



SCS Directory

Accreditation number: SCS 0058

International standard: ISO/IEC 17025:2005
Swiss standard: SN EN ISO/IEC 17025:2005

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Initial accreditation: 06.12.1995
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Scope of accreditation see: www.sas.admin.ch
(Accredited bodies)

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Scope of accreditation as of 25.09.2017

Calibration laboratory for electrical quantities, fiber optics, temperature, magnetic and electric fields

Calibration and Measurement Capability (CMC)

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
DC Voltage Calibration of voltage measurement instruments	0 mV ... < 220 mV 220 mV ... < 2,2 V 2,2 V ... < 22 V 22 V ... < 220 V		8,5•10 ⁻⁶ + 0,6 μ V 4•10 ⁻⁶ + 1,5 μ V 3•10 ⁻⁶ + 7 μ V 4•10 ⁻⁶ + 115 μ V	Also in the district of- fice in the range of 0 V ... 1100 V possible



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks	
Calibration of voltage calibrators	220 V ... 1100 V	$R_L \geq 200 \text{ M}\Omega$	$4,5 \cdot 10^{-6} + 700 \mu\text{V}$	Also onsite-calibration with higher measuring uncertainty from 0 V ... 1100 V possible	
	0 mV ... < 12 mV		$10 \cdot 10^{-6} + 1,3 \mu\text{V}$	Also in the district office in the range of 0 V ... 1100 V possible	
	12 mV ... < 120 mV		$7,6 \cdot 10^{-6} + 0,4 \mu\text{V}$	possible	
	120 mV ... < 1,2 V		$2,5 \cdot 10^{-6} + 1,2 \mu\text{V}$		
	1,2 V ... < 12 V		$2 \cdot 10^{-6} + 3 \mu\text{V}$	Also onsite-calibration with higher measuring uncertainty from 0 V ... 1100 V possible	
	12 V ... < 120 V		$2,5 \cdot 10^{-6} + 48 \mu\text{V}$		
	120 V ... 1050 V		$3 \cdot 10^{-6} + 240 \mu\text{V}$		
100 mV	$7,6 \cdot 10^{-6}$				
1 V; 10 V; 100 V; 1000V	$2,5 \cdot 10^{-6}$				
Calibration of high voltage generators	1 kV ... \leq 2 kV		$R_L \geq 200 \text{ M}\Omega$	0,13 % + 0,5 V	Also onsite-calibration possible
> 2 kV ... 20 kV	0,13 % + 5 V				
Calibration of voltage measurement instruments	1 kV ... \leq 2 kV		$R_L \geq 200 \text{ M}\Omega$	0,13 % + 0,5 V	Also onsite-calibration possible
> 2 kV ... 12 kV	0,13 % + 5 V				
DC Current					
Calibration of ammeters	0 μA ... < 12 μA	$R_L \geq 200 \text{ M}\Omega$	$35 \cdot 10^{-6} + 2,7 \text{ nA}$	Also in the district office in the range of 0 A ... 11 A possible	
	12 μA ... < 120 μA		$35 \cdot 10^{-6} + 2,7 \text{ nA}$		
	120 μA ... < 1,2 mA		$35 \cdot 10^{-6} + 10 \text{ nA}$	Also onsite-calibration with higher measuring uncertainty from 0 A ... 20 A possible	
	1,2 mA ... < 12 mA		$35 \cdot 10^{-6} + 100 \text{ nA}$		
	12 mA ... < 120 mA		$36 \cdot 10^{-6} + 3,5 \mu\text{A}$		
	120 mA ... < 2 A		$51 \cdot 10^{-6} + 14 \mu\text{A}$		
	2 A ... < 20 A		$95 \cdot 10^{-6} + 280 \mu\text{A}$		
20 A ... 100 A	$1 \cdot 10^{-3} + 10 \text{ mA}$				
Calibration of current calibrators	0 μA ... < 12 μA		$R_L \geq 200 \text{ M}\Omega$	$17 \cdot 10^{-6} + 1,2 \text{ nA}$	Also in the district office in the range of 0 A ... 11 A possible
	12 μA ... < 120 μA			$17 \cdot 10^{-6} + 1,2 \text{ nA}$	
	120 μA ... < 1,2 mA			$17 \cdot 10^{-6} + 6,7 \text{ nA}$	Also onsite-calibration with higher measuring uncertainty from 0 A ... 20 A possible
	1,2 mA ... < 12 mA			$17 \cdot 10^{-6} + 68 \text{ nA}$	
	12 mA ... < 120 mA			$19 \cdot 10^{-6} + 490 \text{ nA}$	



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks	
DC Resistance	120 mA ... < 2 A		$20 \cdot 10^{-6} + 8,8 \mu\text{A}$		
	2 A ... < 20 A		$74 \cdot 10^{-6} + 121 \mu\text{A}$		
	20 A ... 100 A		$75 \cdot 10^{-6} + 120 \mu\text{A}$		
	Calibration of resistance measurement instruments	100 $\mu\Omega$		$70 \cdot 10^{-6}$	The measurement uncertainties indicated apply to decadic values Also in the district office in the range of 0 Ω ... 330 M Ω possible Also onsite-calibration with higher measuring uncertainty from 0 Ω ... 330 M Ω possible
		1 m Ω		$45 \cdot 10^{-6}$	
		10 m Ω ; 100 m Ω		$45 \cdot 10^{-6}$	
		1 Ω ; 10 Ω		$10 \cdot 10^{-6}$	
		100 Ω ; 1 k Ω		$8 \cdot 10^{-6}$	
		10 k Ω		$5 \cdot 10^{-6}$	
		19 k Ω ; 100 k Ω		$8 \cdot 10^{-6}$	
		1 M Ω		$10 \cdot 10^{-6}$	
		10 M Ω		$12 \cdot 10^{-6}$	
		100 M Ω		$40 \cdot 10^{-6}$	
		1 G Ω		$250 \cdot 10^{-6}$	
		10 G Ω		$520 \cdot 10^{-6}$	
	100 G Ω		$750 \cdot 10^{-6}$		
	1 T Ω		$5 \cdot 10^{-3}$		
	10 T Ω		$8 \cdot 10^{-3}$		
Calibration of resistance	100 $\mu\Omega$... < 500 $\mu\Omega$		$100 \cdot 10^{-6}$	Also in the district office in the range of 0 Ω ... 1,2 G Ω possible Also onsite-calibration with higher measuring uncertainty from 0 Ω ... 1,2 G Ω possible	
	500 $\mu\Omega$... < 5 m Ω		$75 \cdot 10^{-6}$		
	5 m Ω ... < 50 m Ω		$75 \cdot 10^{-6}$		
	50 m Ω ... < 500 m Ω		$45 \cdot 10^{-6}$		
	500 m Ω ... < 5 Ω		$10 \cdot 10^{-6}$		
	5 Ω ... < 50 Ω		$10 \cdot 10^{-6}$		
	50 Ω ... < 500 Ω		$10 \cdot 10^{-6}$		
	500 Ω ... < 5 k Ω		$10 \cdot 10^{-6}$		
	5 k Ω ... < 50 k Ω		$5,5 \cdot 10^{-6}$		
	50 k Ω ... < 500 k Ω		$7,5 \cdot 10^{-6}$		



