

| | | |
|------------|---|-----------------------------|
| STN | Interkomové systémy v budovách. Časť 1-1: Všeobecne. | STN EN 62820-1-1 |
| | | 33 4589 |

Building intercom systems - Part 1-1: System requirements - General

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/17

Obsahuje: EN 62820-1-1:2016, IEC 62820-1-1:2016

124516



Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2017

Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnrožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

EN 62820-1-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2016

ICS 13.320

English Version

**Building intercom systems - Part 1-1: System requirements -
General
(IEC 62820-1-1:2016)**

Systèmes d'interphone de bâtiment - Partie 1-1: Exigences
du système - Généralités
(IEC 62820-1-1:2016)

Gebäude-Sprechanlagen - Teil 1-1: Generelle
Systemanforderungen
(IEC 62820-1-1:2016)

This European Standard was approved by CENELEC on 2016-10-27. 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, 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: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 79/559/FDIS, future edition 1 of IEC 62820-1-1, prepared by IEC/TC 79 "Alarm and electronic security systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62820-1-1:2016.

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) 2017-07-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-10-27

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

Endorsement notice

The text of the International Standard IEC 62820-1-1:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 62676-4:2014

NOTE Harmonized as EN 62676-4:2015.

Annex ZA

(normative)

**Normative references to international publications
with their corresponding European publications**

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

NOTE 1 When 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.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|------------------------|-------------|
| IEC 60065 (mod) | 2014 | Audio, video and similar electronic apparatus - Safety requirements | EN 60065 | 2014 |
| IEC 60529 | 1989 | Degrees of protection provided by enclosures (IP Code) | EN 60529 | 1991 |
| - | - | | + corrigendum May 1993 | |
| + A1 | 1999 | | + A1 | 2000 |
| + A2 | 2013 | | + A2 | 2013 |
| IEC 60950-1 (mod) | 2005 | Information technology equipment - Safety - Part 1: General requirements | EN 60950-1 | 2006 |
| - | - | | + A11 | 2009 |
| - | - | | + A12 | 2011 |
| - | - | | + AC | 2011 |
| IEC 61000-6-1 | - | Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments | FprEN 61000-6-1 | - |
| IEC 61000-6-3 | - | Electromagnetic compatibility (EMC) -- Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments | EN 61000-6-3 | - |
| IEC 62262 | - | Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code) | EN 62262 | - |
| IEC 62599-1 | - | Alarm systems -- Part 1: Environmental test methods | - | - |
| IEC 62599-2 | - | Alarm systems -- Part 2: Electromagnetic compatibility - Immunity requirements for components of fire and security alarm systems | - | - |
| ISO 12233 | 2014 | Photography - Electronic still picture imaging - Resolution and spatial frequency responses | - | - |
| ITU-T P.501 | - | Test signals for use in telephonometry | - | - |
| ITU-T P.50 | - | Artificial voices | - | - |
| ITU-T P.51 | 1996 | Artificial mouth | - | - |
| ITU-T P.79 | 2007 | Calculation of loudness ratings for telephone sets | - | - |



INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Building intercom systems –
Part 1-1: System requirements – General**

**Systèmes d'interphone de bâtiment –
Partie 1-1: Exigences du système – Généralités**





THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2016 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - www.iec.ch/searchpub

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing 20 000 terms and definitions in English and French, with equivalent terms in 15 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

65 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Catalogue IEC - webstore.iec.ch/catalogue

Application autonome pour consulter tous les renseignements bibliographiques sur les Normes internationales, Spécifications techniques, Rapports techniques et autres documents de l'IEC. Disponible pour PC, Mac OS, tablettes Android et iPad.

Recherche de publications IEC - www.iec.ch/searchpub

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et aussi une fois par mois par email.

Electropedia - www.electropedia.org

Le premier dictionnaire en ligne de termes électroniques et électriques. Il contient 20 000 termes et définitions en anglais et en français, ainsi que les termes équivalents dans 15 langues additionnelles. Egalelement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

Glossaire IEC - std.iec.ch/glossary

65 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: csc@iec.ch.



INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Building intercom systems –
Part 1-1: System requirements – General**

**Systèmes d'interphone de bâtiment –
Partie 1-1: Exigences du système – Généralités**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 13.320

