Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-K-12161-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **03.09.2025**

Date of issue: 03.09.2025

This annex is part of the Accreditation Certificate D-K-12061-01-00.

Holder of the Accreditation Certificate:

Phoenix Contact GmbH & Co. KG
Flachsmarktstraße 8, 32825 Blomberg

with the location

Phoenix Contact GmbH & Co. KG
Flachsmarktstraße 8, 32825 Blomberg

The calibration laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The calibration laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

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

This annex to the certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS) and is digitally sealed.
This annex to the certificate is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

Calibration in the fields:

Dimensional quantities

Length

- **Length measuring instruments**
- **Diameter**
- **Thread**

Electrical quantities

DC and low frequency quantities

- **DC voltage**
- **AC voltage**
- **DC current**
- **AC current**
- **DC resistance**

Time and frequency

- **Frequency**
- **Time interval**

DAkkS Deutsche Akkreditierungsstelle

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
Length				
Calipers for external. internal and depth dimensions	0 mm to 150 mm	VDI/VDE/DGQ 2618 Part 9.1:2006	30 µm + 30 · 10^{-6} · l	l = measured length
Depth calipers	0 mm to 150 mm	VDI/VDE/DGQ 2618 Part 9.2 2006	30 µm + 30 · 10^{-6} · l	
Micrometers	0 mm to 75 mm	VDI/VDE/DGQ 2618 Part 10.1:2001	3 µm + 10 · 10^{-6} · l	
Dial gauges	to 12 mm	VDI/VDE/DGQ/DKD 2618 Part 11.4:2020	3 µm + 10 · 10^{-6} · l	
Dial gauges	to 12 mm	VDI/VDE/DGQ/DKD 2618 Part 11.1:2021	3 µm + 10 · 10^{-6} · l	
Lever gauges	to 1.6 mm	VDI/VDE/DGQ 2618 Part 11.3:2002	2 µm	
Setting ring gauges Diameter	2.5 mm to 200 mm	VDI/VDE/DGQ 2618 Part 4.1:2006 Option 3 Option 4	2 µm + 10 · 10^{-6} · d	d = measured diameter
Setting plug gauges Diameter	5 mm to 30 mm	VDI/VDE/DGQ 2618 Part 4.1:2006 Option 3 Option 4	2 µm + 10 · 10^{-6} · d	
Measuring pins Diameter	0.1 mm to 20 mm	VDI/VDE/DGQ 2618 Part 4.2:2007 Option 1	2 µm	
Thread Metrical ISO-thread				
External thread Simple pitch diameter	1.6 mm to 27 mm	VDI/VDE/DGQ 2618 Part 4.8:2006 Option 1 Three wire procedure (vertical to thread axis)	5 µm	
Internal thread Simple pitch diameter	2.5 mm to 35 mm	VDI/VDE/DGQ 2618 Part 4.9:2006 Option 1 Two ball procedure (vertical to thread axis)	4 µm	