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AC Voltage Calibration of voltage calibrators	500 k Ω ... < 5 M Ω		15•10 ⁻⁶	
	5 M Ω ... < 50 M Ω		60•10 ⁻⁶	
	50 M Ω ... < 500 M Ω		480•10 ⁻⁶	
	500 M Ω ... 5 G Ω		600•10 ⁻⁶	
	5 G Ω ... 50 G Ω		850•10 ⁻⁶	
	50 G Ω ... 500 G Ω		1,65•10 ⁻³	
	500 G Ω ... 5 T Ω		6,8•10 ⁻³	
	5 T Ω ... 50 T Ω		9,2•10 ⁻³	
	50 T Ω ... 200 T Ω		1,85•10 ⁻²	
	10 mV ... < 22 mV	10 Hz	545•10 ⁻⁶ + 6 μ V	Also in the district office in the range of 10 mV ... 1050 V possible Also onsite-calibration with higher measuring uncertainty from 10 mV ... 1050 V possible
		20 Hz	450•10 ⁻⁶ + 6 μ V	
		40 Hz; 500 Hz; 1 kHz; 10 kHz; 20 kHz	405•10 ⁻⁶ + 3 μ V	
		50 kHz	470•10 ⁻⁶ + 5 μ V	
		100 kHz	710•10 ⁻⁶ + 6,5 μ V	
		300 kHz	1,7•10 ⁻³ + 12,5 μ V	
		500 kHz	1,9•10 ⁻³ + 16 μ V	
		1 MHz	3,5•10 ⁻³ + 21 μ V	
	22 mV ... < 70 mV	10 Hz	525•10 ⁻⁶ + 24 μ V	
		20 Hz	325•10 ⁻⁶ + 18 μ V	
	40 Hz; 500 Hz; 1 kHz; 10 kHz; 20 kHz	235•10 ⁻⁶ + 3 μ V		
	50 kHz	305•10 ⁻⁶ + 3,5 μ V		
	100 kHz	605•10 ⁻⁶ + 4 μ V		
	300 kHz	1,5•10 ⁻³ + 7 μ V		
	500 kHz	1,5•10 ⁻³ + 15 μ V		
	1 MHz	2,7•10 ⁻³ + 25 μ V		



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	70 mV ... < 220 mV	10 Hz	$385 \cdot 10^{-6} + 24 \mu\text{V}$	
		20 Hz	$175 \cdot 10^{-6} + 18 \mu\text{V}$	
		40 Hz; 500 Hz; 1 kHz; 10 kHz; 20 kHz	$85 \cdot 10^{-6} + 3 \mu\text{V}$	
		50 kHz	$150 \cdot 10^{-6} + 3,5 \mu\text{V}$	
		100 kHz	$255 \cdot 10^{-6} + 4 \mu\text{V}$	
		200 kHz	$615 \cdot 10^{-6} + 7 \mu\text{V}$	
		500 kHz	$840 \cdot 10^{-6} + 15 \mu\text{V}$	
		1 MHz	$1,6 \cdot 10^{-3} + 25 \mu\text{V}$	
	220 mV ... < 700 mV	10 Hz	$390 \cdot 10^{-6} + 24 \mu\text{V}$	
		20 Hz	$160 \cdot 10^{-6} + 18 \mu\text{V}$	
		40 Hz	$105 \cdot 10^{-6} + 5 \mu\text{V}$	
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$75 \cdot 10^{-6} + 5 \mu\text{V}$	
		50 kHz	$140 \cdot 10^{-6} + 6,5 \mu\text{V}$	
		100 kHz	$200 \cdot 10^{-6} + 7 \mu\text{V}$	
		200 kHz	$575 \cdot 10^{-6} + 8 \mu\text{V}$	
		500 kHz	$800 \cdot 10^{-6} + 25 \mu\text{V}$	
	700 mV ... < 2,2 V	1 MHz	$1,6 \cdot 10^{-3} + 60 \mu\text{V}$	
		10 Hz	$370 \cdot 10^{-6} + 25 \mu\text{V}$	
		20 Hz	$145 \cdot 10^{-6} + 18 \mu\text{V}$	
		40 Hz	$55 \cdot 10^{-6} + 5 \mu\text{V}$	
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$45 \cdot 10^{-6} + 5 \mu\text{V}$	
		50 kHz	$80 \cdot 10^{-6} + 6 \mu\text{V}$	
		100 kHz	$110 \cdot 10^{-6} + 6 \mu\text{V}$	
		200 kHz	$275 \cdot 10^{-6} + 6 \mu\text{V}$	
		500 kHz	$620 \cdot 10^{-6} + 24 \mu\text{V}$	
	1 MHz	$1,5 \cdot 10^{-3} + 60 \mu\text{V}$		