ISBN 978-2-8322-3626-0

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

| | |
|--|----|
| FOREWORD..... | 5 |
| INTRODUCTION..... | 7 |
| 1 Scope..... | 8 |
| 2 Normative references..... | 8 |
| 3 Terms, definitions and abbreviations | 9 |
| 3.1 Terms and definitions | 9 |
| 3.2 Abbreviations | 11 |
| 4 Functional requirements | 11 |
| 4.1 Basic functional requirements..... | 11 |
| 4.1.1 General | 11 |
| 4.1.2 Requirements for building intercom system with SMU | 12 |
| 4.2 Additional functions..... | 13 |
| 5 Performance requirements | 13 |
| 5.1 Audio characteristics | 13 |
| 5.1.1 Acoustic pressure level | 13 |
| 5.1.2 Overall loudness rating (OLR) | 13 |
| 5.1.3 Overall sensitivity..... | 13 |
| 5.1.4 Frequency response..... | 15 |
| 5.1.5 Acoustic distortion..... | 15 |
| 5.1.6 Channel S/N ratio..... | 15 |
| 5.1.7 Sidetone masking rating (STMR) | 15 |
| 5.1.8 Idle channel noise | 15 |
| 5.1.9 Ringtone sound pressure | 15 |
| 5.1.10 Acoustic stability (Larsen effect)..... | 15 |
| 5.1.11 Acoustic safety | 15 |
| 5.2 Video characteristics | 16 |
| 5.2.1 Image resolution | 16 |
| 5.2.2 Gray scale | 16 |
| 5.2.3 Focus distance..... | 16 |
| 5.2.4 Color reproduction | 16 |
| 5.2.5 Environmental illuminance adaptability | 16 |
| 5.3 Environmental adaptability requirements..... | 16 |
| 5.3.1 Environmental classes | 16 |
| 5.3.2 Environmental adaptability | 16 |
| 5.4 Safety requirements | 17 |
| 5.5 Additional protection under fault conditions | 17 |
| 5.6 Electromagnetic compatibility requirements | 18 |
| 5.6.1 Electromagnetic compatibility immunity requirements..... | 18 |
| 5.6.2 Additional electromagnetic compatibility immunity requirements | 18 |
| 5.6.3 Electromagnetic compatibility emission requirements | 18 |
| 5.7 Markings and mechanical structural requirements | 18 |
| 5.7.1 Markings..... | 18 |
| 5.7.2 Mechanical structure | 19 |
| 5.7.3 Enclosure protection capability | 19 |
| 5.7.4 Anti-vandalism | 19 |
| 6 Test methods..... | 19 |

| | | |
|---|---|----|
| 6.1 | Test conditions..... | 19 |
| 6.1.1 | Test environmental conditions | 19 |
| 6.1.2 | Electrical connection | 20 |
| 6.2 | Function test..... | 20 |
| 6.3 | Audio characteristics test | 20 |
| 6.4 | Video characteristics test | 20 |
| 6.5 | Environmental adaptability test..... | 20 |
| 6.6 | Safety test | 20 |
| 6.7 | Protection under fault conditions test | 20 |
| 6.8 | Electromagnetic compatibility test..... | 20 |
| 6.8.1 | Electromagnetic compatibility immunity test | 20 |
| 6.8.2 | Additional electromagnetic compatibility immunity test | 20 |
| 6.8.3 | Electromagnetic compatibility emission test | 21 |
| 6.9 | Markings and mechanical structure test | 21 |
| 6.9.1 | Markings and scrub resistance test..... | 21 |
| 6.9.2 | Mechanical structure test | 21 |
| 6.9.3 | Enclosure protection capability test | 21 |
| 6.9.4 | Anti-vandalism test..... | 21 |
| 7 | Documentation | 22 |
| Annex A (normative) Test of audio characteristics | | 23 |
| A.1 | Test conditions..... | 23 |
| A.2 | Acoustic pressure level test..... | 23 |
| A.2.1 | Methods..... | 23 |
| A.2.2 | Calibration of test equipment..... | 24 |
| A.2.3 | Test of the acoustic pressure level | 24 |
| A.3 | Overall loudness rating (OLR) test..... | 25 |
| A.3.1 | Measurement of sound pressure P_m at the MRP | 25 |
| A.3.2 | Measurement of output sound pressure P_o of the hands-free EUT..... | 25 |
| A.3.3 | Measurement of output sound pressure P_e of the handset EUT | 26 |
| A.3.4 | Calculations of the OLR | 27 |
| A.4 | Overall sensitivity test | 28 |
| A.4.1 | Test of the overall sensitivity at the hands-free EUT..... | 28 |
| A.4.2 | Test of the overall sensitivity at the handset EUT | 28 |
| A.5 | Frequency response test | 28 |
| A.6 | Acoustic distortion test | 29 |
| A.7 | Channel S/N ratio test | 29 |
| A.8 | Sidetone masking rating (STMR) test..... | 29 |
| A.9 | Idle channel noise test | 30 |
| A.10 | Ringtone sound pressure test | 30 |
| A.11 | Acoustic stability (Larsen Effect) test | 30 |
| A.12 | Acoustic safety test | 31 |
| Annex B (normative) Test of video characteristics | | 33 |
| B.1 | Test conditions..... | 33 |
| B.2 | Connection of the tested system..... | 33 |
| B.3 | Image resolution test..... | 33 |
| B.4 | Gray scale test..... | 34 |
| B.5 | Focus distance test | 34 |
| B.6 | Color reproduction test..... | 35 |
| B.7 | Environmental illumination adaptability test..... | 36 |

