SLOVENSKI STANDARD
SIST EN 50726-1:2024

01-julij-2024

Sistemi za izredne razmere in nevarnosti – 1. del: Sistemi za odzivanje na izredne razmere in nevarnosti (EDRS) – Osnovne zahteve, dolžnosti, odgovornosti in dejavnosti

Emergency and danger systems - Part 1: Emergency and danger response systems (EDRS) - Basic requirements, duties, responsibilities and activities

Notfall- und Gefahren-Systeme - Teil 1: Notfall- und Gefahren-Reaktions-Systeme (NGRS) - Grundlegende Anforderungen, Aufgaben, Verantwortlichkeiten und Aktivitäten

Systèmes d'urgence et de prévention des dangers - Partie 1: Systèmes d'urgence et d'intervention en cas de danger (EDRS) - Exigences de base, fonctions, responsabilités et activités

Ta slovenski standard je istoveten z: **EN 50726-1:2024**

ICS:

13.320	Alarmni in opozorilni sistemi	Alarm and warning systems

SIST EN 50726-1:2024 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50726-1

May 2024

ICS 13.320

English Version

Emergency and danger systems - Part 1: Emergency and danger response systems (EDRS) - Basic requirements, duties, responsibilities and activities

Systèmes d'urgence et de prévention des dangers - Partie 1: Systèmes d'urgence et d'intervention en cas de danger (EDRS) - Exigences de base, fonctions, responsabilités et activités

Notfall- und Gefahren-Systeme - Teil 1: Notfall- und Gefahren-Reaktions-Systeme (NGRS) - Grundlegende Anforderungen, Aufgaben, Verantwortlichkeiten und Aktivitäten

This European Standard was approved by CENELEC on 2024-04-15. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye 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

Ref. No. EN 50726-1:2024 E

Contents

Page

European foreword

This document (EN 50726-1:2024) has been prepared by CLC/TC 79 “Alarm systems”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2025–04–15
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2027–04–15

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.

Any feedback and questions on this document should be directed to the users’ national committee. A complete listing of these bodies can be found on the CENELEC website.

Introduction

This document is based on draft standard E DIN VDE V 0827-1 (VDE V 0827-1):2015-04.

National working body UK 713.1 “Alarm and surveillance systems” of DKE German Commission for Electrical, Electronic and Information Technologies of DIN and VDE (www.dke.de) is responsible for the present document.

A pre-standard is the result of standardization work that has not yet been published as a standard by DIN due to certain reservations with regard to the contents or because of its deviating preparation procedure.

The present pre-standard has become necessary because:

a) the field of emergency and danger response systems (EDRS) is becoming increasingly important;

b) all existing standards and guidelines in the field of alarm system technology apply to specific use cases such as intrusion alarm technology or fire alarm technology, etc.

This standard is aimed in particular at the police, insurance providers, planners, architects, manufacturers and expert companies dealing with safety/security systems, as well as builders, owners, organization in charges, users and occupants of properties at risk (in particular public buildings such as education facilities, agencies, nursery schools and similar facilities).

An EDRS can never replace the detection or alarm function of a fire detection and fire alarm system, voice alarm system, or intrusion/hold-up alarm system (I&HAS). The alarming must always be done by the appropriate alarm system and alarm transmission system. The EDRS has only the function of additional measures.

1 Scope

This document applies to the planning, installation, commissioning, operation and maintenance of an emergency and danger response system. An emergency and danger response system is part of an overall solution for dealing with specific events such as emergencies or crises.

