



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO
Swiss Accreditation Service SAS

SCS Directory

Accreditation number: SCS 0125

International standard: ISO/IEC 17025:2017

Swiss standard: SN EN ISO/IEC 17025:2018

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Initial accreditation: 04.07.2011
Current accreditation: 04.07.2021 to 03.07.2026
Scope of accreditation see: www.sas.admin.ch
(Accredited bodies)

Scope of accreditation as of 04.07.2021

Calibration laboratory for absolute humidity, relative humidity and temperature

Calibration and Measurement Capability (CMC)

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Capability \pm ^{1) 2)}	Remarks
Frost / dew point	- 90 °C ... - 80 °C	Permanent laboratory	0,40 K ... 0,20 K	Primary realization
	- 80 °C ... - 60 °C		0,20 K ... 0,050 K	
	- 60 °C ... - 5 °C		0,050 K	
	- 20 °C ... + 70 °C		0,030 K	
	>+ 70 °C ... + 90 °C		0,040 K	
	>+ 90 °C ... + 95 °C		0,045 K	
Frost / dew point	- 90 °C ... - 85 °C		0,52 K ... 0,32 K	Comparison with a condensation hygrometer
	- 85 °C ... - 75 °C		0,32 K ... 0,12 K	
	- 75 °C ... - 60 °C		0,12 K ... 0,070 K	
	- 60 °C ... <- 20 °C		0,070 K	

¹⁾ The given extended measurement uncertainty is the standard uncertainty of the measurement multiplied by an extension factor $k = 2$, which corresponds to a confidence level of about 95% for a normal distribution.

²⁾ Where the uncertainty is expressed as a range, this corresponds to a linear function.



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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Capability \pm ^{1) 2)}	Remarks	
Relative humidity	- 20 °C ... + 60 °C	On-site calibration	0,050 K	Comparison with a condensation hygrometer	
	>+ 60 °C ... + 95 °C		0,070 K		
	- 60 °C ... < - 20 °C		0,10 K		
	- 20 °C ... + 60 °C		0,080 K		
	>+ 60 °C ... + 95 °C		0,10 K		
	Chamber temperature 0 °C ... + 100 °C	Permanent laboratory and on-site calibration	0,10 %rh	Comparison with a condensation hygrometer and a PRT	
	0,50 %rh ... 10 %rh				
	Chamber temperature 0 °C ... + 15 °C				
	10 %rh ... 98 %rh				
	Chamber temperature >+ 15 °C ... + 100 °C				
Temperature	10 %rh ... 98 %rh		0,10 %rh ... 0,55 %rh	Best measurement capability expressed as absolute uncertainty	
	- 100 °C ... + 180 °C				
Resistance thermometer	- 50 °C ... + 100 °C	Permanent laboratory	0,01 K	In a liquid bath	
	On-site calibration		0,03 K	Comparison with a PRT	
	1 Ω ... 150 Ω		0,40 mΩ ... 1,2 mΩ		
	150 Ω ... 350 Ω		1,2 mΩ ... 3,2 mΩ		
	Converted to IEC 60751		1,1 mK ... 3,2 mK		
	- 200 °C ... + 130 °C				
	+ 130 °C ... + 715 °C				
	Converted to ITS 90, Pt100		3,2 mK ... 10,7 mK		
	- 200 °C ... + 130 °C				
	+ 130 °C ... + 715 °C				
	Converted to ITS 90, Pt25		0,30 mK ... 3,0 mK		
	- 200 °C ... + 606 °C				

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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Capability \pm ¹⁾ ²⁾	Remarks
DC Resistance / Resistors	1 Ω ... 25 Ω 25 Ω ... 100 Ω 100 Ω ... 200 Ω 200 Ω ... 400 Ω		0,030 mΩ ... 0,055 mΩ 0,055 mΩ ... 0,25 mΩ 0,25 mΩ ... 0,71 mΩ 0,71 mΩ ... 2,5 mΩ	In air at temperature from 0 °C to 60 °C

In case of contradictions in the language versions of the directories, the German version shall apply.

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²⁾ Where the uncertainty is expressed as a range, this corresponds to a linear function.