

Translation of the Annex to the accreditation certificate D-K-15055-01-02 according to DIN ISO/IEC 17025:2018

Accreditation for Pressure and Temperature Quantities

German Accreditation Authority

Annex to the accreditation certificate D-K-15055-01-02
according to DIN ISO/IEC 17025:2018

Valid from: 06.03.2026

Date of issue: 06.03.2026

This document annex is part of the accreditation certificate D-K-15055-01-00.

Holder of the accreditation certificate:

europascal GmbH
An der Wiesenhecke 10, 63456 Hanau

With the location:

europascal GmbH
An der Wiesenhecke 10, 63456 Hanau

The calibration laboratory meets the requirements according to DIN EN ISO/IEC 17025:2018 to perform the conformity assessment activities listed in this annex.

The calibration laboratory conforms, where applicable, to additional legal and normative requirements, including those in relevant sectoral programs, provided that these are explicitly confirmed in the annexes to the partial accreditation certificates listed below.

The requirements for the management system in DIN EN ISO/IEC 17025 are written in a language relevant to calibration laboratories and are overall in accordance with the principles of DIN EN ISO 9001.

This document attachment is only valid together with the written accreditation certificate and reflects the status at the time of issue. The current status of valid and monitored accreditation can be found in the database of accredited bodies of the German Accreditation Body (www.dakks.de)

Abbreviations used: see last page Page

Translation of the Annex to the accreditation certificate D-K-15055-01-02

Calibrations in the following scopes:

Thermodynamic measurands

Temperature measuring Quantities

- Direct reading thermometers ^{a)}
- Resistance thermometer ^{a)}
- Temperature block calibrators ^{a)}
- temperature transmitter, Data Logger
- Climatic chambers (temperature) ^{a)}
- Thermocouples (Thermoelements) ^{a)}
- Calibration Bath ^{a)}
- Radiation thermometers ^{a)}
- Temperature reading devices and simulators ^{a)}

^{a)} Also on-site calibrations

For example, we can calibrate the following measuring devices:

- Radiation thermometer: (-15 °C to 1000 °C)
- Infrared thermometer
- Pyrometer
- Thermal imaging cameras
- also calibrators such as surface emitters and black emitters
- Calibration baths (-80 °C to 200 °C)
- Microbaths (-35 °C to +250 °C)
- Resistance thermometer (-200 °C to 850 °C)
- Thermocouples (-200 °C to 1350 °C)
- Temperature block calibrators (-100 °C to 1300 °C)
- Climate cabinets (temperature with and without circulating air) (-70 °C to 180 °C)
- Special measuring devices on request

Humidity measurement parameters

- Measuring instruments for relative humidity^{a)}

^{a)} Also on-site calibrations

For example, we can calibrate the following measuring devices:

- Environmental data loggers

Mechanical measurement quantities

- Pressure ^{a)}

^{a)} Also on-site calibrations

For example, we can calibrate the following measuring devices:

- Piston Gauges / Deadweight Tester
- Pressure Regulators / Pressure Controller
- Reference pressure Indicators
- Pressure Calibrators
- Gauges digital / analog
- Process Transmitter
- Pressure Switches / Modules
- Pressure Sensors / Differential pressure sensors
- Data Loggers
- Barometers

Liability for translation or typographical errors is excluded.

