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OTSETOIMELISED ELEKTRILISED ANALOOG-NÄITMÕÕTERIISTAD JA NENDE LISATARVIKUD. OSA 9: SOOVITATAVAD KATSEMEETODID

Direct acting indicating analogue electrical measuring instruments and their accessories - Part 9: Recommended test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60051-9

April 2021

ICS 17.220.20

Supersedes EN 60051-9:1989 and all of its amendments and corrigenda (if any)

English Version

Direct acting indicating analogue electrical measuring instruments and their accessories - Part 9: Recommended test methods (IEC 60051-9:2019)

Appareils de mesure électriques indicateurs analogiques à action directe et leurs accessoires - Partie 9: Méthodes d'essai recommandées (IEC 60051-9:2019)

Direkt wirkend anzeigende analoge elektrische Messgeräte und ihr Zubehör - Teil 9: Empfohlene Prüfverfahren (IEC 60051-9:2019)

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Europäisches Komitee für Elektrotechnische Normung

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European foreword

The text of document 85/663/FDIS, future edition 5 of IEC 60051-9, prepared by IEC/TC 85 "Measuring equipment for electrical and electromagnetic quantities" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60051-9:2021.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2021-10-30
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2024-04-30

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IEC 60068-2-27	NOTE	Harmonized as EN 60068-2-27

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60051-1	2016	Direct acting indicating analogue electrical measuring instruments and their accessories – Part 1: Definitions and general requirements common to all parts	EN 60051-1	2017
IEC 60068-2-6	-	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	-
IEC 61000-4-8	-	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8	-
IEC 61010-1	2010	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements	EN 61010-1	2010
IEC 61010-2-030	-	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-030: Particular requirements for equipment having testing or measuring circuits	EN IEC 61010-2-030	-
IEC 61326-1	2012	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	EN 61326-1	2013
IEC 61326-2-1	-	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-1: Particular requirements - Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications	EN 61326-2-1	-

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IEC 60051-9

Edition 5.0 2019-02

INTERNATIONAL STANDARD

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Direct acting indicating analogue electrical measuring instruments and their accessories –
Part 9: Recommended test methods

Appareils de mesure électriques indicateurs analogiques à action directe et leurs accessoires –
Partie 9: Méthodes d'essai recommandées



IEC 60051-9:2019-02(en-fr)

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IEC 60051-9

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INTERNATIONAL STANDARD

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Partie 9: Méthodes d'essai recommandées

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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DIRECT ACTING INDICATING ANALOGUE ELECTRICAL MEASURING INSTRUMENTS AND THEIR ACCESSORIES –

Part 9: Recommended test methods

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60051-9 has been prepared by IEC technical committee 85: Measuring equipment for electrical and electromagnetic quantities.

This fifth edition cancels and replaces the fourth edition published in 1988, Amendment 1:1994 and Amendment 2:1995. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) adding performance requirements for test equipment;
b) updating the references to the applicable standards for test methods.

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The text of this International Standard is based on the following documents:

FDIS	Report on voting
85/663/FDIS	85/672/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This International Standard is to be used in conjunction with IEC 60051-1:2016.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60051 series, published under the general title *Direct acting indicating analogue electrical measuring instruments and their accessories*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

IEC 60051 is published in separate parts according to the following structure and under the general title *Direct acting indicating analogue electrical measuring instruments and their accessories*.

Part 1: Definitions and general requirements common to all parts

Part 2: Special requirements for ammeters and voltmeters

Part 3: Special requirements for wattmeters and varmeters

Part 4: Special requirements for frequency meters

Part 5: Special requirements for phase meters, power factor meters and synchroscopes

Part 6: Special requirements for ohmmeters (impedance meters) and conductance meters

Part 7: Special requirements for multi-function instruments

Part 8: Special requirements for accessories

Part 9: Recommended test methods

IEC 60051-9 is not complete in itself and is read in conjunction with IEC 60051-1.

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