

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

Erichsen GmbH & Co. KG
Am Iserbach 14, 58675 Hemer

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

mechanical quantities

- Mass (weights)
- Pressure

dimensional quantities

- length
 - Length measuring instruments

The accreditation certificate shall only apply in connection with the notice of accreditation of 14.10.2020 with the accreditation number D-K-21247-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 3 pages.

Registration number of the certificate: **D-K-21247-01-00**

Berlin,
14.10.2020

Dr Heike Manke
Head of Division

Translation issued:
19.03.2021


Head of Division

*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>.*

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

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

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The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkKS.

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

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-K-21247-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 14.10.2020

Date of issue 14.10.2020

Holder of certificate:

Erichsen GmbH & Co. KG
Am Iserbach 14, 58675 Hemer

Calibration in the fields:

mechanical quantities

- Mass (weights)*)
- Pressure*)

dimensional quantities

- Length
 - Length measuring instruments

Within the scope of accreditation 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-21247-01-00

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement ¹⁾	Remarks	
Mass ^{*)}	1 g	OIML R 111-1:2004	1,0 mg	for weight pieces according to OIML recommendation R 111-1:2004, Class M ₂	
	2 g		1,2 mg		
	5 g		1,6 mg		
	10 g		2,0 mg		
	20 g		2,5 mg		
	50 g		3,0 mg		
	100 g		5,0 mg		
	200 g		10 mg		
	500 g		25 mg		
	1 kg		50 mg		
	2 kg		100 mg		
	5 kg		800 mg		for weight pieces according to OIML recommendation R 111-1:2004, Class M ₃
	1 g to 2 g		1,2 mg		for free nominal values
	> 2 g to 5 g		1,6 mg		
	> 5 g to 10 g		2,0 mg		
	> 10 g to 20 g		2,5 mg		
	> 20 g to 50 g		3,0 mg		
	> 50 g to 100 g		1,6 mg		
	> 100 g to 200 g		3,0 mg		
	> 200 g to 420 g		8,0 mg		
	> 420 g to 500 g		25 mg		
	> 500 g to 800 g		50 mg		
	> 800 g to 1 kg		50 mg		
	> 1 kg to 2 kg		100 mg		
	> 2 kg to 2,2 kg		800 mg		
	> 2,2 kg to 5 kg		800 mg		
	> 5 kg to 6 kg		1,6 · 10 ³ mg		

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.

Annex to the accreditation certificate D-K-21247-01-00

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement ¹⁾	Remarks
Pressure^{*)} positive gauge pressure p_e	0 bar to 1 bar	DKD-R 6-1:2014	10 mbar	overpressure in fluid media p_e in bar
	> 1 bar to 10 bar		$4,0 \cdot 10^{-3} \cdot p_e$ but not less than 8 mbar	
	> 10 bar to 100 bar		$2,0 \cdot 10^{-3} \cdot p_e$ but not less than 20 mbar	
	> 100 bar to 500 bar		$2,0 \cdot 10^{-3} \cdot p_e$ but not less than 0,3 bar	
Length	0 mm to 12,5 mm	KA_02d_length:2020 height measurement	1,0 μ m	b: base length the calibration items $13 \text{ mm} \leq b \leq 240 \text{ mm}$ Height measurement over a flat reference surface

Abbreviations used:

CMC	Calibration and measurement capabilities (Kalibrier- und Messmöglichkeiten)
DKD-R	Calibration guide issued by Deutscher Kalibrierdienst (DKD), published by Physikalisch-Technische Bundesanstalt
KA	In-house procedure of the calibration laboratory
OIML	International Organization of legal Metrology

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.