This document

- specifies:
  - technical processes and responsibilities for supporting all procedures from the registration of an event (emergency, danger) up to its final processing;
  - the technical risk management including the definition of safety/security goals and the workflow organization as well as the necessary specifications regarding a technical risk management file;
  - associated duties, responsibilities and activities as parts of an integrated overall risk management process to achieve the safety and security goals, effectiveness and efficiency as well as data and system safety/security;
  - three different grades of safety/security, with the respective product functionalities required to achieve them;
  - the basic requirements for emergency and danger response systems (EDRS) in public buildings such as education facilities (e.g. schools, universities), government facilities, kindergartens and similar facilities;
  - the responsibilities under applicable national law about Safety and Health at Work Laws and thus particularly addresses the responsibility of employers;
- describes:
  - the process of establishing, maintaining and updating a risk management file in which, *inter alia*, the technical risks are listed and evaluated and the residual technical risks are defined, resulting in the grade and structure of the EDRS;
- is intended to support the implementation of:
  - National legal and other provisions (e.g. Act on Equal Opportunities for People with Disabilities, Safety and Health at Work Laws, education laws);
- gives relevant guidance on:
  - the organizational risk management;
- does not replace the specifications of standards to the following systems:
  - fire safety systems including, but not limited to, fire detection and fire alarm systems, fixed firefighting systems, smoke and heat control systems,
  - security systems including, but not limited to, intrusion and hold-up alarm systems, electronic access control systems, external perimeter security systems and video surveillance systems,
  - applicable national standards on call systems.

All such systems can, however, be integrated into an emergency and danger response system (EDRS), taking into account the relevant provisions made in the respective standards for such products and systems.

Other products and systems from the entire field of standardization, such as alarm systems, danger warning and danger alarm systems, escape routing systems, public address systems used to respond to a danger, can also be used in or integrated into an emergency and danger response system if the relevant requirements of the standards for such products or systems are met.

This document does not specify any risk levels, in particular no acceptable residual risks. Technical risk management and organizational risk management are equal parts of the overall risk management.

This document is also applicable to non-public buildings with a similar risk and requirement for protection.

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.

EN 54-11, *Fire detection and fire alarm systems — Part 11: Manual call points*

EN IEC 31010, *Risk management — Risk assessment techniques*

EN 50130-4, *Alarm systems — Part 4: Electromagnetic compatibility — Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems*

EN 50130-5, *Alarm systems — Part 5: Environmental test methods*

EN 50131-1, *Alarm systems — Intrusion and hold-up systems — Part 1: System requirements*

EN 50136-1, *Alarm systems — Alarm transmission systems and equipment — Part 1: General requirements for alarm transmission systems*

EN 50518, *Monitoring and Alarm Receiving Centre*

EN 60529, *Degrees of protection provided by enclosures (IP Code)*

EN IEC 62820-2, *Building intercom systems — Part 2: Requirements for advanced security building intercom systems (ASBIS)*

EN IEC 62820-3-2, *Building intercom systems — Part 3-2: Application guidelines — Advanced security building intercom systems (ASBIS)*

ISO 31000, *Risk management — Guidelines*

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 terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

3.1.1
acceptance test
documented joint test of the emergency and danger response system carried out by the electrically skilled person and the organisation in charge or top tier management, in cooperation with the technical risk

management, as a visual inspection and function test as well as a test as to the completeness of all documents, which is a prerequisite for the subsequent handover to and Commissioning by the organisation in charge

3.1.2
alarm
warning of the presence of a danger to people, property or the environment caused by an alarm state and the request to call for help to avert the danger

3.1.3
alarm condition
status of the existence of a potentially or acutely dangerous situation which requires the attention or reaction of an Intervention force

3.1.4
alarm device
device for warning people or for calling for help in order to avert a danger

Note 1 to entry: It may be part of an emergency and danger response system or an add-on device of such system.

3.1.5
alarm signal
local alarm for danger aversion

EXAMPLE: Audible and/or visual and/or haptic signals and/or voice announcements and/or text displays

3.1.6
alarm transmission systems
alarm transmission equipment and networks used to transfer information concerned with the state of one or more alarm systems and emergency and danger response systems at a supervised premises to one or more annunciation equipment of one or more alarm receiving centres

Note 1 to entry: An alarm transmission system may consist of more than one alarm transmission path.