Translation of the Annex to the accreditation certificate D-K-15055-01-02

Accreditation for Pressure

Permanent laboratory

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring conditions / methods	Advanced Measurement uncertainty	Remarks
Pressure Absolute pressure p_{abs}	0,010 mbar to 150 mbar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,22 \mu\text{bar} + 2,8 \cdot 10^{-5} p_{abs}$	Pressure medium: gas The measurement uncertainty of the residual gas pressure measurement is still to be taken into account.
	> 0,15 bar to 4,0 bar		$2,0 \mu\text{bar} + 1,7 \cdot 10^{-5} p_{abs}$	
	> 4,0 bar to 20 bar		$6,0 \mu\text{bar} + 1,7 \cdot 10^{-5} p_{abs}$	
	> 20 bar to 80 bar		$45 \mu\text{bar} + 2,4 \cdot 10^{-5} p_{abs}$	
	> 80 bar to 201 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,15 \text{ mbar} + 2,9 \cdot 10^{-5} p_{abs}$	Pressure medium: gas $p_{abs} = p_e + p_{amb}$ The measurement uncertainty of the barometer is still to be taken into account.
	> 201 bar to 501 bar		$3,2 \cdot 10^{-5} p_{abs}$	
	> 501 bar to 1001 bar		$4,3 \cdot 10^{-5} p_{abs}$	
	0 bar ; 2 bar to 101 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,12 \text{ mbar} + 1,9 \cdot 10^{-5} p_{abs}$	Pressure medium: oil Principle of measurement: $p_{abs} = p_e + p_{amb}$ The measurement uncertainty of the barometer is still to be taken into account
	> 101 bar to 301 bar		$0,65 \text{ mbar} + 2,3 \cdot 10^{-5} p_{abs}$	
	> 301 bar to 501 bar		$2,5 \cdot 10^{-5} p_{abs}$	
	> 501 bar to 701 bar		$5,4 \text{ mbar} + 2,5 \cdot 10^{-5} p_{abs}$	
	> 701 bar to 1201 bar		$5,4 \text{ mbar} + 3,1 \cdot 10^{-5} p_{abs}$	
	> 1201 bar to 2001 bar		$4,2 \cdot 10^{-5} p_{abs}$	
	> 2001 bar to 3001 bar		$26,5 \text{ mbar} + 5,1 \cdot 10^{-5} p_{abs}$	
	> 3001 bar to 5001 bar		$5,8 p_e \cdot 10^{-5} p_{abs}$	
	> 5001 bar to 7001 bar		$0,18 \text{ bar} + 1,5 \cdot 10^{-4} p_{abs}$	
	> 7001 bar to 10.001 bar		$2,5 \cdot 10^{-4} p_{abs}$	
Negative and positive gauge pressure p_e	- 1,0 bar to - 0,15 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$3,5 \mu\text{bar} + 4,0 \cdot 10^{-5} p_e $	Pressure medium: gas
	> - 0,15 bar to 0,15 bar		$0,22 \mu\text{bar} + 2,8 \cdot 10^{-5} p_e $	
	> 0,15 bar to 4,0 bar		$2,0 \mu\text{bar} + 1,0 \cdot 10^{-5} p_e$	
	> 4,0 bar to 20 bar		$6,0 \mu\text{bar} + 1,2 \cdot 10^{-5} p_e$	
	> 20 bar to 80 bar		$45 \mu\text{bar} + 2,2 \cdot 10^{-5} p_e$	
	> 80 bar to 200 bar		$0,15 \text{ mbar} + 2,9 \cdot 10^{-5} p_e$	
	> 200 bar to 500 bar		$3,2 \cdot 10^{-5} p_e$	
	> 500 bar to 1000 bar		$4,3 \cdot 10^{-5} p_e$	
Positive gauge pressure p_e	0 bar; 1 bar to 100 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,12 \text{ mbar} + 1,9 \cdot 10^{-5} p_e$	Pressure medium: oil
	> 100 bar to 300 bar		$2,3 \cdot 10^{-5} p_e$	
	> 300 bar to 500 bar		$2,5 \cdot 10^{-5} p_e$	
	> 500 bar to 700 bar		$5,4 \text{ mbar} + 2,5 \cdot 10^{-5} p_e$	
	> 700 bar to 1200 bar		$5,4 \text{ mbar} + 3,1 \cdot 10^{-5} p_e$	
	> 1200 bar to 2000 bar		$4,2 \cdot 10^{-5} p_e$	
	> 2000 bar to 3000 bar		$26,5 \text{ mbar} + 5,1 \cdot 10^{-5} p_e$	
	> 3000 bar to 5000 bar		$5,8 \cdot 10^{-5} p_e$	
	> 5000 bar to 7000 bar		$0,18 \text{ bar} + 1,5 \cdot 10^{-4} p_e$	
	> 7000 bar to 10.000 bar		$2,5 \cdot 10^{-4} p_e$	

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Translation of the Annex to the accreditation certificate D-K-15055-01-02

