

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-K-20615-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 15.02.2021

Date of issue 15.02.2021

Holder of certificate:

**Xylem Analytics Germany GmbH**  
**Dr.-Karl-Slevogt-Straße 1, 82362 Weilheim**

Calibration in the fields:

### **Thermodynamic quantities**

#### **Temperature quantities**

- Resistance thermometers
- Thermocouples
- Direct reading thermometers
- Temperature transmitters, data loggers

#### **Humidity quantities**

- Devices for relative humidity

### **Mechanical quantities**

- Pressure

**Within the measurement quantities/calibration items marked with \*)**, the calibration laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use calibration standards or equivalent calibration procedures listed here with different issue dates.

**The calibration laboratory maintains a current list of all calibration standards / equivalent calibration procedures within the flexible scope of accreditation**

*The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.*

*The certificate together with the annex reflects the status as indicated by the date of issue.*

*The current status of any given scope of accreditation may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

Abbreviations used: see last page

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**This document is a translation. The definitive version is the original German annex to the accreditation certificate.**

Annex to the accreditation certificate D-K-20615-01-00

**Permanent Laboratory**

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement <sup>1)</sup>	Remarks
<b>Temperature</b> Resistance thermometers; direct reading thermometers and data loggers with resistance sensor *)	0 °C	in bath with deionized iced water DKD-R 5-1:2018	15 mK	deionized water (conductivity < 5 µS/cm)
	0,01 °C	Triple point of water DKD-R 5-1:2018	10 mK	Calibration at fixed point temperatures
	-90 °C to -35 °C	in stirred liquid bath DKD-R 5-1:2018	50 mK	Comparison with standard resistance thermometer
	> -35 °C to 250 °C		30 mK	
Base metal thermocouples, direct reading thermometers and data loggers with thermocouple sensor *)	-85 °C to 200 °C	in stirred liquid bath DKD-R 5-3:2018	0,3 K	Comparison with standard resistance thermometer
	> 200 °C to 250 °C		0,5 K	
<b>Relative humidity</b> Hygrometers and transmitters	10 % to 30 %	"Two-pressure" humidity generator, temperature range: 5 °C to 70 °C QMV 7.2.3: 2018-05	0,3 %	Comparison with reference dew point mirror
	> 30 % to 70 %		0,6 %	
	> 70 % to 95 %		0,9 %	Measurement uncertainty expressed in relative humidity
Absolut pressure $p_{abs}$ *)	0 bar to 5 bar	DKD-R 6-1:2014	0,62 mbar	Pressure medium: Gas
	> 5 bar to 25 bar		2,0 mbar	

**Abbreviations used:**

CMC	Calibration and measurement capabilities
DKD-R	Calibration Guide of Deutscher Kalibrierdienst (DKD), published by the Physikalisch-Technischen Bundesanstalt
QMV	In-house procedure of Xylem Analytics Germany GmbH

<sup>1)</sup> The expanded uncertainties according to EA-4/02 M:2013 are part of CMC and are the best measurement uncertainties within accreditation. They have a coverage probability of approximately 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.