

**Electrical relays - Part 21: Vibration, shock, bump and seismic tests on measuring relays and protection equipment - Section 1: Vibration tests (sinusoidal)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN 60255-21-1:2003 sisaldab Euroopa standardi EN 60255-21-1:1995 ingliskeelset teksti.	This Estonian standard EVS-EN 60255-21-1:2003 consists of the English text of the European standard EN 60255-21-1:1995.
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 14.11.1995.	Date of Availability of the European standard is 14.11.1995.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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Descriptors: Measuring relays, sinusoidal vibration tests

English version

**Electrical relays**  
**Part 21: Vibration, shock, bump and seismic tests on**  
**measuring relays and protection equipment**  
**Section 1: Vibration tests (sinusoidal)**  
**(IEC 255-21-1:1988)**

**Relais électriques**  
**Partie 21: Essais de vibrations, de**  
**chocs, de secousses et de tenue aux**  
**séismes applicables aux relais de**  
**mesure et aux dispositifs de protection**  
**Section 1: Essais de vibrations**  
**(sinusoïdales)**  
**(CEI 255-21-1:1988)**

**Elektrische Relais**  
**Teil 21: Schwing-, Schock-,**  
**Dauerschock- und Erdbebenprüfungen**  
**an Meßrelais und Schutzeinrichtungen**  
**Hauptabschnitt 1: Schwingprüfungen**  
**(sinusförmig)**  
**(IEC 255-21-1:1988)**

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

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

### Foreword

The text of the International Standard IEC 255-21-1:1988, prepared by SC 41B<sup>\*)</sup>, Measuring relays and protection equipment, of IEC TC 41, Electrical relays, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60255-21-1 on 1995-09-20 without any modification.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 1996-10-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 1996-10-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, appendix A and annex ZA are normative.  
Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 255-21-1:1988 was approved by CENELEC as a European Standard without any modification.

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<sup>\*)</sup> IEC SC 41B has been replaced by IEC TC 95, Measuring relays and protection equipment.

**Annex ZA (normative)****Normative references to international publications  
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 50	series	International electrotechnical vocabulary (IEV)	-	-
IEC 68-2-6	1982	Basic environmental testing procedures Part 2: Tests - Test Fc and guidance : Vibration (Sinusoidal)	HD 323.2.6 S2 <sup>1)</sup>	1988
IEC 255-7	1978	Electrical relays - Part 7: Test and measurement procedures for electromechanical all-or-nothing relays	-	-
ISO 2041	1975	Vibration and shock - Vocabulary	-	-

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1) HD 323.2.6 S2 is superseded by EN 60068-2-6:1995, which is based on IEC 68-2-6:1995.

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## ELECTRICAL RELAYS

### Part 21: Vibration, shock, bump and seismic tests on measuring relays and protection equipment

#### Section One: Vibration tests (sinusoidal)

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#### 1. Scope

This standard is part of a series specifying the vibration, shock, bump and seismic requirements applicable to measuring relays and protection equipment (with or without contacts).

This standard includes two types of vibration tests: the vibration response test and the vibration endurance test, and is generally based upon IEC 68-2-6.

The requirements of this standard are applicable only to measuring relays and protection equipment in a new condition.

The tests specified in this standard are type tests.

#### 2. Object

The object of this standard is to state:

- definitions of terms used;
- test conditions;
- standard test severity classes;
- test procedure;
- criteria for acceptance.

#### 3. Definitions

For definitions of general terms not defined in this standard, reference should be made to:

- International Electrotechnical Vocabulary (IEV) [IEC 50];
- IEC 68-2-6;
- relay standards published in the IEC 255 series;
- ISO 2041.

For the purpose of this standard the following definitions shall apply.

*Note.* - Definitions marked with (\*) are derived from IEC 68-2-6.