Accreditation for Pressure

Permanent laboratory

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring range / Measuring span	Advanced Measurement uncertainty	Remarks
Differential pressure Δp	0 mbar to 150 mbar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,22 \mu\text{bar} + 2,8 \cdot 10^{-5} \cdot \Delta p$	Pressure medium: gas at a static pressure of max. 1 000 mbar

Accreditation for Humidity

Permanent laboratory

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring range / Measuring span	Advanced Measurement uncertainty	Remarks
Humidity Measuring devices for relative humidity Hygrometers, Data loggers, Transmitters	10 % bis 50 %	DKD-R 5-8:2019 in a climate chamber or humidity generator	0,6 %	Comparison with dew point mirror hygrometer Measurement uncertainty expressed as absolute value of relative humidity
	> 50 % bis 90 %	Temperature range: 15 °C to 40 °C	1,3 %	

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Thermodynamic Measuring Quantities

Permanent laboratory

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring range / Measuring span	Advanced Measurement uncertainty	Remarks
Temperature measuring quantities Resistance thermometer, Resistance thermometer with display, Resistance thermometer with transmitter	0 °C	DKD-R 5-1:2018 Ice point	5 mK	Calibration at temperature fixed point
	-100 °C to -62 °C	DKD-R 5-1:2018 in the block calibrator	0,15 K	Comparing with reference thermometer
	> -62 °C to 200 °C		0,10 K	
	> 200 °C to 300 °C		0,15 K	
	> 300 °C to 400 °C		0,20 K	
	> 400 °C to 660 °C		0,30 K	
	-80 °C to 250 °C	DKD-R 5-1:2018 in the liquid bath	0,02 K	
	-80 °C to < -70 °C	DKD-R 5-1:2018 in the climate chamber	2,2 K	
	-70 °C to < 10 °C		0,7 K	
	10 °C to 60 °C		0,15 K	
	>60 °C to 180 °C		0,5 K	
	10 °C to 50 °C	DKD-R 5-1:2018 in the humidity generator	0,3 K	
Precious metal thermocouples, Precious metal thermocouples with display, Precious metal thermocouples with transmitter	200 °C to 300 °C	DKD-R 5-3:2018 in the block calibrator	0,35 K	Comparing with reference thermometer
	>300 °C to 400 °C		0,40 K	
	> 400 °C to 660 °C		0,50 K	
	700 °C to 1000 °C	DKD 5-3:2018 in the tube furnace	2,0 K	
	> 1000 °C to 1200 °C		2,0 K	
	0 °C to 250 °C	DKD-R 5-1:2018 in the liquid bath	0,30 K	
Non-precious metal thermocouples, Non-precious metal thermocouples with display, Non-precious metal thermocouples with transmitter	0 °C	DKD-R 5-3:2018 Ice point t	0,30 K	Calibration at temperature fixed point
	-100 °C to -62 °C	DKD-R 5-3:2018 in a block calibrator	0,35 K	Comparing with reference thermometer
	> -62 °C to 200 °C		0,30 K	
	> 200 °C to 300 °C		0,35 K	
	> 300 °C to 400 °C		0,40 K	
	> 400 °C to 660 °C		0,50 K	
	10 °C to 50 °C	DKD-R 5-1:2018 in the climatic chamber or in the humidity generator	0,30 K	
	-80 °C to 250 °C	DKD-R 5-1:2018 in the liquid bath	0,30 K	

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Thermodynamic Measuring Quantities

