SLOVENSKI STANDARD
kSIST-TS FprCEN/TS 54-14:2024

01-maj-2024

Sistemi za odkrivanje in javljanje požara ter alarmiranje - 14. del: Smernice za načrtovanje, projektiranje, vgradnjo, preverjanje, uporabo in vzdrževanje

Fire detection and fire alarm systems - Part 14: Guidelines for planning, design, installation, commissioning, use and maintenance

Brandmeldeanlagen - Teil 14: Leitfaden für Planung, Projektierung, Montage, Inbetriebsetzung, Betrieb und Instandhaltung

Systèmes de détection et d'alarme incendie - Partie 14: Lignes directrices pour la planification, la conception, l'installation, la mise en service, l'utilisation et la maintenance

Ta slovenski standard je istoveten z: **FprCEN/TS 54-14**

ICS:

13.220.20	Požarna zaščita	Fire protection
13.320	Alarmni in opozorilni sistemi	Alarm and warning systems

kSIST-TS FprCEN/TS 54-14:2024 **en,fr,de**

TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

FINAL DRAFT FprCEN/TS 54-14

February 2024

ICS 13.220.20

English Version

Fire detection and fire alarm systems - Part 14: Guidelines for planning, design, installation, commissioning, use and maintenance

Systèmes de détection et d'alarme incendie - Partie 14: Lignes directrices pour la planification, la conception, l'installation, la mise en service, l'utilisation et la maintenance

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This draft Technical Specification is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 72.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (FprCEN/TS 54-14:2023) has been prepared by Technical Committee CEN/TC 72 “Fire detection and fire alarm systems”, the secretariat of which is held by BSI.

This document is currently submitted to the Vote on TS.

This document will supersede CEN/TS 54-14:2018.

Compared to CEN/TS 54-14:2018, the following main changes have been made:

- Table A.1 was modified to incorporate new technologies;
- new detector technologies e.g. CO, line type heat detectors, video detection were incorporated;

EN 54 series of standards, *Fire detection and fire alarm systems*, consists of the following parts:

- *Part 1: Introduction;*
- *Part 2: Control and indicating equipment;*
- *Part 3: Fire alarm devices — Sounders;*
- *Part 4: Power supply equipment;*
- *Part 5: Heat detectors — Point detectors;*
- *Part 7: Smoke detectors — Point detectors using scattered light, transmitted light or ionization;*
- *Part 10: Flame detectors — Point detectors;*
- *Part 11: Manual call points;*
- *Part 12: Smoke detectors — Line detectors using an optical beam;*
- *Part 13: Compatibility assessment of system components;*
- *Part 14: Guidelines for planning, design, installation, commissioning, use and maintenance* [CEN Technical Specification]*;*
- *Part 16: Voice alarm control and indicating equipment;*
- *Part 17: Short circuit isolators;*
- *Part 18: Input/output devices;*
- *Part 20: Aspirating smoke detectors;*
- *Part 21: Alarm transmission and fault warning routing equipment;*
- *Part 22: Resettable line-type heat detectors;*
- *Part 23: Fire alarm devices — Visual alarm devices;*

- *Part 24: Components of voice alarm systems — Loudspeakers;*
- *Part 25: Components using radio links;*
- *Part 26: Carbon monoxide detectors — Point detectors;*
- *Part 27: Duct smoke detectors;*
- *Part 28: Non-resettable line type heat detectors;*
- *Part 29: Multi-sensor fire detectors — Point detectors using a combination of smoke and heat sensors;*
- *Part 30: Multi-sensor fire detectors — Point detectors using a combination of carbon monoxide and heat sensors;*
- *Part 31: Multi-sensor fire detectors — Point detectors using a combination of smoke, carbon monoxide and optionally heat sensors;*
- *Part 32: Planning, design, installation, commissioning, use and maintenance of voice alarm systems* [CEN Technical Specification].

Introduction

Guidelines and standards for the planning, design, installation, commissioning, use and maintenance of a fire detection and fire alarm system are published by many different organizations within Europe.

This document is intended as a template to be used in the drafting, review and revision of any such national standards and guidelines. It is intended that this technical specification will assist in the harmonization of practice and standards of fire detection and fire alarm systems throughout Europe.

Many national and regional authorities and organizations within Europe publish services standards for the planning, design, installation, commissioning, verification, handover or maintenance of fire safety systems. The European Standard EN 16763 was intended to create a common guideline for a minimum quality of service by establishing criteria for the quality of service of services providers, the involved staff and the output of services provided. Therefore, compliance with the requirements of EN 16763 for the service provider is recommended.