| | |
|--|----|
| Annex C (normative) Different requirements between grade 1 and grade 2 | 37 |
| Annex D (normative) Safety requirements correspondence in IEC 60065 or IEC 60950-1 | 39 |
| Bibliography | 40 |
| | |
| Figure 1 – Overall sensitivity at the hands-free unit | 14 |
| Figure 2 – Overall sensitivity at the handset unit..... | 14 |
| Figure A.1 – Measurement of sound pressure P_m at the MRP | 25 |
| Figure A.2 – Measurement of output sound pressure P_o when connected with the handset unit..... | 25 |
| Figure A.3 – Measurement of output sound pressure P_o when connected with the hands-free unit | 26 |
| Figure A.4 – Measurement of output sound pressure P_e when connected with the handset unit..... | 26 |
| Figure A.5 – Measurement of output sound pressure P_e when connected with the hands-free unit | 26 |
| Figure A.6 – Measurement of STMR at the handset EUT | 30 |
| Figure A.7 – Measurement of ringtone sound pressure | 30 |
| Figure A.8 – Acoustic stability test for handset EUT..... | 31 |
| Figure A.9 – Acoustic stability test for hands-free EUT | 31 |
| Figure A.10 – Acoustic safety test | 32 |
| Figure B.1 – Connection diagram for test of video characteristics..... | 33 |
| Figure B.2 – TE170 test chart | 34 |
| Figure B.3 – TE83 test chart | 34 |
| Figure B.4 – Focus test chart | 35 |
| Figure B.5 – Position of the external ring area | 35 |
| Figure B.6 – TE106 test chart | 36 |
| | |
| Table 1 – Environmental adaptability requirements | 17 |
| Table A.1 – Factors for OLR | 28 |
| Table C.1 – Requirements of grade 1 and grade 2 | 37 |
| Table D.1 – Correspondence between IEC 60065 and IEC 60950-1 | 39 |

INTERNATIONAL ELECTROTECHNICAL COMMISSION

BUILDING INTERCOM SYSTEMS –

Part 1-1: System requirements – General

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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62820-1-1 has been prepared by IEC technical committee 79: Alarm and electronic security systems.

The text of this standard is based on the following documents:

| FDIS | Report on voting |
|-------------|------------------|
| 79/559/FDIS | 79/563/RVD |

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

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

A list of all parts in the IEC 62820 series, published under the general title *Building intercom systems*, can be found on the IEC website.

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

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This part of IEC 62820 specifies the technical requirements for building intercom systems and equipment used for building entry. Building intercom systems can function independently and may be extendable to support building security management functions, e.g. extendable with security management unit (SMU) operated by security staff (door-man, concierge, security-guard, porter, etc.), or in conjunction with other systems as per the security requirements of the building. It may consist of: Visitor call unit (VCU), user receiver unit (URU), SMU, power supply, auxiliary device as well as interface-unit to other security-systems.

The IEC 62820 series of standards set out the technical requirements for the composition, functions, performance, test methods of building intercom systems for building entry and application guidelines and consist of five parts:

- Part 1-1: System requirements – General
- Part 1-2: System requirements – IP building intercom systems
- Part 2: Requirements for advanced security building intercom systems
- Part 3-1: Application guidelines – General
- Part 3-2: Application guidelines – Advanced security building intercom systems

The Part 1-1 of IEC 62820 is based on Chinese standard GB/T 31070.1-2014 and European standard EN 50486:2008.

BUILDING INTERCOM SYSTEMS –

Part 1-1: System requirements – General

1 Scope

This Part of IEC 62820 specifies the technical requirements for the composition, functions, performance, and test methods of general building intercom systems.

This part is applicable to the general intercom systems for building entry in residential or commercial buildings.

Door-Entry-System (DES) is a simple kind of convenient Building-Intercom-System (BIS) mainly for user's comfort. This document has classified the general building intercom systems into two grades in Part 1-1. Grade 1 adopts lower requirements to cover DES not used for relevant security applications while grade 2 adopts higher requirements for building intercom systems for security applications. Each grade may adopt different functional and performance requirements, test methods and normative references.

NOTE The different requirements between grade 1 and grade 2 are summarized in Table C.1.

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.

IEC 60065:2014, *Audio, video and similar electronic apparatus – Safety requirements*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 60529:1989/AMD1:1999

IEC 60529:1989/AMD2:2013

IEC 60950-1:2005, *Information technology equipment – Safety – Part 1: General requirements*

IEC 61000-6-1, *Electromagnetic compatibility (EMC) – Part 6-1: Generic standards – Immunity for residential, commercial and light-industrial environments*

IEC 61000-6-3, *Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments*

IEC 62262, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

IEC 62599-1, *Alarm systems – Part 1: Environmental test methods*

IEC 62599-2, *Alarm systems – Part 2: Electromagnetic compatibility – Immunity requirements for components of fire and security alarm systems*

ISO 12233:2014, *Photography – Electronic still picture imaging – Resolution and spatial frequency responses*

ITU-T P.50, *Artificial voices*

ITU-T P.51-1996, *Artificial mouth*

ITU-T P.79-2007, *Calculation of loudness ratings for telephone sets*

ITU-T P.501, *Test signals for use in telephonometry*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

koniec náhľadu – text ďalej pokračuje v platenej verzii STN