Permanent laboratory

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring range / Measuring span	Advanced Measurement uncertainty	Remarks
Temperature-Block calibrators	-100 °C to 155 °C	DKD-R 5-4:2018	0,12 K	Comparing with reference thermometer
	>155 °C to 300 °C		0,15 K	
	> 300 °C to 660 °C		0,35 K	
	> 660 °C to 800 °C		2,5 K	
	> 800 °C to 1000 °C		4,0 K	
	> 1000 °C to 1200 °C		5,0 K	
Calibration baths	-80 °C to 20 °C	AA-T007_V01_09-2021	20 mK	Comparing with reference thermometer
	>20 °C to 200 °C		30 mK	
Radiation thermometers and Radiation sources	-15 °C to 200 °C	VDI/VDE 3511 Sheet 4.4:2005 Method IIa Spectral range 8 µm to 14 µm	0,9 K	
	> 200 °C to 500 °C		1,4 K	
	> 500 °C to 1000 °C		1,7 K	
Temperature indicators and -simulators for resistance thermometers	-200 °C to 850 °C	DKD-R 5-5:2018	$20 \cdot 10^{-6} \cdot t + 2 \text{ mK}$	t = measured value in °C characteristic curve DIN EN 60751:2009
for precious-metal thermocouples	-50 °C to 1750 °C	DKD-R 5-5:2018 with and without compensation for comparable employment	0,10 K	characteristic curve DIN EN 60584-1:2014
for non precious-metal thermocouples	-200 °C to 1350 °C		0,05 K	
Climatic chambers	-70 °C to 0 °C	DKD-R 5-7:2018 Method A and B Medium Air	0,5 K	Comparing with reference thermometer
	> 0 °C to 100 °C		0,3 K	
	> 100 °C to 180 °C		1,1 K	
Measuring positions in climatic chambers	-70 °C to 0 °C	DKD-R 5-7:2018 Method C Medium Air	0,4 K	Comparing with reference thermometer
	> 0 °C to 100 °C		0,3 K	
	> 100 °C to 180 °C		0,6 K	

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Accreditation for Pressure

On-site calibration

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring conditions / methods	Advanced Measurement uncertainty	Remarks
Pressure Absolute pressure p_{abs}	0,010 mbar to 150 mbar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,23 \mu\text{bar} + 2,9 \cdot 10^{-5} p_{abs}$	Pressure medium: gas The measurement uncertainty of the residual gas pressure measurement is still to be taken into account.
	> 0,15 bar to 4,0 bar		$2,1 \mu\text{bar} + 1,8 \cdot 10^{-5} \cdot p_{abs}$	
	> 4,0 bar to 20 bar		$6,3 \mu\text{bar} + 1,8 \cdot 10^{-5} \cdot p_{abs}$	
	> 20 bar to 80 bar		$47 \mu\text{bar} + 2,5 \cdot 10^{-5} \cdot p_{abs}$	
	> 80 bar to 201 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0	$0,17 \text{ mbar} + 2,9 \cdot 10^{-5} p_{abs}$	Pressure medium: gas $p_{abs} = p_e + p_{amb}$ The measurement uncertainty of the barometer is still to be taken into account.
	> 201 bar to 501 bar		$3,2 \cdot 10^{-5} \cdot p_{abs}$	
	> 501 bar to 1001 bar		$4,3 \cdot 10^{-5} \cdot p_{abs}$	
	0 bar ; 2 bar to 101 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,14 \text{ mbar} + 1,9 \cdot 10^{-5} \cdot p_{abs}$	Pressure medium: oil Principle of measurement: $p_{abs} = p_e + p_{amb}$ The measurement uncertainty of the barometer is still to be taken into account
	> 101 bar to 301 bar		$2,3 \cdot 10^{-5} p_{abs}$	
	> 301 bar to 501 bar		$2,5 \cdot 10^{-5} \cdot p_{abs}$	
	> 501 bar to 701 bar		$5,6 \text{ mbar} + 2,5 \cdot 10^{-5} \cdot p_{abs}$	
	> 701 bar to 1201 bar		$5,6 \text{ mbar} + 3,1 \cdot 10^{-5} \cdot p_{abs}$	
	> 1201 bar to 2001 bar		$4,2 \cdot 10^{-5} \cdot p_{abs}$	
	> 2001 bar to 3001 bar		$27 \text{ mbar} + 5,1 \cdot 10^{-5} \cdot p_{abs}$	
	> 3001 bar to 5001 bar		$5,8 p_e 10^{-5} \cdot p_{abs}$	
	> 5001 bar to 7001 bar		$0,19 \text{ bar} + 1,5 \cdot 10^{-4} \cdot p_{abs}$	
	> 7001 bar to 10.001 bar		$2,5 \cdot 10^{-4} \cdot p_{abs}$	
Negative and positive gauge pressure p_e	- 1,0 bar to - 0,15 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$3,7 \mu\text{bar} + 4,2 \cdot 10^{-5} \cdot p_e$	Pressure medium: gas
	> - 0,15 bar to 0,15 bar		$0,23 \mu\text{bar} + 2,9 \cdot 10^{-5} p_e$	
	> 0,15 bar to 4,0 bar		$2,1 \mu\text{bar} + 1,1 \cdot 10^{-5} \cdot p_e$	
	> 4,0 bar to 20 bar		$6,3 \mu\text{bar} + 1,3 \cdot 10^{-5} \cdot p_e$	
	> 20 bar to 80 bar		$47 \mu\text{bar} + 2,3 \cdot 10^{-5} \cdot p_e$	
	> 80 bar to 200 bar		$0,17 \text{ mbar} + 2,9 \cdot 10^{-5} \cdot p_e$	
	> 200 bar to 500 bar		$3,2 \cdot 10^{-5} \cdot p_e$	
	> 500 bar to 1 000 bar		$4,3 \cdot 10^{-5} \cdot p_e$	