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	2,2 V ... < 7 V	10 Hz	$370 \cdot 10^{-6} + 24 \mu\text{V}$	
		20 Hz	$145 \cdot 10^{-6} + 18 \mu\text{V}$	
		40 Hz	$105 \cdot 10^{-6} + 18 \mu\text{V}$	
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$45 \cdot 10^{-6} + 10 \mu\text{V}$	
		50 kHz	$80 \cdot 10^{-6} + 12 \mu\text{V}$	
		100 kHz	$125 \cdot 10^{-6} + 12 \mu\text{V}$	
		200 kHz	$295 \cdot 10^{-6} + 18 \mu\text{V}$	
		500 kHz	$745 \cdot 10^{-6} + 120 \mu\text{V}$	
		1 MHz	$1,9 \cdot 10^{-3} + 190 \mu\text{V}$	
	7 V ... < 22 V	10 Hz	$370 \cdot 10^{-6} + 23 \mu\text{V}$	
		20 Hz	$145 \cdot 10^{-6} + 17 \mu\text{V}$	
		40 Hz	$60 \cdot 10^{-6} + 9 \mu\text{V}$	
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$50 \cdot 10^{-6} + 12 \mu\text{V}$	
		50 kHz	$80 \cdot 10^{-6} + 12 \mu\text{V}$	
		100 kHz	$120 \cdot 10^{-6} + 12 \mu\text{V}$	
		200 kHz	$265 \cdot 10^{-6} + 17 \mu\text{V}$	
		500 kHz	$570 \cdot 10^{-6} + 115 \mu\text{V}$	
		1 MHz	$1,9 \cdot 10^{-3} + 115 \mu\text{V}$	
	22 V ... < 70 V	10 Hz	$370 \cdot 10^{-6} + 23 \mu\text{V}$	
		20 Hz	$145 \cdot 10^{-6} + 17 \mu\text{V}$	
		40 Hz	$65 \cdot 10^{-6} + 10 \mu\text{V}$	
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$60 \cdot 10^{-6} + 12 \mu\text{V}$	
		50 kHz	$90 \cdot 10^{-6} + 12 \mu\text{V}$	
		100 kHz	$145 \cdot 10^{-6} + 12 \mu\text{V}$	
		200 kHz	$295 \cdot 10^{-6} + 17 \mu\text{V}$	
		500 kHz	$780 \cdot 10^{-6} + 115 \mu\text{V}$	
		1 MHz	$1,9 \cdot 10^{-3} + 115 \mu\text{V}$	



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AC Voltage Calibration of voltage measurement instruments	70 V ... < 220 V	10 Hz	$330 \cdot 10^{-6} + 235 \mu\text{V}$		
		20 Hz	$145 \cdot 10^{-6} + 175 \mu\text{V}$		
		40 Hz	$60 \cdot 10^{-6} + 95 \mu\text{V}$		
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$55 \cdot 10^{-6} + 95 \mu\text{V}$		
		50 kHz	$110 \cdot 10^{-6} + 115 \mu\text{V}$		
		100 kHz	$155 \cdot 10^{-6} + 115 \mu\text{V}$		
		220 V ... < 700 V	10 Hz		$330 \cdot 10^{-6} + 235 \mu\text{V}$
	20 Hz	$175 \cdot 10^{-6} + 175 \mu\text{V}$			
	40 Hz	$70 \cdot 10^{-6} + 95 \mu\text{V}$			
	500 Hz; 1 kHz; 10 kHz; 20 kHz	$70 \cdot 10^{-6} + 95 \mu\text{V}$			
	50 kHz	$190 \cdot 10^{-6} + 115 \mu\text{V}$			
	100 kHz	$990 \cdot 10^{-6} + 115 \mu\text{V}$			
	700 V ... 1050 V	10 Hz	$330 \cdot 10^{-6} + 600 \mu\text{V}$		
	20 Hz	$150 \cdot 10^{-6} + 600 \mu\text{V}$			
	40 Hz	$85 \cdot 10^{-6} + 600 \mu\text{V}$			
	500 Hz; 1 kHz; 10 kHz; 20 kHz	$55 \cdot 10^{-6} + 600 \mu\text{V}$			
	50 kHz	$200 \cdot 10^{-6} + 600 \mu\text{V}$			
	100 kHz	$995 \cdot 10^{-6} + 600 \mu\text{V}$			
	10 mV ... < 22 mV	10 Hz	$550 \cdot 10^{-6} + 6 \mu\text{V}$		Also in the district of- fice in the range of 10 mV ... 1050 V (10Hz ... 500 kHz) possible
	20 Hz	$450 \cdot 10^{-6} + 6 \mu\text{V}$			
	40 Hz; 500 Hz; 1 kHz; 10 kHz; 20 kHz	$405 \cdot 10^{-6} + 3 \mu\text{V}$			
50 kHz	$470 \cdot 10^{-6} + 3,5 \mu\text{V}$	Also onsite-calibration with higher measuring uncertainty from 10 mV ... 1050 V possible (10 Hz ... 500 kHz)			
100 kHz	$710 \cdot 10^{-6} + 4,5 \mu\text{V}$				
300 kHz	$1,3 \cdot 10^{-3} + 7,6 \mu\text{V}$				
500 kHz	$1,9 \cdot 10^{-3} + 16 \mu\text{V}$				
1 MHz	$3,5 \cdot 10^{-3} + 21 \mu\text{V}$				



