



## 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: 04.07.2016 to 03.07.2021  
Scope of accreditation see: [www.sas.admin.ch](http://www.sas.admin.ch)  
(Accredited bodies)

### Scope of accreditation as of 16.01.2020

#### 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 $\pm$ <sup>1) 2)</sup>	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	

<sup>1)</sup> 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.

<sup>2)</sup> 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 $\pm$ <sup>1) 2)</sup>	Remarks	
<b>Frost / dew point</b>	- 90 °C ... - 85 °C	Permanent laboratory	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		
	- 20 °C ... + 60 °C		0,050 K		
	>+ 60 °C ... + 95 °C		0,070 K		
	- 60 °C ... <- 20 °C	On-site calibration	0,10 K		Comparison with a condensation hygrometer
	- 20 °C ... + 60 °C	0,080 K			
<b>Relative humidity</b>	>+ 60 °C ... + 95 °C	Permanent laboratory and on-site calibration	0,10 K	Comparison with a condensation hygrometer and a PRT	
	Chamber temperature 0 °C ... + 100 °C		0,10 %rh		
	Chamber temperature 0 °C ... + 15 °C		0,10 %rh ... 0,65 %rh		Best measurement capability expressed as absolute uncertainty
	10 %rh ... 98 %rh				
<b>Temperature</b>	Chamber temperature >+ 15 °C ... + 100 °C	Permanent laboratory	0,10 %rh ... 0,55 %rh	In a liquid bath	
	10 %rh ... 98 %rh				
Resistance thermometer	- 100 °C ... + 180 °C	Permanent laboratory	0,01 K	Comparison with a PRT	
	- 50 °C ... + 100 °C	On-site calibration	0,03 K		

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Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Capability $\pm$ <sup>1) 2)</sup>	Remarks
Temperature indicator with resistance input	1 $\Omega$ ... 150 $\Omega$	Permanent laboratory	0,40 m $\Omega$ ... 1,2 m $\Omega$	With fixed resistors
	150 $\Omega$ ... 350 $\Omega$		1,2 m $\Omega$ ... 3,2 m $\Omega$	
	Converted to IEC 60751			
	- 200 °C ... + 130 °C		1,1 mK ... 3,2 mK	
	+ 130 °C ... + 715 °C		3,2 mK ... 10,7 mK	
	Converted to ITS 90, Pt100			
DC Resistance / Resistors	- 200 °C ... + 130 °C	Permanent laboratory	0,30 mK ... 3,0 mK	In air at temperature from 0 °C to 60 °C
	+ 130 °C ... + 715 °C		3,0 mK ... 10,3 mK	
	Converted to ITS 90, Pt25			
	- 200 °C ... + 606 °C		0,50 mK ... 7,40 mK	
	1 $\Omega$ ... 25 $\Omega$		0,030 m $\Omega$ ... 0,055 m $\Omega$	
	25 $\Omega$ ... 100 $\Omega$		0,055 m $\Omega$ ... 0,25 m $\Omega$	
100 $\Omega$ ... 200 $\Omega$	0,25 m $\Omega$ ... 0,71 m $\Omega$			
200 $\Omega$ ... 400 $\Omega$	0,71 m $\Omega$ ... 2,5 m $\Omega$			

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