OTSETOIMELISED ELEKTRILISED ANALOOG-NÄITMÕÕTERIISTAD JA NENDE LISASEADISED. OSA 8: ERINÕUDED LISASEADISTELE

Direct acting indicating analogue electrical measuring instruments and their accessories - Part 8: Special requirements for accessories



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60051-8:2018 sisaldab Euroopa standardi EN IEC 60051-8:2018 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60051-8:2018 consists of the English text of the European standard EN IEC 60051-8:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 16.03.2018.	Date of Availability of the European standard is 16.03.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

#### ICS 17.220.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Koduleht <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN IEC 60051-8** 

March 2018

ICS 17.220.20

Supersedes EN 60051-8:1989

#### **English Version**

Direct acting indicating analogue electrical measuring instruments and their accessories - Part 8: Special requirements for accessories (IEC 60051-8:2017)

Appareils mesureurs électriques indicateurs analogiques à action directe et leurs accessoires - Partie 8: Exigences particulières pour les accessoires (IEC 60051-8:2017)

Direkt wirkende anzeigende elektrische Meßgeräte und ihr Zubehör - Meßgeräte mit Skalenanzeige - Teil 8: Spezielle Anforderungen für Zubehör (IEC 60051-8:2017)

This European Standard was approved by CENELEC on 2018-01-19. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

#### **European foreword**

The text of document 85/561/CDV, future edition 5 of IEC 60051-8, 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 60051-8:2018.

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)	2018-10-19

 latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-01-19

This document supersedes EN 60051-8:1989.

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directives.

For the relationship with EU Directives see informative Annex ZZ, which is an integral part of this document.

#### **Endorsement notice**

The text of the International Standard IEC 60051-8:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60051-9<sup>1</sup> NOTE Harmonized as EN 60051-9<sup>2</sup>.

2

<sup>&</sup>lt;sup>1</sup> To be published. Stage at the time of publication: IEC CDV 60051-9:2018.

 $<sup>^{2}\,</sup>$  To be published. Stage at the time of publication: prEN 60051-9:2018.

## 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 IEC 60051-1	<u>Year</u> 2016	<u>Title</u> Direct acting indicating analogue electrical	<u>EN/HD</u> EN 60051-1	<u>Year</u> 2017
		measuring instruments and their accessories – Part1: Definitions and general requirements common to all parts		
		O,		
		9		
			Ô.	
			9	
			4	
				S

### CONTENTS

Г	JKEWO	KU	4
IN	TRODU	CTION	6
1	Scop	e	7
2	Norm	ative references	7
3	Term	s and definitions	7
4		ription, classification and compliance	
4		Description	
	4.1	Classification	
	4.2		
	4.3 4.3.1	Compliance with the requirements of this standard	
	4.3.1		
	4.3.2		
5		irements	
5	•		
	5.1	Reference conditions	
	5.2	Limits of intrinsic uncertainty, fiducial value	
	5.2.1	,	
	5.2.2		
	5.2.3		
	5.3	Nominal range of use and variations	
	5.3.1		
	5.3.2		
	5.3.3		
	5.4	Operating uncertainty, overall system uncertainty and variations  Electrical requirements	
	5.5		
	5.5.1 5.5.2		
	5.5.3		
	5.5.4		
	5.5.5		
	5.5.6		
	5.6 5.6.1	Constructional requirements	
	5.6.1	·	
	5.6.2		
	5.6.4	3 1	
	5.6.5		
	5.6.6		
	5.6.7		
	5.6.8		
	5.6.9	· /	
	5.6.1		
6		nation, markings and symbols	
U			
	6.1	Information	
	6.2	Markings, symbols and their locations	12
	6.3	Markings relating to the reference values and nominal ranges of use of influence quantities	12

6.4	The symbols for marking instruments and accessories
6.5	Markings and symbols for terminals12
6.6	Instructions for use
	age12
	rules
	normative) Nonconformity classification of tests13
Bibliograp	hy14
Table 1 –	Limits of the nominal range of use and permissible variations9
Table 2 –	Overloads of short duration10
Table A.1	- Nonconformity classification of tests
	Then to a previous general and a true

#### 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 60051-8 is not complete in itself and is read in conjunction with IEC 60051-1.

All of these parts are arranged in the same format and a standard relationship between an throw commatic. subject and clause number is maintained throughout these parts. This arrangement will assist the reader of IEC 60051 to distinguish information relating to the different types of instruments.