



SLOVENSKI STANDARD
oSIST prEN ISO 18563-2:2024
01-januar-2024

Neporušitvene preiskave - Karakterizacija in preverjanje ultrazvočne opreme faznih sistemov - 2. del: Matrične sonde (ISO/DIS 18563-2:2023)

Non-destructive testing - Characterization and verification of ultrasonic phased array equipment - Part 2: Array probes (ISO/DIS 18563-2:2023)

Zerstörungsfreie Prüfung - Charakterisierung und Verifizierung der Ultraschall-Prüfausrüstung mit Phased-Arrays - Teil 2: Prüfköpfe (ISO/DIS 18563-2:2023)

Essais non destructifs - Caractérisation et vérification de l'appareillage de contrôle par ultrasons en multiéléments - Partie 2: Transducteurs multiéléments (ISO/DIS 18563-2:2023)

Ta slovenski standard je istoveten z: prEN ISO 18563-2

<https://standards.iteh.ai/catalog/standards/sist/0787ac94-4304-4137-ab23-74485466f0b1/osist-pren-iso-18563-2-2024>

ICS:

19.100 Neporušitveno preskušanje Non-destructive testing

oSIST prEN ISO 18563-2:2024

en,fr,de

DRAFT INTERNATIONAL STANDARD

ISO/DIS 18563-2

ISO/TC 135/SC 3

Secretariat: DIN

Voting begins on:
2023-11-17Voting terminates on:
2024-02-09

Non-destructive testing — Characterization and verification of ultrasonic phased array equipment —

Part 2: Array probes

ICS: 19.100

iTeh Standards (<https://standards.iteh.ai>) Document Preview

[oSIST prEN ISO 18563-2:2024](https://standards.iteh.ai/catalog/standards/sist/0787ac94-4304-4137-ab23-74485466f0b1/osist-pren-iso-18563-2-2024)<https://standards.iteh.ai/catalog/standards/sist/0787ac94-4304-4137-ab23-74485466f0b1/osist-pren-iso-18563-2-2024>

This document is circulated as received from the committee secretariat.

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

ISO/CEN PARALLEL PROCESSING



Reference number
ISO/DIS 18563-2:2023(E)

© ISO 2023

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[oSIST prEN ISO 18563-2:2024](https://standards.iteh.ai/catalog/standards/sist/0787ac94-4304-4137-ab23-74485466f0b1/osist-pren-iso-18563-2-2024)

<https://standards.iteh.ai/catalog/standards/sist/0787ac94-4304-4137-ab23-74485466f0b1/osist-pren-iso-18563-2-2024>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2023

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	2
5 General compliance	2
6 Technical information for array probes	3
7 Test equipment	4
7.1 Electronic equipment.....	4
7.2 Test setup.....	4
7.2.1 General.....	4
7.2.2 Contact technique.....	4
7.2.3 Immersion technique.....	5
8 Performance tests for array probes	5
8.1 General.....	5
8.2 Physical aspects.....	5
8.2.1 Method.....	5
8.2.2 Acceptance criterion.....	5
8.3 Relative pulse-echo sensitivity variation.....	5
8.3.1 General.....	5
8.3.2 Method.....	5
8.3.3 Acceptance criteria.....	6
8.4 Frequency, bandwidth and pulse duration.....	6
8.4.1 General.....	6
8.4.2 Method.....	6
8.4.3 Acceptance criteria.....	7
8.5 Array probe sensitivity.....	7
8.5.1 General.....	7
8.5.2 Method.....	7
8.5.3 Acceptance criteria.....	8
8.6 Inter-element cross-talk attenuation (optional).....	8
8.6.1 General.....	8
8.6.2 Method.....	8
8.6.3 Acceptance criterion.....	8
8.7 Number of elements out of specification.....	9
8.7.1 General.....	9
8.7.2 Method.....	9
8.7.3 Acceptance criteria.....	9
Bibliography	10

ISO/DIS 18563-2:2023(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in collaboration with ISO Technical Committee TC 135, *Non-destructive testing*, Subcommittee SC 3, *Ultrasonic testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 18563-2:2017), which has been technically revised.

The main changes are as follows:

- terminology and types of array probes modified according to ISO 23423;
- the wording 'measurement' is replaced by 'determination' or 'evaluation', where applicable.

A list of all parts in the ISO 18563 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.