

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-K-15166-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 01.08.2019

Date of issue: 01.08.2019

Holder of certificate:

KEM Küppers Elektromechanik GmbH

with its calibration laboratory

Wetzeller Straße 22, 93444 Bad Kötzing

Calibration in the fields:

Fluid Quantities

- **Liquid flow rate**
- **Volume of flowing liquids**
- **Mass of flowing liquids**

Abbreviations used: see last page

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Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement ¹⁾	Remarks
Mass of flowing liquids	0.9 kg to 8 kg	dynamic weighing method	0.05 %	Measured fluid: fluids with a density from $\rho = 650 \text{ kg/m}^3$ to $\rho = 1000 \text{ kg/m}^3$ and a viscosity from $\nu = 1 \text{ mm}^2/\text{s}$ to $\nu = 100 \text{ mm}^2/\text{s}$
	90 kg to 600 kg			
Liquid flow rate Mass flow rate dm/dt	0.015 kg/min to 1500 kg/min			
Volume of flowing liquids	1 L to 10 L	dynamic weighing method; conversion by using density	0.1 %	
	100 L to 800 L			
Liquid flow rate Volume flow rate dV/dt	0.016 L/min to 2000 L/min			

Abbreviations used:

CMC Calibration and measurement capabilities (Kalibrier- und Messmöglichkeiten)

¹⁾ 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.