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
	22 mV ... < 70 mV	10 Hz	$525 \cdot 10^{-6} + 24 \mu\text{V}$	
		20 Hz	$325 \cdot 10^{-6} + 18 \mu\text{V}$	
		40 Hz; 500 Hz; 1 kHz; 10 kHz; 20 kHz	$235 \cdot 10^{-6} + 3 \mu\text{V}$	
		50 kHz	$300 \cdot 10^{-6} + 3,5 \mu\text{V}$	
		100 kHz	$605 \cdot 10^{-6} + 4 \mu\text{V}$	
		300 kHz	$970 \cdot 10^{-6} + 6,5 \mu\text{V}$	
		500 kHz	$1,5 \cdot 10^{-3} + 15 \mu\text{V}$	
		1 MHz	$2,7 \cdot 10^{-3} + 25 \mu\text{V}$	
	70 mV ... < 220 mV	10 Hz	$390 \cdot 10^{-6} + 24 \mu\text{V}$	
		20 Hz	$180 \cdot 10^{-6} + 18 \mu\text{V}$	
		40 Hz; 500 Hz; 1 kHz; 10 kHz; 20 kHz	$85 \cdot 10^{-6} + 3 \mu\text{V}$	
		50 kHz	$150 \cdot 10^{-6} + 3,5 \mu\text{V}$	
		100 kHz	$260 \cdot 10^{-6} + 4 \mu\text{V}$	
		200 kHz	$615 \cdot 10^{-6} + 6,5 \mu\text{V}$	
		500 kHz	$840 \cdot 10^{-6} + 15 \mu\text{V}$	
		1 MHz	$1,6 \cdot 10^{-3} + 25 \mu\text{V}$	
	220 mV ... < 700 mV	10 Hz	$390 \cdot 10^{-6} + 24 \mu\text{V}$	
		20 Hz	$160 \cdot 10^{-6} + 18 \mu\text{V}$	
		40 Hz	$105 \cdot 10^{-6} + 5 \mu\text{V}$	
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$75 \cdot 10^{-6} + 5 \mu\text{V}$	
		50 kHz	$140 \cdot 10^{-6} + 6,5 \mu\text{V}$	
		100 kHz	$200 \cdot 10^{-6} + 6,5 \mu\text{V}$	
		200 kHz	$580 \cdot 10^{-6} + 12,5 \mu\text{V}$	
		500 kHz	$800 \cdot 10^{-6} + 25 \mu\text{V}$	
		1 MHz	$1,6 \cdot 10^{-3} + 60 \mu\text{V}$	
		700 mV ... < 2,2 V	10 Hz	
	20 Hz		$145 \cdot 10^{-6} + 17,5 \mu\text{V}$	
40 Hz	$55 \cdot 10^{-6} + 5 \mu\text{V}$			



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	2,2 V ... < 7 V	500 Hz; 1 kHz; 10 kHz; 20 kHz	$45 \cdot 10^{-6} + 5 \mu\text{V}$		
		50 kHz	$80 \cdot 10^{-6} + 6 \mu\text{V}$		
		100 kHz	$115 \cdot 10^{-6} + 6 \mu\text{V}$		
		200 kHz	$275 \cdot 10^{-6} + 11,5 \mu\text{V}$		
		500 kHz	$625 \cdot 10^{-6} + 24 \mu\text{V}$		
		1 MHz	$1,5 \cdot 10^{-3} + 60 \mu\text{V}$		
		10 Hz	$370 \cdot 10^{-6} + 24 \mu\text{V}$		
		20 Hz	$150 \cdot 10^{-6} + 17,5 \mu\text{V}$		
		40 Hz	$55 \cdot 10^{-6} + 9,5 \mu\text{V}$		
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$50 \cdot 10^{-6} + 9,5 \mu\text{V}$		
		50 kHz	$85 \cdot 10^{-6} + 11,5 \mu\text{V}$		
		100 kHz	$125 \cdot 10^{-6} + 11,5 \mu\text{V}$		
		200 kHz	$295 \cdot 10^{-6} + 17,5 \mu\text{V}$		
		500 kHz	$750 \cdot 10^{-6} + 120 \mu\text{V}$		
		1 MHz	$1,9 \cdot 10^{-3} + 120 \mu\text{V}$		
	7 V ... < 22 V	10 Hz	$370 \cdot 10^{-6} + 24 \mu\text{V}$		
		20 Hz	$145 \cdot 10^{-6} + 17,5 \mu\text{V}$		
		40 Hz	$60 \cdot 10^{-6} + 9,5 \mu\text{V}$		
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$50 \cdot 10^{-6} + 9,5 \mu\text{V}$		
		50 kHz	$80 \cdot 10^{-6} + 11,5 \mu\text{V}$		
		100 kHz	$120 \cdot 10^{-6} + 11,5 \mu\text{V}$		
		200 kHz	$295 \cdot 10^{-6} + 17,5 \mu\text{V}$		
		500 kHz	$745 \cdot 10^{-6} + 120 \mu\text{V}$		
		1 MHz	$1,9 \cdot 10^{-3} + 120 \mu\text{V}$		
		22 V ... < 70 V	10 Hz	$370 \cdot 10^{-6} + 235 \mu\text{V}$	
			20 Hz	$145 \cdot 10^{-6} + 175 \mu\text{V}$	
			40 Hz	$65 \cdot 10^{-6} + 95 \mu\text{V}$	
			500 Hz; 1 kHz; 10 kHz; 20 kHz	$60 \cdot 10^{-6} + 95 \mu\text{V}$	



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	70 V ... < 220 V	50 kHz	$100 \cdot 10^{-6} + 120 \mu\text{V}$			
		100 kHz	$145 \cdot 10^{-6} + 120 \mu\text{V}$			
		200 kHz	$275 \cdot 10^{-6} + 465 \mu\text{V}$			
		500 kHz	$620 \cdot 10^{-6} + 12 \text{ mV}$			
		10 Hz	$370 \cdot 10^{-6} + 235 \mu\text{V}$			
		20 Hz	$150 \cdot 10^{-6} + 175 \mu\text{V}$			
		40 Hz	$65 \cdot 10^{-6} + 95 \mu\text{V}$			
		500 Hz; 1 kHz; 10 kHz; 20 kHz	$65 \cdot 10^{-6} + 95 \mu\text{V}$			
		50 kHz	$120 \cdot 10^{-6} + 120 \mu\text{V}$			
		100 kHz	$160 \cdot 10^{-6} + 120 \mu\text{V}$			
	220 V ... < 1050 V	50 Hz ... 1 kHz	$85 \cdot 10^{-6} + 0,6 \text{ mV}$			
	Calibration of high voltage sources	1 kV ... \leq 2 kV	50 Hz, $R_L \geq 200 \text{ M}\Omega$		0,15 % + 2,5 V	Also onsite-calibration possible
		> 2 kV ... 15 kV	50 Hz, $R_L \geq 200 \text{ M}\Omega$		0,15 % + 25 V	
	Calibration of high voltage measurement instruments	1 kV ... \leq 2 kV	50 Hz		0,15 % + 2,5 V	Also onsite-calibration possible
> 2 kV ... 15 kV		50 Hz	0,15 % + 25 V			
AC Current Calibration of current calibrators	2 mA ... < 10 mA	20 Hz ... < 40 Hz	$135 \cdot 10^{-6} + 0,5 \mu\text{A}$	Also in the district office in the range of 2 mA ... 1,2 A possible		
		40 Hz ... 10 kHz	$105 \cdot 10^{-6} + 0,5 \mu\text{A}$			
	10 mA ... < 30 mA	20 Hz ... < 40 Hz	$145 \cdot 10^{-6} + 4,2 \mu\text{A}$	Also onsite-calibration with higher measuring uncertainty from 2 mA ... 1,2 A possible		
		40 Hz ... 10 kHz	$115 \cdot 10^{-6} + 4,2 \mu\text{A}$			
	30 mA ... < 100 mA	20 Hz ... < 40 Hz	$145 \cdot 10^{-6} + 4,2 \mu\text{A}$			
		40 Hz ... 10 kHz	$115 \cdot 10^{-6} + 4,2 \mu\text{A}$			
	100 mA ... < 300 mA	20 Hz ... < 40 Hz	$165 \cdot 10^{-6} + 35 \mu\text{A}$			
		40 Hz ... 10 kHz	$140 \cdot 10^{-6} + 35 \mu\text{A}$			
	300 mA ... < 2 A	20 Hz ... < 40 Hz	20 Hz ... < 40 Hz	$165 \cdot 10^{-6} + 35 \mu\text{A}$		
			40 Hz ... < 5 kHz	$140 \cdot 10^{-6} + 35 \mu\text{A}$		
5 kHz ... 10 kHz		$140 \cdot 10^{-6} + 35 \mu\text{A}$				



