DAkkS
Deutsche
Akkreditierungsstelle

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-K-17060-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **30.07.2024**

Date of issue: 30.07.2024

Holder of accreditation certificate:

ifm prover gmbh Sensorik für die Prozeß- und Verfahrenstechnik
Waldesch 9, 88069 Tettnang

with the location

ifm prover gmbh Sensorik für die Prozeß- und Verfahrenstechnik
Waldesch 9, 88069 Tettnang

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.

Calibration in the fields:

Thermodynamic quantities
Temperature quantities
- **Resistance thermometers**
- **Direct reading thermometers**
- **Temperature transmitters, data loggers**

Mechanical quantities
- **Pressure**

Fluid quantities
- **Gas flow rate**

Within the scope of accreditation marked with *) 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.

This certificate annex 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 given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at https://www.dakks.de.

Abbreviations used: see last page

DAkkS Deutsche Akkreditierungsstelle

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
Temperature Resistance thermometers direct reading thermometers, data loggers and transmitters with resistance sensor *)	–20 °C to 150 °C	DKD-R 5-1:2018 in liquid baths	0.1 K	Comparison with standard resistance thermometers
Pressure Negative and positive gauge pressure p_e *)	–1 bar to –0.03 bar	DKD-R 6-1:2014	$2 \cdot 10^{-4} \cdot p_e$; but not less than 20 µbar	Pressure medium: Gas
	0 bar; 0.015 bar to 1 bar			
Positive gauge pressure p_e *)	0 bar; 1 bar to 35 bar		$2 \cdot 10^{-4} \cdot p_e$; but not less than 750 µbar	Pressure medium: Fluids
	> 35 bar to 700 bar		$2 \cdot 10^{-4} \cdot p_e$; but not less than 15 mbar	
Gas flow rate Volume flow rate of flowing gases (standard volume flow)	0.05 m³/h to < 1.5 m³/h	KV-F001:2020-09	1.0 %	Calibration gas: dry air below 2.7 bar (absolute pressure). Devices with visual indicator and / or analogue output (current, voltage)
	1.5 m³/h to 1000 m³/h		0.60 %	
Mass flow rate of flowing gases	0.06 kg/h to < 1.9 kg/h		1.0 %	
	1.9 kg/h to 1200 kg/h		0.60 %	

Abbreviations used:

CMC	Calibration and measurement capabilities
DKD-R	Guideline of Deutscher Kalibrierdienst (DKD), published by Physikalisch-Technische Bundesanstalt
KV-F001	Procedure of ifm prover gmbh