
- $\begin{tabular}{ll} & \textbf{Substances: SF}_6\%, \textbf{H}_2\textbf{O}, \textbf{SO}_2, \textbf{HF}, \textbf{SF}_4, \textbf{SOF}_2, \textbf{SOF}_4, \textbf{SO}_2\textbf{F}_2, \\ & \textbf{S}_2\textbf{F}_{10}, \textbf{SiF}_4, \textbf{CO}, \textbf{COS}, \textbf{CF}_4, \textbf{C}_2\textbf{F}_6, \textbf{C}_3\textbf{F}_8 \\ \end{tabular}$

Leak location

Detection of leaks up to a rate of approx. 3.43 g/year





Repair

Repairs to measuring instruments are a core service of the WIKA calibration & service centre. Our qualified service technicians will support you in solving problems and ensure that your measuring instrument is fully functional again in a short space of time.

Our range of services

- Competent consulting and technical support by telephone
- Comprehensive function inspection of the measuring instruments
- Complete cleaning of instruments
- Upgrade of measuring instruments and retrofitting of options
- Customised modifications and conversions
- Update of software
- Replacement of wear and tear parts
- Calibration following repair (optional)

On-site repairs

With our calibration vans, we can repair your WIKA pressure gauges directly on-site. Upon request, we can also repair calibration instruments on your premises.

Your benefits

- Qualified service technicians with extensive product knowledge
- Cost estimate after receipt of the measuring instrument
- Service report following each repair carried out
- Use of original parts
- Loan instrument during repairs (optional)
- WIKA transport packaging for your measuring instrument (optional)

Measuring instruments of other manufacturers

Of course, we are able to help you with repairs and calibrations of measuring instruments of other manufacturers – simply contact our service team.

Calibration certificates

Necessity and execution of a calibration

Product quality, operational safety and cost effectiveness relate directly to an accurate and reliable registration of the process variables. Therefore, you should entrust the calibration and maintenance of your measuring instruments to a competent partner. Prior to calibration an evaluation of the calibration capability of the instruments is performed and, if necessary, an adjustment is made.

The calibration is carried out in accordance with the valid directives. The results of the calibration are documented in a calibration certificate and the calibration item receives a calibration mark.

Depending on your requirements you can select either a traceable calibration or a factory calibration.

Comparison of factory and traceable calibrations

Factory calibration

- List of single measured values
- Specification of the applied reference standard
- Traceability of the inspection equipment to the national standard is given, as a rule
- Documentation in an inspection certificate (no formal obligation)
- In accordance with country-specific requirements

→ Inspection certificate per DIN EN 10 204

DKD/DAkkS calibration

- List of single measured values
- Specification of the applied reference standard
- Calculation of mathematical parameters
- Calculation of the expanded measurement uncertainty (as required in ISO 9001)
- Traceability to the national standard of the PTB is guaranteed
- Documentation and graphic illustration in a traceable certificate
- European co-operation for Accreditation ensures worldwide acceptance

→ DKD/DAkkS calibration certificate

Field service for temperature applications

Supervision, installation, welding work, troubleshooting, repair, analysis & inspection

Our qualified personnel support you with the on-site installation and commissioning of your instrumentation, as well as being a competent and available service partner.

We are the right contact for both new projects and maintenance measures during downtime, as well as in the event of an unplanned failure.



Signal transmission and functional testing

Seminars and trainings

Our seminars on the topic of calibration technology let you expand your know-how, further your practical knowledge and keep you abreast of the latest developments. In addition to learning about the theoretical basics, you will be carrying out calibrations yourself, both manually and fully automated, with the aid of tasks in the practical part.

Pressure and temperature calibration

You will learn how to perform calibration with the aid of deadweight testers, pressure controllers and hand test pumps. In addition, you will learn the various calibration methods for temperature measuring instruments (e.g. the fixed point and comparison method). We will also show you how calibration is performed with the aid of water triple and ice points. You will then make your own calibrations, evaluate the results and document them.

Trainings

In addition to our calibration seminars, you also have the option of receiving training customised to your needs. No matter if for one person or a group, on your premises or at WIKA – you design your training.

- Product trainings
- Software trainings

Seminar objectives

You will know

- how calibration is performed
- which instrument you need to choose for which calibration
- which typical sources of error can occur during measurement and how to avoid these

You will know

- the differences between calibration, verification and adjustment
- the standards and directives for a DAkkS-accredited laboratory
- calibration methods and standards



Hotline for calibration and repair

Information on calibration in the WIKA laboratory or on-site calibrations is available from our CT service team.

Monday - Thursday from 7 a.m. - 4 p.m.

Friday from 7 a.m. - 3 p.m.

Phone +49 9372 132-5049 | ctserviceteam@wika.com



Calibration service worldwide

WIKA offers a worldwide network of calibration and service centres.





Hotline for calibration instruments

We would be pleased to assist and advise you in the selection of suitable solutions for extending your equipment pool.

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You can find further information here!