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Calibration of ammeters	2 A ... < 5 A	20 Hz ... < 40 Hz	$140 \cdot 10^{-6} + 150 \mu\text{A}$	Also in the district office in the range of 2 mA ... 11 A (10 Hz ... 10 kHz) possible Also onsite-calibration with higher measuring uncertainty from 2 mA ... 20 A possible (10 Hz ... 10 kHz)
		40 Hz ... < 5 kHz	$115 \cdot 10^{-6} + 150 \mu\text{A}$	
		5 kHz ... 10 kHz	$180 \cdot 10^{-6} + 150 \mu\text{A}$	
	5 A ... < 10 A	20 Hz ... < 40 Hz	$140 \cdot 10^{-6} + 150 \mu\text{A}$	
		40 Hz ... < 5 kHz	$115 \cdot 10^{-6} + 150 \mu\text{A}$	
		5 kHz ... 10 kHz	$180 \cdot 10^{-6} + 150 \mu\text{A}$	
	10 A ... 20 A	20 Hz ... < 40 Hz	$145 \cdot 10^{-6} + 150 \mu\text{A}$	
		40 Hz ... 5 kHz	$120 \cdot 10^{-6} + 150 \mu\text{A}$	
	2 mA ... < 10 mA	20 Hz ... < 40 Hz	$340 \cdot 10^{-6} + 0,5 \mu\text{A}$	
		40 Hz ... < 1 kHz	$165 \cdot 10^{-6} + 0,5 \mu\text{A}$	
		1 kHz ... < 5 kHz	$530 \cdot 10^{-6} + 0,8 \mu\text{A}$	
		5 kHz ... 10 kHz	$1,65 \cdot 10^{-3} + 1,3 \mu\text{A}$	
	10 mA ... < 30 mA	20 Hz ... < 40 Hz	$355 \cdot 10^{-6} + 7 \mu\text{A}$	
		40 Hz ... < 1 kHz	$170 \cdot 10^{-6} + 7 \mu\text{A}$	
		1 kHz ... < 5 kHz	$535 \cdot 10^{-6} + 60 \mu\text{A}$	
		5 kHz ... 10 kHz	$1,65 \cdot 10^{-3} + 120 \mu\text{A}$	
	30 mA ... < 100 mA	20 Hz ... < 40 Hz	$355 \cdot 10^{-6} + 7 \mu\text{A}$	
		40 Hz ... < 1 kHz	$170 \cdot 10^{-6} + 7 \mu\text{A}$	
		1 kHz ... < 5 kHz	$540 \cdot 10^{-6} + 60 \mu\text{A}$	
		5 kHz ... 10 kHz	$1,65 \cdot 10^{-3} + 120 \mu\text{A}$	
	100 mA ... < 300 mA	20 Hz ... < 1 kHz	$715 \cdot 10^{-6} + 60 \mu\text{A}$	
		1 kHz ... < 5 kHz	$765 \cdot 10^{-6} + 125 \mu\text{A}$	
		5 kHz ... 10 kHz	$8,7 \cdot 10^{-3} + 235 \mu\text{A}$	
	300 mA ... < 2 A	20 Hz ... < 1 kHz	$715 \cdot 10^{-6} + 60 \mu\text{A}$	
1 kHz ... < 5 kHz		$765 \cdot 10^{-6} + 125 \mu\text{A}$		
5 kHz ... 10 kHz		$8,7 \cdot 10^{-3} + 235 \mu\text{A}$		
2 A ... < 5 A	20 Hz ... < 40 Hz	$140 \cdot 10^{-6} + 160 \mu\text{A}$		
	40 Hz ... < 5 kHz	$115 \cdot 10^{-6} + 160 \mu\text{A}$		
	5 kHz ... 10 kHz	$140 \cdot 10^{-6} + 160 \mu\text{A}$		



