



SLOVENSKI STANDARD
SIST EN ISO 15548-2:2009

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Non-destructive testing - Equipment for eddy current examination - Part 2: Probe characteristics and verification (ISO 15548-2:2008)

Zerstörungsfreie Prüfung - Wirbelstromprüfung - Kenngrößen von Prüfeinrichtungen und deren Verifizierung - Teil 2: Kenngrößen von Sensoren und deren Verifizierung (ISO 15548-2:2008)

Essais non destructifs - Équipement pour examens par courants de Foucault - Partie 2: Caractéristiques et vérification des sondes (ISO 15548-2:2008)

Ta slovenski standard je istoveten z: EN ISO 15548-2:2008

ICS:

19.100 Neporušitveno preskušanje Non-destructive testing

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 15548-2

September 2008

ICS 19.100

Supersedes EN 13860-2:2003

English Version

**Non-destructive testing - Equipment for eddy current
examination - Part 2: Probe characteristics and verification (ISO
15548-2:2008)**

Essais non destructifs - Appareillage pour examen par
courants de Foucault - Partie 2: Caractéristiques des
capteurs et vérifications (ISO 15548-2:2008)

Zerstörungsfreie Prüfung - Wirbelstromprüfung -
Kenngrößen von Prüfeinrichtungen und deren Verifizierung
- Teil 2: Kenngrößen von Sensoren und deren Verifizierung
(ISO 15548-2:2008)

This European Standard was approved by CEN on 6 September 2008.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN ISO 15548-2:2008) has been prepared by Technical Committee CEN/TC 138 "Non-destructive testing", the secretariat of which is held by AFNOR, in collaboration with Technical Committee ISO/TC 135 "Non-destructive testing".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2009, and conflicting national standards shall be withdrawn at the latest by March 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13860-2:2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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INTERNATIONAL
STANDARD

ISO
15548-2

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**Non-destructive testing — Equipment for
eddy current examination —**

Part 2:

Probe characteristics and verification

*Essais non destructifs — Appareillage pour examen par courants de
Foucault —*

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Partie 2: Caractéristiques des capteurs et vérifications
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Reference number
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 15548-2 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 4, *Eddy current methods*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 15548 consists of the following parts, under the general title *Non-destructive testing — Equipment for eddy current examination*:

- *Part 1: Instrument characteristics and verification*
- *Part 2: Probe characteristics and verification*
- *Part 3: System characteristics and verification*

Non-destructive testing — Equipment for eddy current examination —

Part 2: Probe characteristics and verification

1 Scope

This part of ISO 15548 identifies the functional characteristics of a probe and its interconnecting elements and provides methods for their measurement and verification.

The evaluation of these characteristics permits a well-defined description and comparability of eddy current equipment.

By careful choice of the characteristics, a consistent and effective eddy current examination system can be designed for a specific application.

Where accessories are used, these should be characterised using the principles of this part of ISO 15548.

This part of ISO 15548 does not give the extent of verification nor acceptance criteria for the characteristics. These are given in the application documents.

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2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 12718, *Non-destructive testing — Eddy current testing — Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12718 apply.

4 Characteristics of probe and interconnecting elements

4.1 General characteristics

4.1.1 Application

Probes and interconnecting elements are selected to satisfy the requirements of the intended application.

The design is influenced by the instrument with which they are used.

ISO 15548-2:2008(E)**4.1.2 Probe types**

The probe is described by the following:

- type of material to be examined, i.e. ferromagnetic, non-ferromagnetic with high or low conductivity;
- function, e.g. separate or combined transmit/receive probe;
- family, e.g. coaxial probe, surface probe;
- measurement mode, e.g. absolute, differential;
- purpose of the examination, e.g. detection of discontinuities, sorting or thickness measurement, etc.;
- specific features, e.g. focused, shielded, etc.

4.1.3 Interconnecting elements

They may include the following:

- cables and/or extensions;
- connectors;
- slip rings;
- rotating heads;
- transformers;
- active devices, e.g. multiplexer, amplifier, etc.

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4.1.4 Physical characteristics

The following shall be stated among others:

- external size and shape;
- weight;
- information about mechanical mounting;
- model number and serial number;
- material of manufacture of probe housing;
- composition and thickness of facing material;
- presence and purpose of core or shield;
- type of interconnecting elements (see 4.1.3);
- orientation mark (direction for maximum sensitivity, see 6.2.3.3);
- position mark (electrical centre, see 6.2.3.4).