DAkkS Deutsche Akkreditierungsstelle

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
DC and low frequency quantities				
DC voltage Measuring instruments	0 mV to < 220 mV		$7.1 \cdot 10^{-6} \cdot U + 0.4\ \mu V$	U = set value with Fluke 5730A
	0.22 V to < 2.2 V		$4.9 \cdot 10^{-6} \cdot U + 0.62\ \mu V$	
	2.2 V to < 11 V		$4.5 \cdot 10^{-6} \cdot U$	
	11 V to < 22 V		$3.6 \cdot 10^{-6} \cdot U$	
	22 V to < 220 V		$6.6 \cdot 10^{-6} \cdot U$	
	220 V to 1100 V		$8.1 \cdot 10^{-6} \cdot U$	
Sources	0 V to < 0.1 V		$5.4 \cdot 10^{-6} \cdot U + 0.21\ \mu V$	U = measured value with Fluke 8588A
	0.1 V to < 1 V		$3 \cdot 10^{-6} \cdot U + 0.3\ \mu V$	
	1 V to < 10 V		$3.5 \cdot 10^{-6} \cdot U$	
	10 V to < 100 V		$7.4 \cdot 10^{-6} \cdot U$	
	100 V to 1050 V		$9.5 \cdot 10^{-6} \cdot U$	
	100 V bis 200 V		$8 \cdot 10^{-6} \cdot U$	U = measured value with Agilent 3458A
	> 200 V bis 400 V		$9 \cdot 10^{-6} \cdot U$	
AC voltage Measuring instruments	0.22 mV to < 22 mV	10 Hz to 20 Hz	$25 \cdot 10^{-5} \cdot U + 4.5\ \mu V$	U = set value with Fluke 5730A
		> 20 Hz to 40 Hz	$12 \cdot 10^{-5} \cdot U + 3.9\ \mu V$	
		> 40 Hz to 20 kHz	$11 \cdot 10^{-5} \cdot U + 3.9\ \mu V$	
		> 20 kHz to 50 kHz	$22 \cdot 10^{-5} \cdot U + 3.9\ \mu V$	
		> 50 kHz to 100 kHz	$49 \cdot 10^{-5} \cdot U + 4.7\ \mu V$	
		> 100 kHz to 300 kHz	$11 \cdot 10^{-4} \cdot U + 9.3\ \mu V$	
		> 300 kHz to 500 kHz	$14 \cdot 10^{-4} \cdot U + 20\ \mu V$	
		> 500 kHz to 1 MHz	$27 \cdot 10^{-4} \cdot U + 20\ \mu V$	
	22 mV to < 220 mV	10 Hz to 20 Hz	$78 \cdot 10^{-5} \cdot U$	
		> 20 Hz to 40 Hz	$38 \cdot 10^{-5} \cdot U$	
		> 40 Hz to 20 kHz	$34 \cdot 10^{-5} \cdot U$	
		> 20 kHz to 50 kHz	$41 \cdot 10^{-5} \cdot U$	
		> 50 kHz to 100 kHz	$11 \cdot 10^{-4} \cdot U$	
		> 100 kHz to 300 kHz	$15.5 \cdot 10^{-4} \cdot U$	
		> 300 kHz to 500 kHz	$24 \cdot 10^{-4} \cdot U$	
		> 500 kHz to 1 MHz	$47 \cdot 10^{-4} \cdot U$	

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
AC voltage Measuring instruments	0.22 V to < 2.2 V	10 Hz to 20 Hz	$43 \cdot 10^{-5} \cdot U$	U = set value with Fluke 5730A
		> 20 Hz to 40 Hz	$16 \cdot 10^{-5} \cdot U$	
		> 40 Hz to 20 kHz	$8 \cdot 10^{-5} \cdot U$	
		> 20 kHz to 50 kHz	$11 \cdot 10^{-5} \cdot U$	
		> 50 kHz to 100 kHz	$23 \cdot 10^{-5} \cdot U$	
		> 100 kHz to 300 kHz	$67 \cdot 10^{-5} \cdot U$	
		> 300 kHz to 500 kHz	$1.9 \cdot 10^{-3} \cdot U$	
		> 500 kHz to 1 MHz	$3 \cdot 10^{-3} \cdot U$	
	2.2 V to < 22 V	10 Hz to 20 Hz	$43 \cdot 10^{-5} \cdot U$	
		> 20 Hz to 40 Hz	$16 \cdot 10^{-5} \cdot U$	
		> 40 Hz to 20 kHz	$7 \cdot 10^{-5} \cdot U$	
		> 20 kHz to 50 kHz	$11 \cdot 10^{-5} \cdot U$	
		> 50 kHz to 100 kHz	$17 \cdot 10^{-5} \cdot U$	
		> 100 kHz to 300 kHz	$52 \cdot 10^{-5} \cdot U$	
		> 300 kHz to 500 kHz	$1.9 \cdot 10^{-3} \cdot U$	
		> 500 kHz to 1 MHz	$2.9 \cdot 10^{-3} \cdot U$	
	22 V to < 220 V	10 Hz to 20 Hz	$43 \cdot 10^{-5} \cdot U$	
		> 20 Hz to 40 Hz	$17 \cdot 10^{-5} \cdot U$	
		> 40 Hz to 20 kHz	$9 \cdot 10^{-5} \cdot U$	
		> 20 kHz to 50 kHz	$13 \cdot 10^{-5} \cdot U$	
		> 50 kHz to 100 kHz	$26 \cdot 10^{-5} \cdot U$	
	220 V to 1100 V	50 Hz to 1 kHz	$9 \cdot 10^{-5} \cdot U$	