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks	
AC Power	5 A ... < 10 A	20 Hz ... < 40 Hz	$140 \cdot 10^{-6} + 160 \mu\text{A}$	Also onsite-calibration with higher measuring uncertainty from I_{AC} 0,06 A ... 20 A possible Also in the district office in the range of I_{AC} 0,06 A ... 11 A possible	
		40 Hz ... < 5 kHz	$115 \cdot 10^{-6} + 160 \mu\text{A}$		
	10 A ... 20 A	5 kHz ... 10 kHz	$180 \cdot 10^{-6} + 160 \mu\text{A}$		
		20 Hz ... < 40 Hz	$145 \cdot 10^{-6} + 160 \mu\text{A}$		
	U _{AC} [V]	I _{AC} [A]	40 Hz ... < 5 kHz		$120 \cdot 10^{-6} + 160 \mu\text{A}$
			f = 48,5 Hz ... 51,5 Hz		
	Calibration of sources (effective power)	40 ... 480	0,06 ... 100		$180 \cdot 10^{-6}$
			cos φ = 1		
	Calibration of power measurement instruments (effective power)	40 ... 480	0,06 ... 100		$295 \cdot 10^{-6}$
			cos φ = 0,5 ... < 1, c, i		
0,06 ... 20			$185 \cdot 10^{-6}$		
cos φ = 1					
40 ... 480	> 20 ... 100	cos φ = 0,5 ... < 1, c, i	$670 \cdot 10^{-6}$		
		cos φ = 1			
40 ... 480	> 20 ... 100	cos φ = 1	$3,2 \cdot 10^{-3}$		
		cos φ = 0,5 ... < 1, c, i	$5,2 \cdot 10^{-3}$		
Frequency	Calibration of frequency counters	Measurement period:			
		1 mHz ... < 1 Hz	≥ 100 s	$2,0 \cdot 10^{-5}$	
		1 Hz ... < 10 Hz		$2,0 \cdot 10^{-7}$	
		10 Hz ... < 100 Hz		$2,0 \cdot 10^{-8}$	
		100 Hz ... < 1 kHz		$2,0 \cdot 10^{-9}$	
		1 kHz ... < 10 kHz		$1,0 \cdot 10^{-10}$	
		10 kHz ... < 1 MHz		$2,0 \cdot 10^{-11}$	
		1 MHz ... 50 GHz	≥ 10 s	$1,0 \cdot 10^{-11}$	
		Calibration of frequency generators	1 mHz ... < 1 Hz	Measurement period:	
				≥ 100 s	$2,0 \cdot 10^{-5}$
1 Hz ... < 10 Hz				$2,0 \cdot 10^{-7}$	
10 Hz ... < 100 Hz				$2,0 \cdot 10^{-8}$	
100 Hz ... < 1 kHz				$2,0 \cdot 10^{-9}$	
1 kHz ... < 10 kHz				$1,0 \cdot 10^{-10}$	
10 kHz ... < 1 MHz		$2,0 \cdot 10^{-11}$			



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Period	1 MHz ... < 3 GHz	≥ 10 s	$1,0 \cdot 10^{-11}$	Phase comparison
	3 GHz ... 50 GHz	≥ 10 s	$2,0 \cdot 10^{-11} + 1$ Hz	
	1 MHz; 5 MHz; 10 MHz	≥ 1 h	$1,0 \cdot 10^{-11}$	
	10 ns ... < 10 μ s	≥ 10 s	$1,5 \cdot 10^{-7}$ ns	
	10 μ s ... < 100 μ s		$1,5 \cdot 10^{-9}$ μ s	
	100 μ s ... < 1 ms		$1 \cdot 10^{-7}$ μ s	
	1 ms ... < 10 ms		$1,2 \cdot 10^{-8}$ ms	
	10 ms ... < 100 ms		$1,9 \cdot 10^{-6}$ ms	
Number of revolutions	100 ms ... < 1 s		$1,9 \cdot 10^{-4}$ ms	Optical
	1 s ... 10 s	≥ 100 s	$1,8 \cdot 10^{-5}$ s	
RF Power	6 U/min ... <1000 U/min		$5,8 \cdot 10^{-3}$ U/min	Optical
	1000 U/min ... 10000 U/min		$5,8 \cdot 10^{-2}$ U/min	
Calibration of RF powermeters	10 μ W ... 5 mW (-20 dBm ... + 7 dBm)	100 kHz ... 2,6 GHz	2,9 % + 0,84 μ W	Analyzer:: VSWR $\leq 1,3$
	0.001 pW ... 1 mW	2,5 MHz ... 1,3 GHz	3,8 %	
	>1 μ W ... 2.5 mW (-30 dBm ... +4 dBm)	9 kHz ... < 2,4 GHz	2,7 % + 66 nW	
		2,4 GHz ... < 12,4 GHz	3,4 % + 66 nW	
		12,4 GHz ... 18 GHz	4,7 % + 66 nW	
	1 nW ... 1 μ W (-60 dBm ... -30 dBm)	10 MHz ... < 2,4 GHz	3,8 % + 0,16 nW	
		2,4 GHz ... <12,4 GHz	4,8 % + 0,16 nW	
		12,4 GHz ... 18 GHz	6,6 % + 0,16 nW	
Calibration of signal generators	10 μ W ... 100 mW (-20 dBm ... +20 dBm)	100 kHz ... 2,6 GHz	2,7 % + 0,84 μ W	Generator: VSWR $\leq 1,3$
	>0.1 pW ... 1 mW (-100 dBm ... 0 dBm)	2,5 MHz ... 1,3 GHz	3,2 %	
	0.001pW ... 0.1 pW (-120 dBm ... -100 dBm)	2,5 MHz ... 1,3 GHz	4,9 %	



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks	
Reflexion	>1 μ W ... 100 mW (-30 dBm ... +20 dBm)	9 kHz ... < 2,4 GHz	2,9 % + 66 nW	Z = 50 Ω N- and 7mm-con- nector	
		2,4 GHz ... < 12,4 GHz	3,8 % + 66 nW		
		12,4 GHz ... 18 GHz	4,6 % + 66 nW		
	1 nW ... 1 μ W (-60 dBm ... -30 dBm)	10 MHz ... < 2,4 GHz	3,4 % + 0,16 nW		
		2,4 GHz ... < 12,4 GHz	4,5 % + 0,16 nW		
		12,4 GHz ... 18 GHz	5,7 % + 0,16 nW		
	0,2 ... 0,4	30 kHz ... < 1,3 GHz	0,012		
		1,3 GHz ... < 3 GHz	0,015		
		3 GHz ... 6 GHz	0,028		
	0,1 ... < 0,2	0,03 MHz ... < 1,3 GHz	0,009		
		1,3 GHz ... < 3 GHz	0,011		
		3 GHz ... 6 GHz	0,020		
0,032 ... < 0,1	0,03 MHz ... < 1,3 GHz	0,008	N-connector		
	1,3 GHz ... < 3 GHz	0,010			
	3 GHz ... 6 GHz	0,018			
0,001 ... < 0,032	0,03 MHz ... < 1,3 GHz	0,007			
	1,3 GHz ... < 3 GHz	0,009			
	3 GHz ... 6 GHz	0,017			
0,030 ... < 0,200	10 MHz ... 18 GHz	0,020			
0,200 ... < 0,300		0,028			
0,300 ... < 0,400		0,040			
0,400 ... < 0,500		0,060			
Oscilloscopes					Also onsite-calibration possible
Rectangular voltage amplitude	1 mV ... 120 mV	1 kHz/1 M Ω		$1,3 \cdot 10^{-3} + 16 \mu$ V	
	> 120 mV ... 1,2 V	1 kHz/1 M Ω	$1,3 \cdot 10^{-3} + 62 \mu$ V		
	> 1,2 V ... 12 V	1 kHz/1 M Ω	$1,2 \cdot 10^{-3} + 698 \mu$ V		
	> 12 V ... 60 V	1 kHz/1 M Ω	$1,2 \cdot 10^{-3} + 3,3$ mV		
	> 60 V ... 120 V	1 kHz/1 M Ω	$1,2 \cdot 10^{-3} + 5,9$ mV		
	> 120 V ... 200 V	1 kHz/1 M Ω	$1,2 \cdot 10^{-3} + 27$ mV		
	1 mV ... 120 mV	1 kHz/50 Ω	$1,3 \cdot 10^{-3} + 16 \mu$ V		



