DAkkS
Deutsche
Akkreditierungsstelle

# Deutsche Akkreditierungsstelle GmbH

**Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV**
Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

# Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the calibration laboratory

**KEM Küppers Elektromechanik GmbH**
**Wettzeller Straße 22, 93444 Bad Kötzting**

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out calibrations in the following fields:

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

The accreditation certificate shall only apply in connection with the notice of accreditation of 01.08.2019 with the accreditation number D-K-15166-01-00. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 2 pages.

Registration number of the certificate: **D-K-15166-01-00**

| | | | |
|---|---|---|---|
| Braunschweig,<br>01.08.2019 | Dr. Heike Manke<br>Head of Division | Translation issued:<br>01.08.2019 | Head of Division |

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.*
*https://www.dakks.de/en/content/accredited-bodies-dakks*

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

See notes overleaf.

# Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

Office Frankfurt am Main
Europa-Allee 52
60327 Frankfurt am Main

Office Braunschweig
Bundesallee 100
38116 Braunschweig



The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkkS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:
EA: www.european-accreditation.org
ILAC: www.ilac.org
IAF: www.iaf.nu

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# 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

**Wettzeller Straße 22, 93444 Bad Kötzting**

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 kg/m³ to $\rho$ = 1000 kg/m³ and a viscosity from $\nu$ = 1 mm²/s to $\nu$ = 100 mm²/s |
| | 90 kg to 600 kg | | | |
| **Liquid flow rate** Mass flow rate d*m*/d*t* | 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 d*V*/d*t* | 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.