1 Scope

This document provides guidelines for the application of automatic fire detection and fire alarm systems in and around buildings and civil engineering works. The guideline covers planning, design, installation, commissioning and verification, third party approval, use and maintenance of the systems.

The guidelines cover systems intended for the protection of life and/or the protection of property. The guidelines cover systems with a control and indicating equipment and at least one manual call point or one fire detector. In the event of a fire, the systems may be capable of providing signals to initiate the operation of ancillary equipment (such as fixed fire extinguishing systems, smoke and heat control systems, fire compartment separation) and other precautions and actions (such as machinery shutdown or remote transmission of alarms). These guidelines do not cover the ancillary services themselves or ancillary circuits to interface with them. The guidelines take into account the potential introduction of the Open Description (OD) approach to the EN 54 series.

The guidelines only cover the fire related functions of systems combining fire alarm functions with other non-fire related functions.

The guidelines do not recommend whether or not a fire detection and/or fire alarm system should be installed in any given premises.

This document can be used as a guideline for planning, design, installation, commissioning, use and maintenance of a fire detection and fire alarm system in any country not having any equivalent national standard, or if national equivalent standard is obsolete or not covering certain aspects, e.g. new fire detection technologies.

These guidelines are used by appropriately competent persons. However, guidance is also given to other persons purchasing or using a fire detection and/or fire alarm system.

Smoke alarms manufactured to EN 14604, whether interconnected or not, are not fire detection and fire alarm systems as covered in these guidelines.

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 54-1, *Fire detection and fire alarm systems - Part 1: Introduction*

EN 54-5, *Fire detection and fire alarm systems — Part 5: Heat detectors — Point heat detectors*

EN 54-10, *Fire detection and fire alarm systems - Part 10: Flame detectors - Point detectors*

EN 54-12, *Fire detection and fire alarm systems - Part 12: Smoke detectors - Line detectors using an optical beam*

EN 54-20, *Fire detection and fire alarm systems - Part 20: Aspirating smoke detectors*

EN 54-22, *Fire detection and fire alarm systems — Part 22: Resettable line-type heat detectors*

EN 54-23, *Fire detection and fire alarm systems - Part 23: Fire alarm devices - Visual alarm devices*

EN 54-28, *Fire detection and fire alarm system - Part 28: Non-resettable line-type heat detectors*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 54-1 and the following apply.

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

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp/ui/#home

3.1
acceptance
decision that the installed system meets the requirements of a previously agreed specification

3.2
alarm load
maximum power (normally electrical) that will be required under the fire condition

3.3
approval
acceptance by a third party that the installed system satisfies the requirements of the third party

3.4
approval body
body accepted by an authority having jurisdiction or other competent organization as having the expertise and/or legitimacy necessary to assess the compliance of the installed system with these guidelines

3.5
authority having jurisdiction
body that has powers provided under local, regional, national or European legislation

3.6
beam detector
smoke detector
line detector using a transmitted light beam

Note 1 to entry: See EN 54-12.

3.7
circuit
another word for transmission path

Note 1 to entry: See EN 54 1.

3.8
commissioning engineer
person who carries out the process of commissioning

3.9
configuration
programming the CIE to perform the functions intended by the designer, the relevant guidelines and the fire alarm response strategy

3.10
designer
person or organization taking responsibility for the work outlined in Clause 6

3.11
detection zone card
portable detection zone map, covering one or more individual zones

3.12
detection zone map
diagram showing the structural boundaries of zones, and if necessary, access routes to zones

Note 1 to entry: A detection zone map is usually located in the vicinity of the CIE or at the entrance to the zone.

3.13
false alarm
fire alarm caused by reasons other than fire

Note 1 to entry: There are different words in EU countries used to describe false alarms.

3.14
fault
failure within the system in such a way as to jeopardize the correct functioning of the system

3.15
fault warning
fault signal perceptible to a person

3.16
fault warning receiving station
routing equipment installed in fault warning receiving centre, receiving fault warnings

3.17
field of view
FOV
2D projection/representation of the space and the objects monitored by the detector

3.18
final exit
termination of an escape route from a building giving direct access to a street passageway, walkway or open space and sited to ensure rapid safe dispersal of persons from the vicinity of a building so that they are no longer in danger from fire or smoke

3.19
fire alarm
visual, audible or tactile indication of fire

3.20
fire alarm response strategy
pre-planned procedures which are expected to be followed when a fire alarm occurs