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Accreditation for Pressure

On-site calibration

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring conditions / methods	Advanced Measurement uncertainty	Remarks
Positive gauge pressure p_e	0 bar; 1 bar to 100 bar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,14 \text{ mbar} + 1,9 \cdot 10^{-5} \cdot p_e$	Pressure medium: oil
	> 100 bar to 300 bar		$2,3 \cdot 10^{-5} \cdot p_e$	
	> 300 bar to 500 bar		$2,5 \cdot 10^{-5} \cdot p_e$	
	> 500 bar to 700 bar		$5,6 \text{ mbar} + 2,5 \cdot 10^{-5} \cdot p_e$	
	> 700 bar to 1200 bar		$5,6 \text{ mbar} + 3,1 \cdot 10^{-5} \cdot p_e$	
	> 1200 bar to 2000 bar		$4,2 \cdot 10^{-5} \cdot p_e$	
	> 2000 bar to 3000 bar		$27 \text{ mbar} + 5,1 \cdot 10^{-5} \cdot p_e$	
	> 3000 bar to 5000 bar		$5,8 \cdot 10^{-5} \cdot p_e$	
	> 5000 bar to 7000 bar		$0,19 \text{ bar} + 1,5 \cdot 10^{-4} \cdot p_e$	
	> 7000 bar to 10.000 bar		$2,5 \cdot 10^{-4} \cdot p_e$	
Differential pressure Δp	0 mbar to 150 mbar	DKD-R 6-1:2014 EURAMET Calibration Guide No. 17, Version 4.0 EURAMET cg-3, Version 1.0	$0,23 \mu\text{bar} + 2,9 \cdot 10^{-5} \cdot \Delta p$	Pressure medium: gas at a static pressure of max. 1000 mbar

Accreditation for Humidity

Permanent laboratory

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring range / Measuring span	Advanced Measurement uncertainty	Remarks
Humidity Measuring devices for relative humidity Hygrometers, Data loggers, Transmitters	10 % bis 50 %	DKD-R 5-8:2019 in a humidity generator Temperature range: 20 °C to 25 °C	1,5 %	Comparison with relative humidity sensor measurement uncertainty expressed as absolute value of relative humidity
	> 50 % bis 90 %		2,5 %	

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Thermodynamic Measuring Quantities

