SLOVENSKI STANDARD
oSIST prEN IEC 62820-1-1:2025

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Notranja komunikacija v stavbah - 1-1. del: Splošne zahteve

Building intercom systems - Part 1-1: General requirements

Gebäude-Sprechanlagen - Teil 1-1: Generelle Systemanaforderungen

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

Ta slovenski standard je istoveten z: **prEN IEC 62820-1-1:2025**

ICS:

35.240.67	Uporabniške rešitve IT v gradbeništvu	IT applications in building and construction industry
97.120	Avtomatske krmilne naprave za dom	Automatic controls for household use

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COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: **IEC 62820-1-1 ED2**	
DATE OF CIRCULATION: **2025-02-28**	CLOSING DATE FOR VOTING: **2025-05-23**
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IEC TC 79 : ALARM AND ELECTRONIC SECURITY SYSTEMS	
SECRETARIAT: France	SECRETARY: Mr Jean-François LIGNEREUX
OF INTEREST TO THE FOLLOWING COMMITTEES:	HORIZONTAL FUNCTION(S):
ASPECTS CONCERNED:	
☒ SUBMITTED FOR CENELEC PARALLEL VOTING **Attention IEC-CENELEC parallel voting** The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting. The CENELEC members are invited to vote through the CENELEC online voting system.	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING

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TITLE:

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

PROPOSED STABILITY DATE: 2030

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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BUILDING INTERCOM SYSTEMS –

Part 1-1: System requirements – General

FOREWORD

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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

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 – Building intercom systems using the internet protocol (IP)

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 62368-1:2018, *Audio/video, information and communication technology equipment – Part 1: Safety requirements*

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 12233:2017, *Photography – Electronic still picture imaging – Resolution and spatial frequency responses*

ITU-T P.50, *Artificial voices*

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:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1.1
2-way speech
speech between any two units (VCU, URU or SMU) in each direction which may be simultaneous or non-simultaneous

3.1.2
acoustic distortion
distortion of signals at the receiving terminal of the system as a result of system transmission non-linearity and ground noise, expressed as a ratio percentage of the harmonic signal and ground noise at the receiving terminal in proportion to the overall sound pressure

3.1.3
acoustic pressure level
measurement of the acoustic pressure level generated by the equipment under test (EUT) in normal conditions

3.1.4
artificial ear
device used to calibrate the receiver and containing an acoustic coupler and a calibrated microphone used to measure sound pressure

Note 1 to entry: Its overall acoustic impedance within a given frequency band is similar to that of the average human ear, and its characteristics comply with the requirements of type 1 or type 3.2 provided by Article 5 of ITU-T P.57-2011.

3.1.5
artificial mouth
analogue device the sound characteristics of which are similar to the directivity and radiation pattern of the average human mouth

Note 1 to entry: It conforms to the requirements set forth in Article 5 of ITU-T P.51-1996.

3.1.6
auxiliary device
device which extends or facilitates additional functions and interfaces of a building intercom system, such as communications, remote control, 3rd party devices interfaces etc.

3.1.7
building intercom system
BIS
system designed for entry communication in residential or commercial buildings which provides addressing calls, speech and optional video function and is equipped with an electronic unlocking device

3.1.8
channel S/N
sound pressure ratio between signal and ground noise at the receiving terminal under excitation of the nominal sound pressure at the transmitting terminal, expressed in dB

3.1.9
handset unit
device typically coupled to the ear by hand as can be a handset URU or handset SMU

3.1.10
hands-free unit
device that does not need to use the hand during the communication as can be a VCU, hands-free URU or hands-free SMU

3.1.11
idle channel noise
noise expressed in dB(A) which is received in the terminal after the channel connection is established when no signal is transferred

3.1.12
loudness rating guard-ring position
LRGP
fixed position in which the handset of the URU or SMU is used to measure the rating of system loudness

[SOURCE: adapted from ITU-T P.64:2007]

3.1.13
overall loudness rating
OLR
measurement of the loudness in the entire channel from the reference point of the mouth at the transmitting terminal to the ear reference point (ERP) at the receiving terminal, expressed in dB

[SOURCE: adapted from ITU-T P.79:2007]

3.1.14
overall sensitivity
gain of the sound pressure at the reference point of the ear at the reception terminal relative to the excitation sound pressure at the mouth reference point (MRP) at the transmitting terminal, expressed in dB

Note 1 to entry: It is a function of frequency.

3.1.15
security management unit
SMU
device which can be addressed from the call unit (VCU, URU or SMU), provides the means of addressing the calling signal to the desired receiver unit(s) which can be URU or SMU, 2-way speech, the activation of the audio and/or video connection with the VCU and the means to initiate remote unlocking of the controlled entrance