

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-K-15108-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 01.12.2021

**Date of issue:** 08.11.2023

Holder of certificate:

**WPD Wartungs- und Prüfungsdienst GmbH  
Am Haupttor Bau 3525, 06237 Leuna**

Calibration in the fields:

**Fluid quantities**

- **Volume of flowing liquids** <sup>a)</sup>
- **Mass of flowing liquids** <sup>a)</sup>

<sup>a)</sup> also on-site calibration

*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 can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de/en/accredited-bodies-search.html>.*

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-15108-01-00**

**Permanent Laboratory**

**Calibration and Measurement Capabilities (CMC)**

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded measurement of uncertainty <sup>1)</sup>	Remarks
Volume of flowing liquids	0,01 L to 6000 L	AA-02-108:2021-05-04	0,07 %	Static weighing method, standing start/stop liquid to be measured: water conversion by using density flow range: 0,01 L/min to 6000 L/min
	2 L to 6000 L	AA-02-012:2010-01-21	0,08 %	Volume prover liquid to be measured: mineral oil flow range: 0,01 L/min to 6000 L/min volume tank: 2 L, 5 L, 10 L, 20 L, 50 L, 200 L, 300 L, 500 L, 1000 L, 2000 L, 3000 L, 6000 L
	≥ 0,5 L	AA-02-019:2018-12-12	0,16 %	Master meter method, standing start/stop liquid to be measured: mineral oil flow range: 0,5 L/min to 5000 L/min volume dependent on measuring time
	≥ 3 L	AA-02-019:2018-12-12	0,16 %	Master meter method, flying start/stop liquid to be measured: water flow range: 3 L/min to 6000 L/min volume dependent on measuring time
Mass of flowing liquids	0,01 kg to 6000 kg	AA-02-108:2021-05-04	0,07 %	Static weighing method, standing start/stop liquid to be measured: water flow range: 0,01 kg/min to 6000 kg/min
	≥ 3 kg	AA-02-019:2018-12-12	0,16 %	Master meter method, flying start/stop liquid to be measured: water flow range: 3 kg/min to 6000 kg/min mass dependent on measuring time

<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.

**On-site Calibration**

Calibration and Measurement Capabilities (CMC)				
Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded measurement of uncertainty <sup>1)</sup>	Remarks
Volume of flowing liquids	≥ 2 L	AA-02-019:2018-12-12	0,1 %	Master meter method, standing or flying start/stop, Coriolis mass flowmeter flow range: 2 L/min to 4500 L/min temperature range: 0 °C to 50 °C range of kin. viscosity: to 60 mm <sup>2</sup> /s volume dependent on measuring time
	≥ 2 L	AA-02-019:2018-12-12	0,3 %	Master meter method, standing or flying start/stop, Coriolis mass flowmeter flow range: 2 L/min to 4500 L/min temperature range: > 50 °C to 180 °C range of kin. viscosity: > 60 mm <sup>2</sup> /s to 150 mm <sup>2</sup> /s volume dependent on measuring time
Mass of flowing liquids	≥ 2 kg	AA-02-019:2018-12-12	0,1 %	Master meter method, standing or flying start/stop, Coriolis mass flowmeter flow range: 2 kg/min to 4500 kg/min temperature range: 0 °C to 50 °C range of kin. viscosity: to 60 mm <sup>2</sup> /s mass dependent on measuring time
	≥ 2 kg	AA-02-019:2018-12-12	0,3 %	Master meter method, standing or flying start/stop, Coriolis mass flowmeter flow range: 2 kg/min to 4500 kg/min temperature range: > 50 °C to 180 °C range of kin. viscosity: > 60 mm <sup>2</sup> /s to 150 mm <sup>2</sup> /s mass dependent on measuring time

**Abbreviations used:**

AA Calibration procedure of WPD Wartungs- und Prüfungsdienst GmbH  
 CMC Calibration and measurement capabilities (Kalibrier- und Messmöglichkeiten)  
 DIN Deutsches Institut für Normung e.V.

<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.