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
AC voltage Sources	1 mV to < 10 mV	10 Hz to 2 kHz	$2.9 \cdot 10^{-4} \cdot U + 1.1\ \mu V$	U = measured value with Fluke 8588A
		> 2 kHz to 10 kHz	$3.55 \cdot 10^{-4} \cdot U + 1.1\ \mu V$	
		> 10 kHz to 30 kHz	$3.65 \cdot 10^{-4} \cdot U + 1.1\ \mu V$	
		> 30 kHz to 100 kHz	$3.1 \cdot 10^{-3} \cdot U + 0.78\ \mu V$	
		> 100 kHz to 300 kHz	$1 \cdot 10^{-2} \cdot U + 3.9\ \mu V$	
		> 300 kHz to 1 MHz	$2 \cdot 10^{-2} \cdot U + 3.9\ \mu V$	
	10 mV to < 10 V	10 Hz to 2 kHz	$1.5 \cdot 10^{-4} \cdot U$	
		> 2 kHz to 10 kHz	$1.7 \cdot 10^{-4} \cdot U$	
		> 10 kHz to 30 kHz	$3.2 \cdot 10^{-4} \cdot U$	
		> 30 kHz to 100 kHz	$11 \cdot 10^{-4} \cdot U$	
		> 100 kHz to 300 kHz	$52 \cdot 10^{-4} \cdot U$	
		> 300 kHz to 1 MHz	$21 \cdot 10^{-3} \cdot U$	
	10 V to < 100 V	10 Hz to 2 kHz	$2.1 \cdot 10^{-4} \cdot U$	
		> 2 kHz to 10 kHz	$1.7 \cdot 10^{-4} \cdot U$	
		> 10 kHz to 30 kHz	$3.3 \cdot 10^{-4} \cdot U$	
		> 30 kHz to 100 kHz	$11 \cdot 10^{-4} \cdot U$	
		> 100 kHz to 300 kHz	$82 \cdot 10^{-4} \cdot U$	
		> 300 kHz to 1 MHz	$61 \cdot 10^{-3} \cdot U$	
	100 V to 1050 V	10 Hz to 2 kHz	$3.5 \cdot 10^{-4} \cdot U$	
		> 2 kHz to 10 kHz	$3.5 \cdot 10^{-4} \cdot U$	
		> 10 kHz to 30 kHz	$5 \cdot 10^{-4} \cdot U$	
		> 30 kHz to 100 kHz	$16 \cdot 10^{-4} \cdot U$	
DC current Measuring instruments	0 µA to < 220 µA		$39 \cdot 10^{-6} \cdot I + 5.5\ nA$	I = set value with Fluke 5730A
	0.22 mA to < 2.2 mA		$60 \cdot 10^{-6} \cdot I$	
	2.2 mA to < 22 mA		$51 \cdot 10^{-6} \cdot I$	
	22 mA to < 220 mA		$69 \cdot 10^{-6} \cdot I$	
	0.22 A to 2.2 A		$126 \cdot 10^{-6} \cdot I$	
	2 A to < 20 A		$1.35 \cdot 10^{-4} \cdot I + 1.5\ mA$	I = set value with Fluke 5730A/52120A
	20 A to 100 A		$1.2 \cdot 10^{-4} \cdot I + 7.7\ mA$	