On-site calibration

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring range / Measuring span	Advanced Measurement uncertainty	Remarks
Temperature measuring quantities Resistance thermometer Resistance thermometer with display, Resistance thermometer with transmitter	0 °C	DKD-R 5-1:2018 Ice point	5 mK	Calibration at temperature fixed point
	-100 °C to -62 °C	DKD-R 5-1:2018 in the block calibrator	0,15 K	Comparing with reference thermometer
	> -62 °C to 200 °C		0,10 K	
	> 200 °C to 300 °C		0,15 K	
	> 300 °C to 400 °C		0,20 K	
	> 400 °C to 660 °C		0,30 K	
	-80 °C to 250 °C	DKD-R 5-1:2018 in the liquid bath	0,02 K	
	-80 °C to < -70 °C	DKD-R 5-1:2018 in the climate chamber	2,2 K	
	-70 °C to < 10 °C		0,7 K	
	10 °C to 60 °C		0,15 K	
	>60 °C to 180 °C		0,5 K	
	10 °C to 50 °C	DKD-R 5-1:2018 in the humidity generator	0,30 K	
Precious metal thermocouples, Precious metal thermocouples with display, Precious metal thermocouples with transmitter	200 °C to 300 °C	DKD-R 5-3:2018 in the block calibrator	0,35 K	Comparing with reference thermometer
	>300 °C to 400 °C		0,40 K	
	> 400 °C to 660 °C		0,50 K	
	700 °C to 1000 °C	DKD 5-3:2018 in the tube furnace	2,0 K	
	> 1000 °C to 1200 °C		2,0 K	
	0 °C to 250 °C	DKD-R 5-1:2018 in the liquid bath	0,30 K	
Non-precious metal thermocouples, Non-precious metal thermocouples with display, Non-precious metal thermocouples with transmitter	0 °C	DKD-R 5-3:2018 Ice point t	0,30 K	Calibration at temperature fixed point
	-100 °C to -62 °C	DKD-R 5-3:2018 in a block calibrator	0,35 K	Comparing with reference thermometer
	>-62 °C to 200 °C		0,30 K	
	> 200 °C to 300 °C		0,35 K	
	> 300 °C to 400 °C		0,40 K	
	> 400 °C to 660 °C		0,50 K	
	10 °C to 50 °C	DKD-R 5-1:2018 in the climatic chamber or in the humidity generator	0,30 K	
	-80 °C to 250 °C	DKD-R 5-1:2018 in the liquid bath	0,30 K	

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Thermodynamic Measuring Quantities

On-site calibration

Calibration and measurement capabilities (CMC)

Measurement quantity / Calibration item	Measuring range / Measuring span	Measuring range / Measuring span	Advanced Measurement uncertainty	Remarks
Temperature-Block calibrators	-100 °C to 155 °C	DKD-R 5-4:2018	0,12 K	Comparing with reference thermometer
	>155 °C to 300 °C		0,15 K	
	> 300 °C to 660 °C		0,35 K	
	> 660 °C to 800 °C		2,5 K	
	> 800 °C to 1000 °C		4,0 K	
	> 1000 °C to 1200 °C		5,0 K	
Calibration baths	-80 °C to 20 °C	AA-T007_V01_09-2021	20 mK	Comparing with reference thermometer
	>20 °C to 200 °C		30 mK	
Radiation thermometers and Radiation sources	-15 °C to 200 °C	VDI/VDE 3511 Sheet 4.4:2005 Method IIa Spectral range 8 µm to 14 µm	0,9 K	
	> 200 °C to 500 °C		1,4 K	
	> 500 °C to 1000 °C		1,7 K	
Temperature indicators and -simulators for resistance thermometers	-200 °C to 850 °C	DKD-R 5-5:2018	$20 \cdot 10^{-6} \cdot t + 2 \text{ mK}$	t = measured value in °C characteristic curve DIN EN 60751:2009
for precious-metal thermocouples	-50 °C to 1750 °C	DKD-R 5-5:2018 with and without compensation for comparable employment	0,10 K	characteristic curve DIN EN 60584-1:2014
for non precious-metal thermocouples	-200 °C to 1350 °C		0,05 K	
Climatic chambers	-70 °C to 0 °C	DKD-R 5-7:2018 Method A and B Medium Air	0,5 K	Comparing with reference thermometer
	> 0 °C to 100 °C		0,3 K	
	> 100 °C to 180 °C		1,1 K	
Measuring positions in climatic chambers	-70 °C to 0 °C	DKD-R 5-7:2018 Method C Medium Air	0,4 K	Comparing with reference thermometer
	> 0 °C to 100 °C		0,3 K	
	> 100 °C to 180 °C		0,6 K	

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Abbreviations used:

CMC	Calibration and measurement capabilities (Kalibrier- und Messmöglichkeiten)
DIN	German institute for standardization e.v.
DKD-R	(Guideline of the German Calibration Service (DKD), published by Physikalisch-Technische Bundesanstalt)
EN	European standard
EURAMET	European Association of National Metrology Institutes
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
p_{amb}	Atmospheric pressure
VDI	Association of German Engineers e. V.
VDE	Association of Electrical, Electronic & Information Technologies e. V.
AA-...	Self-developed calibration method of europascal GmbH

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