3.1.7
preliminary alarm verification
verification whether an alarm message is based on a dangerous situation (e.g. by on-site verification, remote verification via voice communication or video image transmission)

3.1.8
alarm state
state of an emergency and danger response system, or part thereof, which results from the response of the system to the presence of a danger

3.1.9
alternative power source
power source capable of powering the emergency and danger response system for a predetermined time when a prime power source is unavailable

3.1.10
terror, rampage, active shooter, school shootings
violent act committed by a perpetrator who has injured or killed a number of people, said number usually being indeterminable in the beginning, in an indiscriminate or targeted manner, in particular by using weapons, explosives, dangerous tools or applying extraordinary use of violence, or situation where such killing or injuring is to be expected and the perpetrator can continue to attack people

3.1.11
system component
single device which, when being interconnected, forms an emergency and danger response system (EDRS)

3.1.12
indication
information (in audible, visual or any other form) which assists the user in the operation of an emergency and danger response system (EDRS)

3.1.13
day of operation
day on which work is done

3.1.14
threat
current danger to the life, physical integrity or freedom of other people who are in the grip of or within the reach of perpetrators with criminal energy or aggressiveness, armed or the availability of flammable or explosive substances or who pose a danger to the general public

3.1.15
user
person entitled to operate an emergency and danger response system

3.1.16
organisation in charge
legal entity or individual which/who is responsible for the operation of the emergency and danger response system and which/who usually bears the costs, e.g. in the form of assigning budgets (e.g. government department, county council, city council, municipal council or employees who are authorised accordingly)

3.1.17
readiness for operation
ability of an emergency and danger response system to capture information and messages from the required function (source) and to analyse (integrator), transport (transmission paths) and output them (receiver)

3.1.18
affected area
section of a property with an associated internal alarm

3.1.19
data and system safety/security

operating state of an EDRS in which important information (data and systems) is adequately protected against impairment of confidentiality, integrity and availability

Note 1 to entry: Data and system safety/security is ensured by guidelines, instructions, infrastructure and services which have been developed to protect important information and systems used to capture, transfer, store and use information in order to help achieve the goals of the organization.

3.1.20
de-escalation call
summoning individuals who are to reduce, mitigate or end conflicts between individuals

3.1.21
efficiency
measure of the achievement of a goal, described by the relationship between the intended goal and the result achieved

3.1.22
instructed person
persons who have been instructed by an electrically skilled person as to the tasks required for operating an emergency and danger response system and who are able to operate the emergency and danger response system on their own

Note 1 to entry: These tasks comprise carrying out or arranging for protective measures and other measures to avert dangers in case of a switch-off or fault of system components and arranging for the correction of the fault or for maintenance in case of degradations.

Note 2 to entry: The tasks require the competencies to fulfil independently the technical requirements of a manageable field of activity and extended general knowledge and extended technical knowledge as to how emergency and danger response systems function and to the organisational measures related to the operation of such systems. Moreover, it is required to keep the knowledge of the emergency and danger response system up to date by learning independently and responsibly.

Note 3 to entry: The completion of the tasks is based on the qualification requirements according to the local responsible Qualifications Framework at the highest appropriate level.

3.1.23
lockdown alarm
alarm informing individuals present on the property to avoid public areas or areas which are easily accessible (e.g. cafeteria, halls, common areas) such that individuals can retreat to areas which can be locked and await evacuation by an Intervention force

3.1.24
electrically skilled person
persons who, based to their technical education, knowledge and experience and knowledge of relevant standards, provisions and guidelines, are able to assess the work assigned to them and to recognize potential dangers

Note 1 to entry: For the field of emergency and danger response systems the requirement is an education from the spectrum of electrical engineering in the field of communication, information, microprocessor, measuring and control technology or general electrical engineering, and experience in the respective other fields and system knowledge regarding the emergency and danger response system technology shall be demonstrated. Moreover, knowledge is required for assessing the existing conditions of the property such as structural fire protection or mechanical security technology.

Note 2 to entry: To assess the technical education, several years of experience in the relevant fields of work can be taken into account in accordance with IEC 60050-826.

Note 3 to entry: The activity requires the ability to independently plan and process comprehensive technical tasks in a complex, specialized and changing environment. Integrated technical knowledge and profound theoretical knowledge of the field are required. The scope and limits of the use of a danger alarm system shall be known. A very broad spectrum of specialized cognitive and practical skills is required. Work processes shall be planned in a cross-process manner, taking into account alternative actions and interactions with adjoining areas. The competence to instruct other individuals and to assist them with profound guidance on learning is a prerequisite. Skilled persons shall be able to present interdisciplinary complex issues in a structured and targeted manner, taking into account the audience the information is intended for. Learning and work objectives established by the skilled persons themselves or by others shall be reflected on, evaluated, pursued in a self-directed manner, and the skilled persons shall assume responsibility for such objectives.