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
DC current Measuring instruments	0 A to < 10 µA		$25 \cdot 10^{-6} \cdot I + 0.44$ nA	I = measured value with Fluke 8588A
	10 µA to < 100 µA		$11 \cdot 10^{-6} \cdot I + 0.4$ nA	
	0.1 mA to < 1 mA		$11 \cdot 10^{-6} \cdot I + 3.9$ nA	
	1 mA to < 10 mA		$11 \cdot 10^{-6} \cdot I + 38$ nA	
	10 mA to < 100 mA		$34 \cdot 10^{-6} \cdot I + 1.1$ µA	
	0.1 A to < 1 A		$1.01 \cdot 10^{-4} \cdot I + 0.1$ mA	
	1 A to < 10 A		$1.75 \cdot 10^{-4} \cdot I + 0.41$ mA	
	10 A to 30 A		$4.92 \cdot 10^{-4} \cdot I + 4.4$ mA	
	0 A bis 1,2 µA		$0,2 \cdot 10^{-3} \cdot I + 0,1$ nA	I = measured value with Agilent 3458A
	> 1,2 µA bis 12 µA		$0,24 \cdot 10^{-3} \cdot I$	
	> 12 µA bis 120 µA		$69 \cdot 10^{-6} \cdot I$	
	> 0,12 mA bis 12 mA		$74 \cdot 10^{-6} \cdot I$	
	> 12 mA bis 120 mA		$83 \cdot 10^{-6} \cdot I$	
	> 120 mA bis 1,05 A		$0,22 \cdot 10^{-3} \cdot I$	
	30 A bis 500 A		$4,9 \cdot 10^{-3} \cdot I$	I = measured value
	> 500 A bis 2000 A			
DC current Current clamps	20 A to 1000 A		$5.5 \cdot 10^{-3} \cdot I$	
	100 A to 5000 A		$30 \cdot 10^{-3} \cdot I$	I = set value
AC current Measuring instruments	1 µA to < 220 µA	20 Hz to 40 Hz	$1.7 \cdot 10^{-4} \cdot I + 10$ nA	I = set value with Fluke 5730A
		> 40 Hz to 1 kHz	$1.1 \cdot 10^{-4} \cdot I + 8$ nA	
		> 1 kHz to 5 kHz	$2.8 \cdot 10^{-4} \cdot I + 12$ nA	
		> 5 kHz to 10 kHz	$1.1 \cdot 10^{-3} \cdot I + 62$ nA	
	0.22 mA to < 2.2 mA	> 20 Hz to 40 Hz	$3.5 \cdot 10^{-4} \cdot I$	
		> 40 Hz to 1 kHz	$2.4 \cdot 10^{-4} \cdot I$	
		> 1 kHz to 5 kHz	$6.5 \cdot 10^{-4} \cdot I$	
		> 5 kHz to 10 kHz	$39 \cdot 10^{-4} \cdot I$	
	2.2 mA to < 22 mA	> 20 Hz to 40 Hz	$3 \cdot 10^{-4} \cdot I$	
		> 40 Hz to 1 kHz	$2.4 \cdot 10^{-4} \cdot I$	
		> 1 kHz to 5 kHz	$4.5 \cdot 10^{-4} \cdot I$	
		> 5 kHz to 10 kHz	$32 \cdot 10^{-4} \cdot I$	

