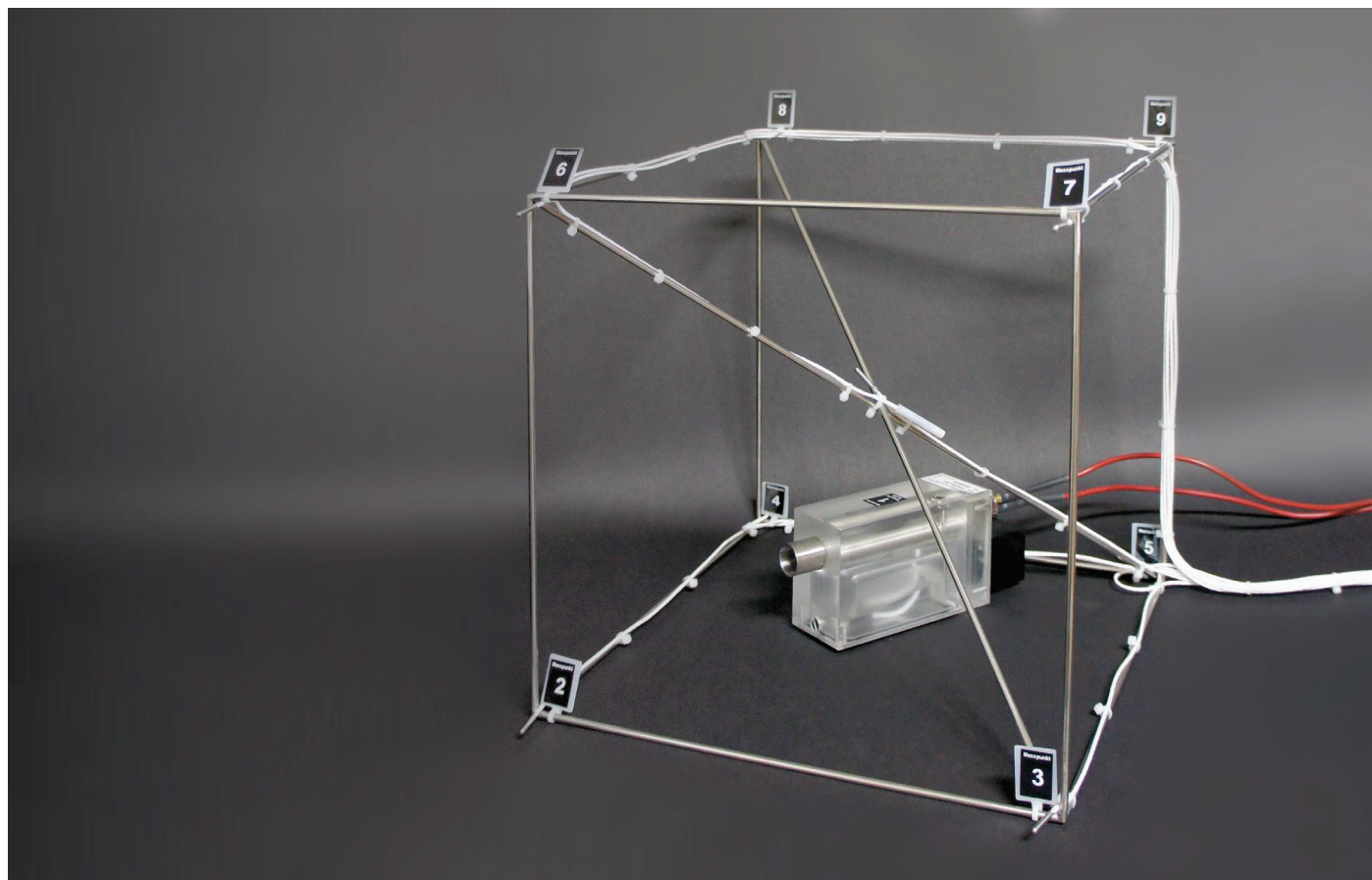


ALMEMO® measuring system for calibrating climatic chambers as per guideline DAkkS-DKD-R 5-7



- Guideline DAkkS-DKD-R 5-7 lays down minimum requirements for the calibration procedure and for the determination of measurement uncertainties when calibrating climatic chambers.
- This guideline describes inter alia the objectives, procedures, and methods of calibration, and the uncertainty components involved.
- The full text of this guideline is available as a PDF document on the home page of the Deutsche Akkreditierungsstelle GmbH (www.dakks.de > Dokumente > Kalibrierlaboratorien) and can be downloaded free-of-charge.

Calibration of relative atmospheric humidity at nine points in the climatic chamber using precision measuring instrument ALMEMO® 710

The ALMEMO® measuring system, comprising precision measuring instrument ALMEMO® 710, one humidity sensor, and eight temperature sensors, can be used to acquire all relevant measurable variables prevalent in the climatic chamber. The relative atmospheric humidity at the nine points in the climatic chamber is calculated in the ALMEMO® 710 itself. Climatic chambers can thus be calibrated in full and on site quickly and easily.

Humidity is calculated in the ALMEMO® 710 on the basis of formulae as per Dr.

Sonntag and the enhancement factor as per W. Bögel (correction factor $F_w(t,p)$) for real mixed gas systems). This substantially widens the measuring range and improves the accuracy of humidity variable calculations.

