

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of
EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the calibration laboratory

Günther GmbH Temperaturmesstechnik
Bauhofstraße 12, 90571 Schwaig

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out calibrations in the following fields:

Thermodynamic quantities

- Temperature quantities**
- Resistance thermometers
- Thermocouples

The accreditation certificate shall only apply in connection with the notice of accreditation of 27.05.2016 with the accreditation number D-K-15220-01 and is valid until 08.04.2019. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 2 pages.

Registration number of the certificate: **D-K-15220-01-00**

Braunschweig,
27.05.2016

Dr. Michael Wolf
Head of Division

Translation issued:
27.05.2016


Head of Division

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-K-15220-01-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 27.05.2016 to 08.04.2019

Date of issue: 27.05.2016

Holder of certificate:

Günther GmbH Temperaturmesstechnik
Bauhofstraße 12, 90571 Schwaig

Head:

Dipl.-Ing. (FH) Hans Brendel

Deputy:

Dipl.-Ing. (FH) Markus Hauenstein

Rainer Sellinger

Accredited as calibration laboratory since: 09.04.2014

Calibrations in the fields:

Thermodynamic quantities

Temperature quantities

- Resistance thermometers
- Thermocouples

Abbreviations used: see last page

The calibration laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use calibration standards or equivalent calibration procedures listed here with different issue dates.

The calibration laboratory maintains a current list of all calibration standards / equivalent calibration procedures within the flexible scope of accreditation.

Permanent Laboratory

Measured quantity / Calibration item	Range	Measurement conditions / procedure	Best measurement capability ¹⁾	Remarks
Temperature Resistance thermometers	-20 °C to 100 °C	in temperature controlled liquid baths DAkKS-DKD-R 5-1:2010	0,1 K	Comparison with standard resistance thermometers
	-80 °C to -40 °C	in dry block calibrators DAkKS-DKD-R 5-1:2010	0,15 K	
	> -40 °C to 400 °C		0,10 K	
	> 400 °C to 600 °C		0,15 K	
Noble metal thermocouples	-20 °C to 100 °C	in temperature controlled liquid baths DAkKS-DKD-R 5-3:2010	0,6 K	Comparison with standard resistance thermometers
	-40 °C to 100 °C	in dry block calibrators	0,5 K	
	> 100 °C to 600 °C	DAkKS-DKD-R 5-3:2010	0,4 K	
	> 600 °C to 900 °C	in tube furnaces DAkKS-DKD-R 5-3:2010	1,2 K	Comparison with standard thermocouples
	> 900 °C to 1300 °C		1,4 K	
Base metal thermocouples	-20 °C to 100 °C	in temperature controlled liquid baths DAkKS-DKD-R 5-3:2010	0,5 K	Comparison with standard resistance thermometers
	-40 °C to 600 °C	in dry block calibrators DAkKS-DKD-R 5-3:2010	0,5 K	
	> 600 °C to 900 °C	in tube furnaces DAkKS-DKD-R 5-3:2010	1,2 K	Comparison with standard thermocouples
	> 900 °C to 1300 °C		1,4 K	

Abbreviations used:

DAkKS-DKD-R Calibration Guide of Deutsche Akkreditierungsstelle GmbH

1) The best measurement capabilities are stated according to DAkKS-DKD-3 (EA-4/02). These are expanded uncertainties of measurement with a coverage probability of 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.