Deutsche Akkreditierungsstelle GmbH
German Accreditation Body

Annex to the Accreditation Certificate D-K-15202-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 2021-02-02 Date of issue: 2021-02-02

Holder of certificate:

OTT HydroMet Fellbach GmbH

Gutenbergstraße 20, 70736 Fellbach

Calibrations in the fields:

Thermodynamic quantities

Temperature quantities

- Resistance thermometers

- Thermocouples

- Direct-reading thermometers

- Temperature transmitters, data loggers

- Mechanical thermometers

Humidity quantities

- Devices for relative humidity

Mechanical quantities

- Pressure

Fluid quantities

- Velocity of gases

Within the marked with *) accreditation areas is the calibration laboratory, without the prior information and consent of the DAkkS needs, allows the use of here listed standardized calibration methods/calibration directives with different versions.

The calibration laboratory has current list of all standardized calibration methods/calibration directives in the flexible range of application.

Permanent laboratory

Calibration and measurement capabilities

Measured quantity / Calibration item	Range	Measurement conditions / procedure	Best measurement capability [1)]	Remarks
Temperature	0.01 °C	Triple point of water	5 mK	Calibration at temperature fix points
Resistance thermometers	0.0 °C	ice point	10 mK	
Direct reading thermometers and transmitters with resistance sensors *)	–40 °C to 200 °C	stirred liquid bath DKD-R 5-1:2018	15 mK	Comparison with standard resistance thermometers
	–40 °C to 100 °C	calibration test chamber DKD-R 5-1:2018	0.1 K	
	–10 °C to 70 °C	humidity generator with temperature control DKD-R 5-1:2018	0.05 K	
	18 °C to 28 °C	humidity generator without temperature control DKD-R 5-1:2018	0.1 K	
Non-precious metal thermocouples	–40 °C to 200 °C	stirred liquid bath DKD-R 5-3:2018	0.,2 K	Comparison with standard resistance thermometers
Direct reading thermometers and transmitters with non-precious metal thermocouple sensors *)	–40 °C to 100 °C	calibration test chamber DKD-R 5-3:2018	0.3 K	
Mechanical thermometers Thermographs	–40 °C to 200 °C	stirred liquid bath AA N9104_V01:2019	0.2 K	Comparison with standard resistance thermometers
	–40 °C 100 °C	calibration test chamber AA N9104_V01:2019	0.3 K	
	–10 °C 70 °C	humidity generator AA N9104_V01:2019	0.3 K	

[1)] The best measurement capabilities are stated according to DKD-3 (EA-4/02). These are expanded uncertainties of measurement with a coverage probability of 95% and have a coverage factor of $k = 2$ unless stated otherwise. Uncertainties without unit are relative uncertainties referring to the measurement value unless stated otherwise.

Measured quantity / Calibration item	Range	Measurement conditions / procedure	Best measurement capability [1)]	Remarks
relative humidity Hygrometers Hygrographs Transmitters	10 % to 95 %	humidity generator air temperatur: -10 °C to 70 °C AA N9004_V04:2015	0.1 % + 0.0065 · *rH*	Comparison with reference thermometer and dew point mirror *rH* = measured value The measurement uncertainty is an absolute value of relative humidity.
Hygrometers Hygrographs Transmitters Psychrometers	5 % to 98 %	calibration test chamber air temperatur: 5 °C to 95 °C AA N9004_V04:2015	0.2 % + 0.008 · *rH*	
Hygrometers Transmitters	10 % to 95 %	humidity generator air temperatur: ca 23 °C AA N9004_V04:2015	0.5 % + 0.006 · *rH*	Comparison with humidity generator *rH* = measured value The measurement uncertainty is an absolute value of relative humidity.
Absolute pressure Absolute pressure gauges Barometers Transmitters *)	300 mbar to 1200 mbar	Pressure medium: Gas DKD-R 6-1:2014 EURAMET cg-17 Version 3.0	0.10 mbar	Comparison with reference pressure gauge
Velocity of gases Anemometers Pitot tubes	0.1 m/s to 55 m/s	Comparison with LDA AA N9007_V07:2019	0.007 · value, at least 0,02 m/s	Wind tunnel: Göttingen type Nozzle Ø 255 mm

Used abbreviations:

AA	Inhouse Methods of the OTT HydroMet Fellbach GmbH
DKD-R	Calibration Guideline of the German Calibration Service
EURAMET	European Association of National Metrology Institutes
LDA	Laser-Doppler-Anemometer

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