

Accredited Calibration Services

E+E calibration laboratory for humidity



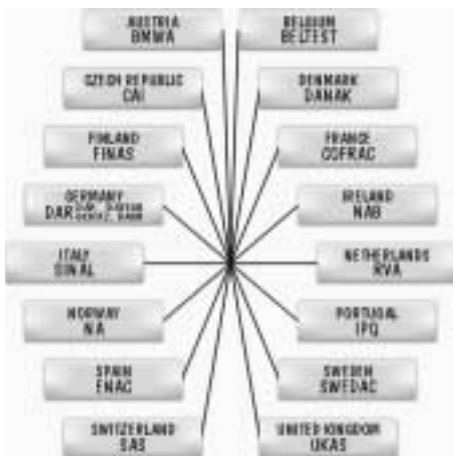
Österreichischer Kalibrierdienst

Calibrations carried out by E+E accredited calibration laboratory allow the user to rely on the reliability of measurement results.

They also serve as a metrological basis for the control of measurement and test equipment within the framework of quality assurance measures.

The E+E calibration laboratory is accredited for relative humidity of air and supervised by BMWA (Federal Ministry for Economic Affairs). It calibrates electric instruments measuring humidity in the range of 10% - 95 %RH at a temperature of 25 degC \pm 3 degC.

The registration number of this calibration laboratory is ÖKD 23. The ÖKD Calibration Certificates prove traceability to national standards as required in the ISO 9000 and EN 45 000 series of European standards.



International recognition

The international recognition of the ÖKD calibration certificates, is guaranteed by BMWA membership in the European co-operation for Accreditation (EA). At present, the calibration services of 24 European countries are members of the EA.

Sixteen of these calibration services, including the BMWA, have concluded a multilateral agreement on the mutual recognition of their calibration certificates.

In addition, similar agreements have been concluded with the following accreditation bodies:



Certificate of Accreditation



Measuring uncertainty

The ÖKD accreditation guarantees following outstanding uncertainty of the E+E calibration laboratory.

RH range	Measuring uncertainty (at 25 degC \pm 3 degC)
10% ... 65%	$\pm(0.25 + 0.006 \times MV \text{ [%RH]})$
65% ... 80%	$\pm(0.32 + 0.007 \times MV \text{ [%RH]})$
80% ... 95%	$\pm(0.82 + 0.005 \times MV \text{ [%RH]})$

(MV = measured value; ÖKD = Österreichischer Kalibrierdienst = Austrian Calibration Service)

Adjustment - Definition

The output of the instrument under test is compared with a reference one. Each deviation is corrected by hardware or software.

All E+E instruments are adjusted before delivery.

Depending on the instrument, the standard adjustment is made in one or two points.

Calibration - Definition

The output of the instrument under test is compared with a reference one. The deviations are documented as calibration certificate, but not changed.

ÖKD certificate - Definition

The ÖKD certificate is issued by the accredited E+E calibration laboratory and for measured values between 10 and 95 %RH at a temperature of 25 ± 3 degC.

E+E works certificate - Definition

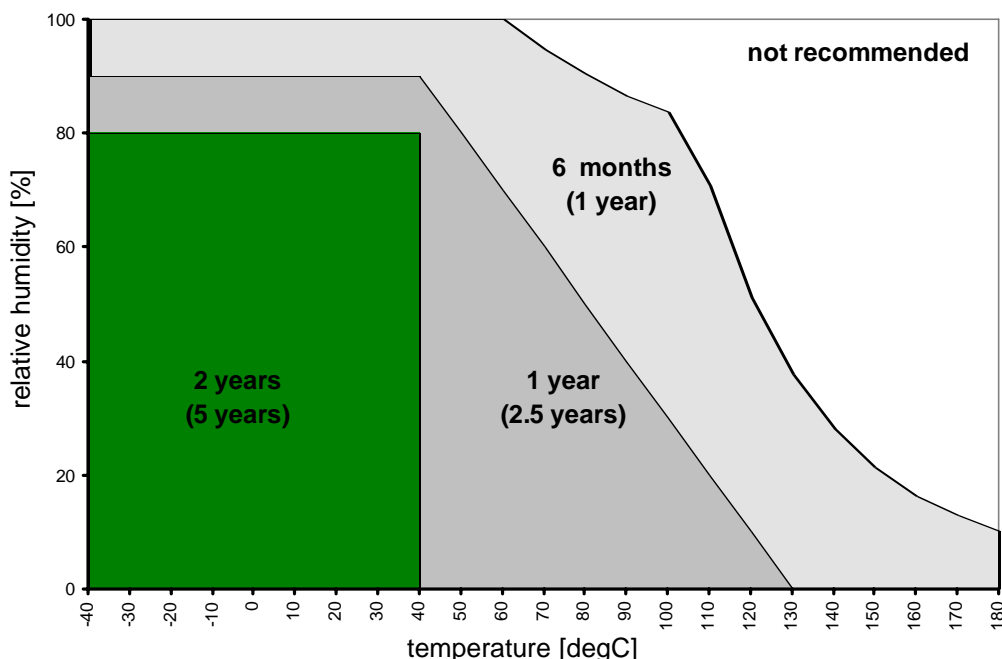
The E+E works certificate is a specific test report according DIN EN 10204-2.3.

It is issued by E+E Elektronik and for measured values between 10 and 95 %RH at a temperature of 23 ± 2 degC.

Maintenance of RH Transmitters

Due to their excellent reliability and long time stability, under normal operation conditions the E+E relative humidity and temperature transmitters do not require any maintenance. For use in high polluted environment the filter cap shall be periodically exchanged with a new original one.

For high accuracy requirements under extreme humidity and temperature working conditions, the transmitters can be periodically recalibrated. The recalibration interval can be extended by a special E+E low - or high-humidity calibration. The following graph shall be used as guide for the recalibration interval:



First value for measurement accuracy in the range ± 2 %RH

Second value for measurement accuracy in the range ± 5 %RH



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Order Information

ÖKD - Certificate

Order Number

ÖKD calibration at three humidity values between 10 and 95 %RH.
If not otherway specified: 30, 50, 80 %RH
T = 25 degC \pm 3 degC

OEKD-CERT/H30-50-80

E+E - Certificate - Humidity

E+E calibration at three humidity values between 10 and 95 %RH.
If not otherway specified: 30, 50, 80 %RH
T = 23 degC \pm 2 degC

E+E-CERT/H30-50-80

E+E - Certificate - Temperature

E+E calibration at three temperature values.
If not otherway specified: 5, 20, 40 degC

E+E-CERT/T5-20-40

E+E - Certificate - Air velocity

E+E calibration at three low air velocity values.
If not otherway specified: 0.5, 1.0, 1.5 m/s
T = 23 degC \pm 2 degC

E+E-CERT/V0.5-1-1.5

E+E - Certificate - Air velocity

E+E calibration at three high air velocity values.
If not otherway specified: 5, 10, 15 m/s
T = 23 degC \pm 2 degC

E+E-CERT/V5-10-15