

## TÜV SÜD – Your Third-Party Test Station

The ATP Test Station at the TÜV SÜD Center of Competence for Refrigeration and Air Conditioning is an accredited DKD calibration laboratory. We are your partner when it comes to ensuring the reliable and cost-efficient operation of your refrigeration facilities, and provide extensive and expert support.

### Our services in brief:

- DKD temperature calibration
- Comparison measurements using a calibrated reference standard, e.g. when checking the refrigeration equipment
- Verification of measurement accuracy in vehicles presented for a periodic check as per the ATP Agreement
- Assessment of the general conditions of refrigerated vehicles and refrigeration machinery
- Approval testing for temperature recorders and thermometers as well as testing pursuant to the following standards EN 12830 (temperature recorders), EN 13485 (thermometers) and EN 13486 (periodic verification)

### Your benefits:

- ▶ You opt for impartiality and expertise
- ▶ You benefit from an accredited partner
- ▶ You can obtain both the TÜV SÜD calibration certificate and the DKD calibration certificate from a single source

Our refrigeration and air-conditioning experts will be happy to assist you in all issues related to the safety, cost-effectiveness and availability of your facilities. Call us! We will be happy to offer expert advice.



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[www.tuev-sued.com](http://www.tuev-sued.com)

# DKD

Accreditation Body of DKD  
Reg.-No. 00701

**Should you have any questions or require additional information, please do not hesitate to contact our experts.**

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**Choose certainty.  
Add value.**

## TÜV SÜD – Your Temperature Calibration Center

TÜV SÜD Industrie Service GmbH

TÜV®

## Key points at a glance

### **1** Why is calibration of temperature recorders and thermometers necessary?

Calibration of temperature recorders and thermometers benefits quality assurance in your company. Calibration ensures that sensors and probes comply with their certified measurement accuracy, enhances your customers' confidence in your company and thus improves your competitiveness on the market. In addition, calibration is required by numerous codes and standards: EN 13485 and 12830, for example, define the required measurement accuracy, and quality standards such as the ISO 9000 series require calibration at regular intervals. The ATP Agreement includes specific measurement tolerances. Among other requirements, the new food hygiene regulations set forth in EC Directive 852/2004 make the traceability of temperature history mandatory; the same applies to TLMV which requires temperature history to be traceable at all times within certain error tolerances.

### **2** Who must take steps to ensure calibration?

Responsibility for the accuracy of temperature measurement rests with the operators of measuring instruments. They must have their temperature recorders and thermometers calibrated before the devices are put into service and thereafter at regular intervals, at least once a year (TLMV).

### **3** What devices need to be calibrated?

All temperature recorders and thermometers applied to measure the air or product temperature which are intended for use in transportation, storage and distribution facilities of refrigerated, frozen or deep-frozen food and ice cream (EN 12830 and EN 13485).

### **4** What determines the calibration interval?

- The type of probe (manufacturer specifications)
- Probe handling and accuracy
- The permissible measurement uncertainty
- International standards

### **5** When is the calibration of a probe required?

- Before it is used for the first time
- After it has been temporarily taken out of service
- After it has been modified (e.g. installation of a new sensor)
- Following an overload (limit values exceeded or not reached)
- Subsequent to mechanical or electrical damage
- Subsequent to a malfunction
- After every change in the measurement chain
- Within the scope of the periodic checks as per the ATP

### **6** Calibration interval for the storage of food products (TLMV)

The accuracy of the temperature measuring instrument must be verified before it is put into service and thereafter at least once a year. A verified or calibrated thermometer must be used for the comparison measurements.

### **7** Calibration interval for the transportation of food products (TLMV)

Comparison measurements are mandatory following installation of the temperature recorder and thereafter once a year. Measurement accuracy for the application in question must be verified at least once every six years.

### **8** Where can you have your equipment calibrated?

To have your equipment calibrated, contact one of the calibration laboratories accredited by the Accreditation Body of Deutscher Kalibrierdienst.

**The Center of Competence for Refrigeration and Air-Conditioning of Munich-based TÜV SÜD Industrie Service GmbH is an accredited DKD calibration laboratory. We will be happy to advise you.**