BS EN ISO 20339:2017

BSI Standards Publication

Non-destructive testing — Equipment for eddy current examination — Array probe characteristics and verification

National foreword

This British Standard is the UK implementation of EN ISO 20339:2017. It is identical to ISO 20339:2017.

The UK participation in its preparation was entrusted to Technical Committee WEE/46, Non-destructive testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Non-destructive testing - Equipment for eddy current examination - Array probe characteristics and verification (ISO 20339:2017)

Essais non destructifs - Appareillage pour examen par courants de Foucault - Caractéristiques des capteurs multiéléments et vérifications (ISO 20339:2017)

Zerstörungsfreie Prüfung - Technische Ausrüstung für die Wirbelstromprüfung - Kenngrößen von Sensorarrays und deren Verifizierung (ISO 20339:2017)

This European Standard was approved by CEN on 5 February 2017.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 20339:2017) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with Technical Committee CEN/TC 138 “Non-destructive testing” the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by October 2017, and conflicting national standards shall be withdrawn at the latest by October 2017.

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.

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Endorsement notice

The text of ISO 20339:2017 has been approved by CEN as EN ISO 20339:2017 without any modification.

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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.

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).

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For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 4, *Eddy current testing.*

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INTERNATIONAL STANDARD ISO 20339:2017(E)

Non-destructive testing — Equipment for eddy current examination — Array probe characteristics and verification

1 Scope

This document identifies the functional characteristics of eddy current array probes and their 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 array probes.

Where relevant, this document gives recommendations for acceptance criteria for the characteristics.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 — Vocabulary*

ISO 15548-1 , *Non-destructive testing — Equipment for eddy current examination — Part 1: Instrument characteristics and verification*

ISO 15548-2:2013 , *Non-destructive testing — Equipment for eddy current examination — Part 2: Probe characteristics and verification*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
element
single physical component such as a coil, a GMR or a Hall probe which has a basic function of excitation or reception

3.2
pattern
single physical and electronic arrangement of simultaneously active elements

3.3
sequencing
chronology of the activation of patterns

3.4
threshold
lowest acceptable sensitivity value defined in an application document