Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-K-15049-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **16.12.2020**

Date of issue 16.12.2020

Holder of certificate:

IBA Dosimetry GmbH
Bahnhofstraße 5, 90592 Schwarzenbruck

Calibration in the fields:

Electrical quantities

DC and low frequency quantities

- **DC current**

Ionising radiation and radioactivity

- **Dosimetry**
- **Radiation protection**

The management system requirements in DIN EN ISO/IEC 17025 are written in language relevant to operations of calibration laboratories and operate generally in accordance with the principles of DIN EN ISO 9001.

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

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement [1)]	Remarks
Air Kerma rate	1 mGy/min to 200 mGy/min	40 kV to 280 kV Cobalt 60	1.2 %	
	100 mGy/min to 5 Gy/min		1.0 %	
Air Kerma	1 mGy to 10 Gy	40 kV to 280 kV Cobalt 60	1.2 %	
	100 mGy to 20 Gy		1.0 %	
Kerma area product	20 pGy m^2 to 100 µGy m^2	40 kV to 160 kV Cobalt 60	1.8 %	
Kerma length product	0.1 µGy m to 1 mGy m	40 kV to 160 kV Cobalt 60	1.8 %	
Absorbed dose rate to water	5 mGy/min to 100 mGy/min	20 kV to 100 kV Cobalt 60	3.2 %	
	1 mGy/min to 300 mGy/min	120 kV to 280 kV Cobalt 60	2.3 %	
	100 mGy/min to 5 Gy/min	120 kV to 280 kV Cobalt 60	1.0 %	
Absorbed dose to water	5 mGy to 3 Gy	20 kV to 100 kV Cobalt 60	3.5 %	
	1 mGy to 5 Gy	120 kV to 280 kV Cobalt 60	2.3 %	
	100 mGy to 20 Gy	120 kV to 280 kV Cobalt 60	1.0 %	
	1 Gy to 20 Gy	6 MV to 15 MV Cobalt 60	1.6 %	
	1 Gy to 20 Gy	6 MeV to 15 MeV Cobalt 60	2.2 %	
DC current Measuring instruments	1 pA to 19.9 pA		0.5 %	
	20 pA to 199 pA		0.3 %	
	200 pA to 10 µA		0.2 %	

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.

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