

Deutsche Akkreditierungsstelle GmbH
German Accreditation Body

Annex to the Accreditation Certificate D-K-15140-01-00
according to DIN EN ISO/IEC 17025:2005

Period of validity: 2018-01-24 to 2023-01-23

Date of issue: 2018-01-24

Holder of certificate:

Deutsche WindGuard Wind Tunnel Services GmbH
Oldenburger Str. 65, 26316 Varel, Germany

Head: Dieter Westermann

Deputy: Peter Busche

Accredited as calibration laboratory since: 2003-01-21

Calibrations in the fields:

Fluid quantities

– **Velocity of gases**

Abbreviations used: see last page

Permanent Laboratory

Measured quantity / Calibration item	Range	Measurement conditions / procedure	Best measurement capability ¹⁾	Remarks
Velocity of gases (air) Absolute value of flow vector Anemometer	0.5 m/s to 16 m/s	ISO 16622:2002 ISO 17713-1:2007 VA Anemometer calibration (D5831 Version 13)	0.05 m/s	Wind tunnel: Type Göttingen Nozzle: 1.0 m x 1.0 m, At the range from 4 m/s to 30 m/s additional nozzle: 1.2 m x 1.2 m
	> 16 m/s to 38 m/s	VA Calibration of wind sensors at non horizontal air flow (D5832 Version 2)	0.1 m/s	Anemometer inclination at non horizontal air flow: -32° to 32° (Nozzle: 1.0 m x 1.0 m)
	4 m/s to 16 m/s	IEC 61400-12-1:2017	0.05 m/s	
Direction of flow vector Anemometer, wind direction sensors	0° to 360°	IEC 61400-12-1:2017 ISO 16622:2002 ISO 17713-1:2007 VA Calibration of wind direction sensors (D5836 Version 4)	0.8°	Wind tunnel: Type Göttingen Nozzle: 1.0 m x 1.0 m

Abbreviations used:

VA In house calibration procedure of calibration laboratory

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.