

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-18192-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 21.09.2021

Date of issue: 21.09.2021

Holder of certificate:

**ITAP - Institut für technische und angewandte Physik GmbH
Marie-Curie-Straße 8, 26129 Oldenburg**

Tests in the fields:

determination of vibrations; underwater noise

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

*The certificate together with the annex reflects the status as indicated by the date of issue.
The current status of any given scope of accreditation may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

Abbreviations used: see last page

Page 1 of 3

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

Annex to the accreditation certificate D-PL-18192-01-00

1 Methods for the determination of emissions and immissions of vibrations

DIN 45669-2 2005-06	Measurement of vibration immissions – Part 2: Measurement procedure
DIN 4150-1 2001-06	Vibrations in the building and construction industry – Part 1: Prediction of vibration parameters
DIN 4150-2 1999-06	Vibrations in the building and construction industry – Part 2: Effects on persons in buildings
DIN 4150-3 2016-12	Vibrations in the building and construction industry – Part 3: Effects on structural facilities
LAI-Erschütterungs-LL 2018	Indications for the measurement, evaluation and reduction of vibration immissions

2 Measurement of underwater noise

DIN SPEC 45653 2017-04	Offshore wind farms In-situ determination of the insertion loss of sound-reducing measures under water
ISO 18406 2017-04	Underwater acoustics Measurement of radiated underwater noise during the impact pile- driving of piles
BSH 2011-10	Offshore wind farms Measuring specification for underwater noise measurements
BSH 2013-07	Offshore wind farms Measuring specification for the quantitative determination of the effectiveness of noise abatement measures
PA Nr. 17 2017-03	Offshore – Underwater noise Prognosis for underwater noise events according to the directive of the BSH

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Abbreviations used:

BSH	Federal Maritime and Hydrographic Agency
DIN	German Institute for Standardization e. V. (e. V. = registered association)
IEC	International Electrotechnical Commission
EN	European Standard
ISO	International Organization for Standardization
LAI	Länder Committee for Immission Control
PA	Inspection Instruction of the ITAP – Institute for Technical and Applied Physics GmbH
SPEC	Specification