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
DC voltage	> 120 mV ... 1,2 mV	1 kHz/50 Ω	$1,3 \cdot 10^{-3} + 62 \mu\text{V}$	
	> 1,2 mV ... 3 V	1 kHz/50 Ω	$1,2 \cdot 10^{-3} + 307 \mu\text{V}$	
	> 3 V ... 5,5 V	1 kHz/50 Ω	$1,2 \cdot 10^{-3} + 305 \mu\text{V}$	
	1 mV ... 300 mV	DC/1 M Ω	$290 \cdot 10^{-6} + 32 \mu\text{V}$	
	> 300 mV ... 3 V	DC/1 M Ω	$290 \cdot 10^{-6} + 122 \mu\text{V}$	
	> 3 V ... 15 V	DC/1 M Ω	$290 \cdot 10^{-6} + 623 \mu\text{V}$	
	> 15 V ... 120 V	DC/1 M Ω	$290 \cdot 10^{-6} + 801 \mu\text{V}$	
	> 120 V ... 200 V	DC/1 M Ω	$290 \cdot 10^{-6} + 1,1 \text{ mV}$	
	1 mV ... 300 mV	DC/50 Ω	$290 \cdot 10^{-6} + 32 \mu\text{V}$	
	> 300 mV ... 3 V	DC/50 Ω	$290 \cdot 10^{-6} + 122 \mu\text{V}$	
> 3 V ... 5,5 V	DC/50 Ω	$290 \cdot 10^{-6} + 100 \mu\text{V}$		
Time base				
Sampling rate	0,2 ms	99,5 MHz; 100,5 MHz 30 mVpp ... 1 Vpp 100 MS/s	$0,005 \cdot 10^{-6}$	
Time interval	1 ms	10 MHz / 1 Vpp	$0,4 \cdot 10^{-6}$	
Time marker	0,5 ns ... 20 s	100 mV ... 1 V	$1,2 \cdot 10^{-6} + 12 \text{ ps}$	
Risetime	$\geq 350 \text{ ps}$	4,4 mV ... 3,1 V	37 ps	
Flatness	5 mVpp ... 5 Vpp	$\leq 300 \text{ MHz}$	3,10 %	50 Ω , VSWR $\leq 1,6$
		> 300 MHz ... 550 MHz	4,00 %	Calibrated to U_{inc}
	5 mVpp ... 3 Vpp	> 550 MHz ... 1,1 GHz	5,10 %	
	5 mVpp ... 5 Vpp	$\leq 10 \text{ MHz}$	3,10 %	1 M Ω , $C_{\text{in}} \leq 7 \text{ pF}$
		> 10 MHz ... 100 MHz	5,90 %	Calibrated to U_{Load}
		> 100 MHz ... 150 MHz	10,40 %	
Input resistance	50 Ω 1 M Ω	> 150 MHz ... 250 MHz	13,60 %	
			0,09 %	
			0,07 %	
Optical power				
Absolute power	-20 dBm (10 μW)	$\lambda = 850 \text{ nm}$	2,00 %	
	-10 dBm ... -30 dBm	$\lambda = 1310 \text{ nm}$	1,70 %	



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Linearity	(100 μ W ... 1 μ W)	λ = 1550 nm	1,70 %	
	-5 dBm ... -55 dBm	λ = 1310 nm	0,90 %	
Calibration of fiber optic power measurement instruments	(316 μ W ... 3,16 nW)	λ = 1550 nm	0,90 %	
	-55 dBm ... -65 dBm	λ = 1310 nm	0,90 %	
Absolute power	(3,16 nW ... 316 pW)	λ = 1550 nm	0,90 %	
	-65 dBm ... -75 dBm	λ = 1310 nm	1,50 %	
	(316 pW ... 31,6 pW)	λ = 1550 nm	1,50 %	
	-5 dBm ... -65 dBm	λ = 800 ... 900 nm	1,90 %	
Calibration of fiber optic sources	(316 μ W ... 316 pW)	λ = 1300 nm (Multi-mode)	1,90 %	
		λ = 1200 ... 1600 nm	1,60 %	
Insertion loss	Attenuation range	λ = 1310 nm	1,30 %	
	0 dB ... 50 dB	λ = 1550 nm	1,30 %	
	Attenuation range	λ = 1310 nm	1,30 %	
	50 dB ... 60 dB	λ = 1550 nm	1,30 %	
	Attenuation range	λ = 1310 nm	4,00 %	
60 dB ... 70 dB	λ = 1550 nm	4,00 %		
Wavelength of sources				
diode laser	600 nm ... < 1530 nm > 1570 nm ... 1750 nm	P > -60 dBm	0,40 nm	
	1530 nm ... 1570 nm		0,07 nm	
Calibration of OTDR	Distance:	λ :	Deviation of the scale of distance:	Also onsite-calibration possible
SM-modules	0 km ... 100 km	1200 nm ... 1650 nm	3,7•10 ⁻⁵ m/m	
Scale of attenuation			Position offset: 0,70 m	
	0 dB ... 30 dB	1310 nm 1550 nm 1625 nm	Deviation of the scale of attenuation: 0,012 dB/dB 0,017 dB/dB 0,016 dB/dB	