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
AC current Measuring instruments	22 mA to < 220 mA	> 20 Hz to 40 Hz	$3 \cdot 10^{-4} \cdot I$	I = set value with Fluke 5730A
		> 40 Hz to 1 kHz	$2.2 \cdot 10^{-4} \cdot I$	
		> 1 kHz to 5 kHz	$3.5 \cdot 10^{-4} \cdot I$	
		> 5 kHz to 10 kHz	$15 \cdot 10^{-4} \cdot I$	
	0.22 A to < 2.2 A	20 Hz to 1 kHz	$3.9 \cdot 10^{-4} \cdot I$	
		> 1 kHz to 5 kHz	$7.5 \cdot 10^{-4} \cdot I$	
		> 5 kHz to 10 kHz	$70 \cdot 10^{-4} \cdot I$	
	2 A to < 20 A	20 Hz to 850 Hz	$4 \cdot 10^{-4} \cdot I$	I = set value with Fluke 5730A/52120A
		> 850 Hz to 6 kHz	$7.5 \cdot 10^{-4} \cdot I$	
	20 A to 120 A	20 Hz to 850 kHz	$3 \cdot 10^{-4} \cdot I$	
		> 850 kHz to 6 kHz	$5 \cdot 10^{-4} \cdot I$	
AC current Sources	1 µA to < 10 µA	20 Hz to 30 kHz	$2 \cdot 10^{-3} \cdot I + 5\ \mathrm{nA}$	I = measured value with Fluke 8588A
	0.01 mA to < 100 mA	20 Hz to 2 kHz	$0.78 \cdot 10^{-3} \cdot I$	
		> 2 kHz to 10 kHz	$1.1 \cdot 10^{-3} \cdot I$	
		> 10 kHz to 30 kHz	$1.3 \cdot 10^{-3} \cdot I$	
	0.1 A to < 1 A	20 Hz to 2 kHz	$1.3 \cdot 10^{-3} \cdot I$	
		> 2 kHz to 10 kHz	$1.6 \cdot 10^{-3} \cdot I$	
		> 10 kHz to 30 kHz	$1.8 \cdot 10^{-3} \cdot I$	
	1 A to < 10 A	20 Hz to 10 kHz	$1.4 \cdot 10^{-3} \cdot I$	
	10 A to 30 A	20 Hz to 10 kHz	$2 \cdot 10^{-3} \cdot I$	
Current clamps	20 A to 1000 A	45 Hz to 65 Hz	$7.8 \cdot 10^{-3} \cdot I$	I = set value Only current clamps with toroidal form
		> 65 Hz to 440 Hz	$13 \cdot 10^{-3} \cdot I$	
	20 A to 1000 A	45 Hz to 65 Hz	$49 \cdot 10^{-3} \cdot I$	I = set value
		> 65 Hz to 440 Hz	$53 \cdot 10^{-3} \cdot I$	
	100 A to 6000 A	10 Hz to 300 Hz	$15 \cdot 10^{-3} \cdot I$	
		> 300 Hz to 500 Hz	$49 \cdot 10^{-3} \cdot I$	
DC resistance Fixed values	0 Ω		0.4 µΩ	
	10 µΩ		2 µΩ	
	100 µΩ		5 µΩ	
	1 mΩ		10 µΩ	
	10 mΩ		20 µΩ	
	100 kΩ		5 Ω	

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
DC resistance Fixed values	1 Ω		86 µΩ	Calibration is carried out using nominal values of Fluke 5730A
	1.9 Ω		0.17 mΩ	
	10 Ω		0.23 mΩ	
	19 Ω		0.41 mΩ	
	100 Ω		1 mΩ	
	190 Ω		1.91 mΩ	
	1 kΩ		6.38 mΩ	
	1.9 kΩ		12.2 mΩ	
	10 kΩ		62.8 mΩ	
	19 kΩ		125 mΩ	
	100 kΩ		852 mΩ	
	190 kΩ		1.94 Ω	
	1 MΩ		14.2 Ω	
	1.9 MΩ		36.9 Ω	
	10 MΩ		362 Ω	
	19 MΩ		0.96 kΩ	
	100 MΩ		9.49 kΩ	
DC resistance Measuring instruments	0 Ω to < 11 Ω		$0.2 \cdot 10^{-3} \cdot R$ + 1.1 m Ω	R = set value
	11 Ω to < 33 Ω		$0.16 \cdot 10^{-3} \cdot R$	
	33 Ω to < 110 Ω		$70 \cdot 10^{-6} \cdot R$	
	110 Ω to < 330 Ω		$48 \cdot 10^{-6} \cdot R$	
	0.33 kΩ to < 1.1 kΩ		$37 \cdot 10^{-6} \cdot R$	
	1.1 kΩ to < 3.3 kΩ		$47 \cdot 10^{-6} \cdot R$	
	3.3 kΩ to < 11 kΩ		$37 \cdot 10^{-6} \cdot R$	
	11 kΩ to < 33 kΩ		$47 \cdot 10^{-6} \cdot R$	
	33 kΩ to < 110 kΩ		$37 \cdot 10^{-6} \cdot R$	
	110 kΩ to < 330 kΩ		$52 \cdot 10^{-6} \cdot R$	
	0.33 MΩ to < 1.1 MΩ		$43 \cdot 10^{-6} \cdot R$	
	1.1 MΩ to < 3.3 MΩ		$0.1 \cdot 10^{-3} \cdot R$	
	3.3 MΩ to < 11 MΩ		$0.15 \cdot 10^{-3} \cdot R$	
	11 MΩ to < 33 MΩ		$0.48 \cdot 10^{-3} \cdot R$	
	33 MΩ to < 110 MΩ		$0.8 \cdot 10^{-3} \cdot R$	
	110 M Ω to < 330 MΩ		$3.8 \cdot 10^{-3} \cdot R$	
	0.33 GΩ to 1.1 GΩ		$16 \cdot 10^{-3} \cdot R$	