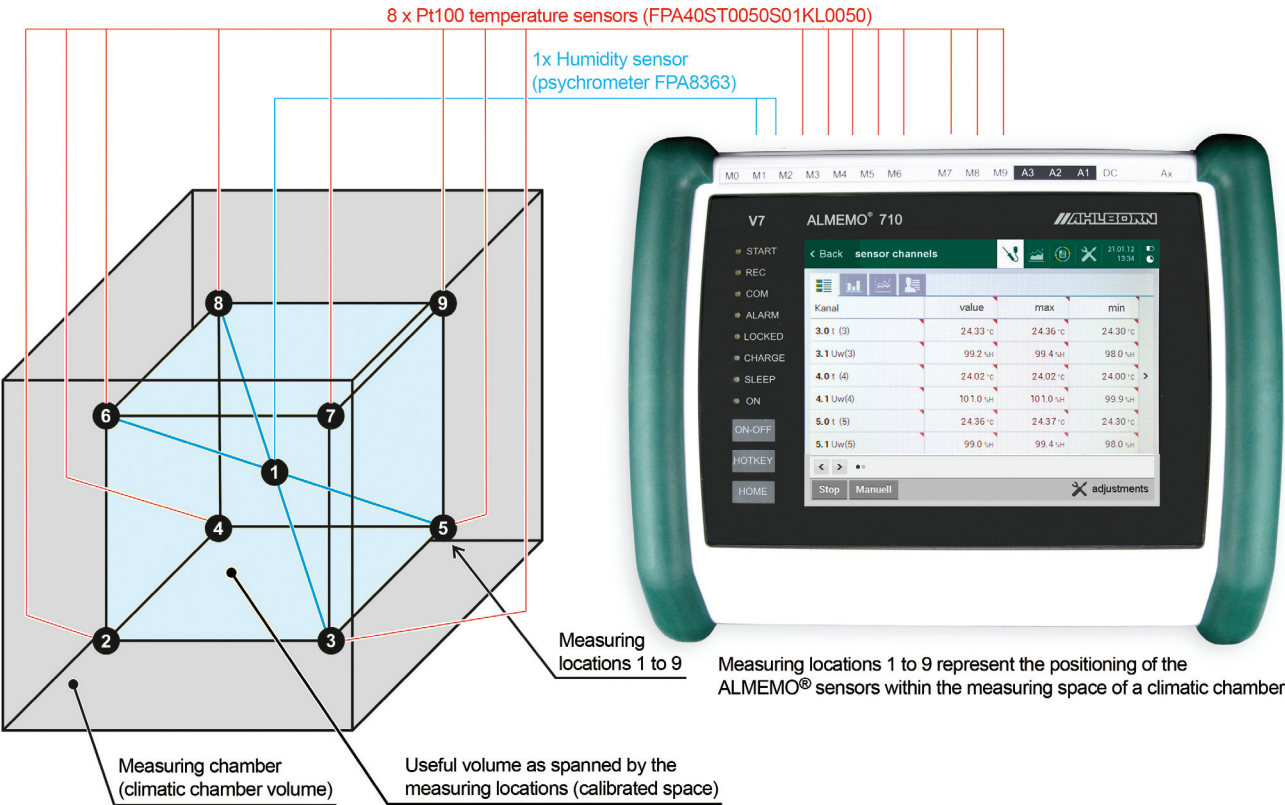
All values, both measured and calculated, are shown in a clear and easy-to-understand way on the ALMEMO® 710's large touch display. The ALMEMO® 710 also operates as a data logger. Measuring series can be saved either to the internal memory (capacity for over 400,000

measured values) or via the ALMEMO® memory connector to an SD card (capacity for several millions of measured values).

WinControl can be used to display and document values e.g. as a line graphic - either online those measured values actually being acquired during a measuring operation or offline after a measuring operation those measured values previously saved. It also provides various evaluation and statistical functions.

Calibrating climatic chambers

10/2016 • We reserve the right to make technical changes.



The ALMEMO® measuring system comprises:

Precision measuring instrument ALMEMO® 710



10 inputs for any ALMEMO® sensors,
atmospheric pressure sensor integrated in the measuring instrument
(with DAkkS calibration certificate).

Precision measuring instrument ALMEMO® 710 including USB cable, mains unit, instrument case, and configuration software ALMEMO® Control DAkkS calibration certificate for atm. pressure sensor five points in range 700 to 1100 mbar	MA710 KD9213D
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Precision measuring instrument ALMEMO® 500



Data acquisition system, Tablet control via app.
20 measuring inputs for any ALMEMO® sensors (expandable).

Data logger ALMEMO® 500 CPU card including interfaces and web service. 4GB SD memory card. 2 active measuring circuit cards MA10 featuring 20 input sockets for all ALMEMO® sensors (standard, DIGI, D6, D7). Mains adapter Control unit with preinstalled app. In desktop housing TG6, 9 free slots Digital atm. pressure sensor, built in the ALMEMO® D6 connector DAkkS calibration certificate for atm. pressure sensor five points in range 700 to 1100 mbar	MA500CPUA20TG6B FDAD12SA KD9213D
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