Note 4 to entry: The completion of the tasks is based on the qualification requirements according to the local responsible Qualifications Framework at the highest appropriate level.

3.1.25
receiver
system component fulfilling a technical function of an emergency and danger response system, which receives alarm signals from an integrator, indicates them and forwards them to an assistance provider and transfers to the integrator the responses, control and communication signals received from the assistance provider

3.1.26
power supply
device for supplying power to the emergency and danger response system or parts thereof

3.1.27
reminder signal
signal, e.g. audible signal, which periodically reminds the user that the emergency and danger response system is in a state of limited functionality, e.g. that a function is switched off, alarm devices are switched off, or similar

3.1.28
evaluation
basic examination and skilled assessment as to whether and to what extent something seems to be suitable to fulfil the defined intended purpose

3.1.29
specialist company
company responsible for the phases of design, planning, development, installation, Commissioning, acceptance, instruction of users, Commissioning, documentation and maintenance of the emergency and danger response system and employing at least one electrically skilled

3.1.30
false alarm
alarm which is not based on a danger

3.1.31
remote alarm
alarm directed to an off-site assistance provider, e.g. fire services, police or security company

Note 1 to entry: Remote alarm is referred to alarm transmission system in the EN 50131 series of standards.

3.1.32
remote alarm device
device for forwarding remote alarms, messages and information to an assistance provider

3.1.33
function test
activity after installation, extension, modification or after maintenance work to confirm that the emergency and danger response system is able to fulfil the required function

3.1.34
main power source
power source used to support an emergency and danger response system under normal working conditions

3.1.35
assistance provider

individual or a continuously manned centre (e.g. monitoring and alarm receiving centre (ARC)) commissioned by the organisation in charge, who/which receives alarms, messages and information from the property, verifies them before forwarding them and arranges for the necessary, appropriate measures to be taken, e.g. observes or visits the property

3.1.36
call for help
call to summon help, e.g. first aid

3.1.37
commissioning
start of use of the required function of an installed emergency and danger response system by the organisation in charge

3.1.38
inclusion
all people can participate in society in a self-determined manner, i.e. disabled people, for example, do not have to integrate and adapt to the environment any longer; rather, the environment is equipped such that all people can live equally, no matter how different they are

3.1.39
inspection
measures to determine and assess the current condition of an emergency and danger response system, including identification of the causes of increased wear and determining the required consequences for a future use

3.1.40
maintenance provider
specialised company with electrically skilled staff, which can perform all maintenance work, site visits and extensions and modifications and which provides permanent standby service and has the necessary spare parts and the required equipment available

3.1.41
maintenance
combination of all technical and administrative measures as well as measures taken by management during the life cycle of an emergency and danger response system to maintain the functioning state of the system or to return the system to its functioning state such that it can perform its required function

Note 1 to entry: Maintenance is divided into the basic measures, preventive maintenance, inspection, corrective maintenance and improvement.

3.1.42
corrective maintenance
measures to return an emergency and danger response system to its functioning state, excluding improvements

3.1.43
integrator
system component fulfilling a technical function of an emergency and danger response system, which is used as a control unit including a distribution unit (e.g. switch) for processing, forwarding, redirection and documentation between the source and receiver and which can be integral or split, centralised or decentralised or also be integrated into the source or receiver

3.1.44
internal alarm
alarm signal in the property when triggering functions of the emergency and danger response system to warn individuals present in the affected area with the objective to carry out the required measures (e.g. self-help, personal escape) and to inform an assistance provider, if required

3.1.45
intervention
measures to avoid or limit personal injury, damage to property or financial loss

3.1.46
intervention force
individual or team who carries out measures to avert dangers or limit damage with a view to avoiding or limiting personal injury, damage to property or financial loss

3.1.47
communication
exchange or transmission of signals or information between system components or for or between individuals, in this document

Note 1 to entry: This covers in particular:

— transmission of wanted signals from the source to the receiver or between all technical components/functions;

— transmission of control or confirmation signals from the source to the receiver or between all technical components/functions/system parts;