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item	Measurement quantity / Calibration item
DC resistance Sources	0 Ω to 1 Ω		8.5 · 10^{-6} · R + 3.2 µΩ	R = measured value with Fluke 8588A
	> 1 Ω to 10 Ω		6.1 · 10^{-6} · R + 11 µΩ	
	> 10 Ω to 100 Ω		5.7 · 10^{-6} · R + 39 µΩ	
	> 0.1 kΩ to 1 kΩ		5.6 · 10^{-6} · R + 0.44 mΩ	
	> 1 kΩ to 10 kΩ		5.6 · 10^{-6} · R + 5.7 mΩ	
	> 10 kΩ to 100 kΩ		5.7 · 10^{-6} · R + 46 mΩ	
	> 0.1 MΩ to 1 MΩ		6.1 · 10^{-6} · R + 1.3 Ω	
	> 1 MΩ to 10 MΩ		9.3 · 10^{-6} · R + 77 Ω	
	> 10 MΩ to 100 MΩ		31 · 10^{-6} · R + 7.8 kΩ	
	> 0.1 GΩ to 1 GΩ		4 · 10^{-4} · R + 0.78 MΩ	
Time and frequency				
Frequency Measuring instruments	0.1 Hz to < 10 Hz		50 · 10^{-3} · f + 500 µHz	f = set value
	10 Hz to < 50 MHz		0.55 · 10^{-3} · f	
	50 MHz to < 500 MHz		0.12 · 10^{-3} · f	
	0.5 GHz to 1.1 GHz		12 · 10^{-6} · f	
Frequency Sources	1 mHz to < 10 kHz		1 · 10^{-6} · f + 0.23 µHz	f = measuring value
	10 kHz to 6 GHz		1 · 10^{-6} · f	
Time interval Measuring instruments	1 ns to 0.1 s		0.55 · 10^{-3} · t	t = time interval
	> 0.1 s to 10 s		59 · 10^{-3} · t + 0.1 ms	
Time interval Sources	1 ns to 0.1 ms		4.8 · 10^{-6} · t	
	> 0.1 ms to 1000 s		0.24 · 10^{-3} · t + 0.1 µs	

Abbreviations used:

CMC	Calibration and measurement capabilities
DIN	Deutsches Institut für Normung e.V. – German institute for standardization
DGQ	Deutsche Gesellschaft für Qualität
DKD	Guideline of Deutscher Kalibrierdienst (DKD), published by the Physikalisch-Technischen Bundesanstalt
EN	Europäische Norm – European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardisation
VDE	Verband der Elektrotechnik, Elektronik und Informationstechnik e.V.
VDI	Verband Deutscher Ingenieure e.V.