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Temperature				
Thermal calibration				More units possible: °F; K
Fixed-point for ITS-90	0,01 °C	Triple point of water	0,015 °C	
Thermometer with direct display and resistance thermometer	-90 °C ... -50 °C	Comparison with a standard platinum resistance thermometer in air in the bloc calibrator	0,065 °C	Also onsite-calibration possible
	>-50 °C ... 125 °C		0,050 °C	
	>125 °C ... 250 °C		0,33 °C	
	>250 °C ... 450 °C		0,31 °C	
Thermocouple elements	-90 °C ... -50 °C		0,60 °C	
	>-50 °C ... 125 °C		0,60 °C	
	>125 °C ... 250 °C		0,70 °C	
	>250 °C ... 450 °C		0,70 °C	
Thermal installations (Bloc calibrator, bath)	-90 °C ... -50 °C	With Pt 100	0,065 °C	Also onsite-calibration possible
	>-50 °C ... 125 °C		0,055 °C	
	>125 °C ... 250 °C		0,35 °C	
	>250 °C ... 450 °C		0,31 °C	
(Ovens, climate chambers)	-90 °C ... -50 °C	Measurement of homogeneity with RTD-sensors	0,13 °C	Onsite-calibration
	>-50 °C ... 125 °C		0,13 °C	
	>125 °C ... 250 °C		0,38 °C	
	>250 °C ... 450 °C		0,38 °C	
Electric calibration				
Measurement of RTD-temperature calibrator	-200 °C ... 800 °C	Pt 100	0,02 °C	Also in the district office possible
Simulations of RTD-temperature measuring instruments	-200 °C ... 100 °C	Pt 100	0,08 °C	Also onsite-calibration possible
	>100 °C ... 630 °C		0,12 °C	
	>630 °C ... 800 °C		0,27 °C	
Measurement and simulations of thermocouple measuring instruments and -calibrators	600 °C ... 800 °C	type B	0,51 °C	Also in the district office possible
	>800 °C ... 1820 °C		0,39 °C	
	0 °C ... 1000 °C	type C	0,36 °C	Also onsite-calibration possible
	>1000 °C ... 1800 °C		0,58 °C	
	>1800 °C ... 2316 °C		0,97 °C	



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
	-250 °C ... <-100 °C	type E	0,58 °C	
	-100 °C ... 650 °C		0,19 °C	
	>650 °C ... 2100 °C		0,24 °C	
	-210 °C ... <-100 °C	type J	0,31 °C	
	-100 °C ... <-30 °C		0,19 °C	
	-30 °C ... <150 °C		0,16 °C	
	150 °C ... 760 °C		0,20 °C	
	>760 °C ... 1200 °C		0,27 °C	
	-210 °C ... <-100 °C	type K	0,38 °C	
	-100 °C ... <-25 °C		0,21 °C	
	-25 °C ... 120 °C		0,19 °C	
	>120 °C ... 1000 °C		0,30 °C	
	>1000 °C ... 1372 °C		0,46 °C	
	-210 °C ... <-100 °C	type L	0,43 °C	
	-100 °C ... 800 °C		0,30 °C	
	>800 ... 900 °C		0,20 °C	
	-210 °C ... <-100 °C	type N	0,46 °C	
	-100 °C ... <-25 °C		0,25 °C	
	-25 °C ... 410 °C		0,22 °C	
	>410 °C ... 1300 °C		0,31 °C	
	0 °C ... <250 °C	type R	0,66 °C	
	250 °C ... 1000 °C		0,40 °C	
	>1000 °C ... 1767 °C		0,46 °C	
	0 °C ... <250 °C	type S	0,54 °C	
	250 °C ... 1400 °C		0,43 °C	
	>1400 °C ... 1767 °C		0,53 °C	
	-250 °C ... <-150 °C	type T	0,73 °C	
	-150 °C ... <0 °C		0,28 °C	
	0 °C ... 400 °C		0,19 °C	
	-200 °C ... <0 °C	type U	0,65 °C	
	0 °C ... 600 °C		0,31 °C	



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Pressure				
Absolute pressure in fluids	13,8 mbar ... 14 bar > 14 bar ... 70 bar > 70 bar ... 210 bar > 210 bar ... 1000 bar		0,0035 % + 0,004 mbar 0,005 % 0,005 % 0,025 %	Also other units possible: Pa; psi; mmHg; mmH2O
Positive and negative gauge pressure in fluids	-900 mbar ... 14 bar > 14 bar ... 70 bar > 70 bar ... 210 bar > 210 bar ... 1000 bar		0,0035 % 0,005 % 0,005 % 0,025 %	Also onsite-calibration with higher measuring uncertainty possible
Differential pressure in fluids	-160 mbar ... -10 mbar > -10 mbar ... < 10 mbar 10 mbar ... 160 mbar		0,008 % + 0,006 mbar 0,01 % + 0,002 mbar 0,008 % + 0,006 mbar	
Manometer of blood pressure monitor	0 ... 46,7 kPa 0 ... 350 mmHg	20 °C ... 25 °C	0,13 kPa 1,00 mmHg	According to Standards: SN EN 1060-1 SN EN 1060-2 SN EN 1060-3 EN ISO 81060-1 OMIL R16-1 OMIL R16-2
Magnetic flux density				
Calibration of magnetic field analyzers	0,1 μ T ... 315 μ T 0,1 μ T ... 25 μ T	10 Hz ... 1 kHz 1 kHz ... 2 kHz	1,80 % + 0,12 μ T	
Electric field strength				
Calibration of electric field analyzers	0 V/m... 1330 V/m 0 V/m... 293 V/m 1,3 kV/m ... 20 kV/m	10 Hz ... 1 kHz 1 kHz ... 100 kHz 50 Hz	1,60 % + 0,12 V/m	

The dimensionless parts of the measurement uncertainty are relative values, referred to the measured value.

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