SLOVENSKI STANDARD
SIST EN 54-2:1997/A1:2007

01-marec-2007

Sistemi za odkrivanje in javljanje požara ter alarmiranje - 2. del: Požarna centrala

Fire detection and fire alarm systems - Part 2: Control and indicating equipment

Brandmeldeanlagen - Teil 2: Brandmelderzentralen

Systemes de détection et d'alarme incendie - Partie 2: Equipement de contrôle et de signalisation

Ta slovenski standard je istoveten z: **EN 54-2:1997/A1:2006**

ICS:

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

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EUROPEAN STANDARD

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EN 54-2:1997/A1

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ICS 13.220.20

English Version

Fire detection and fire alarm systems - Part 2: Control and indicating equipment

Systèmes de détection et d'alarme incendie - Partie 2: Equipement de contrôle et de signalisation

Brandmeldeanlagen - Teil 2: Brandmelderzentralen

This amendment A1 modifies the European Standard EN 54-2:1997; it was approved by CEN on 27 April 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This document (EN 54-2:1997/A1:2006) has been prepared by Technical Committee CEN/TC 72 “Fire detection and fire alarm systems”, the secretariat of which is held by BSI.

This Amendment to the European Standard EN 54-2:1997 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2007, and conflicting national standards shall be withdrawn at the latest by December 2007.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

Amendment 1 to this standard improves the additional requirements for software controlled equipment and makes a number of miscellaneous changes, to correct errors and better reflect the current state of the art. It also replaces the descriptions of the individual electromagnetic compatibility immunity tests with a reference to the EMC Product Family Standard EN 50130-4, makes editorial and technical changes to generally improve clarity, and updates the normative references.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Foreword

Replace Date of Withdrawal to read

December 2007

2 Normative references

Clause 2: Delete the existing text and substitute

The following referenced documents are indispensable for the application 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 54-1:1996, *Fire detection and fire alarm systems — Part 1: Introduction*

EN 54-4:1997, *Fire detection and fire alarm systems — Part 4: Power supply equipment*

EN 54-7:2000, *Fire detection and fire alarm systems - Part 7: Smoke detectors - Point detectors using scattered light, transmitted light or ionization*

EN 50130-4:1995, *Alarm systems — Part 4: Electromagnetic compatibility — Product family standard: Immunity requirements for components of fire, intruder and social alarm systems*

EN 60068-1:1994, *Environmental testing - Part 1: General and guidance (IEC 60068-1:1988 + Corrigendum 1988 + A1:1992)*

EN 60068-2-1:1993, *Environmental testing; part 2: tests; tests A: cold (IEC 60068-2-1:1990)*

EN 60068-2-6:1995, *Environmental testing - Part 2: Tests - Tests Fc: Vibration (sinusoidal) (IEC 60068-2-6:1995 + Corrigendum 1995)*

EN 60068-2-47:2005, *Environmental testing - Part 2-47: Test Mounting of specimens for vibration, impact and similar dynamic tests (IEC 60068-2-47:2005)*

EN 60068-2-75:1997, *Environmental testing - Part 2: Tests - Test Eh: Hammer tests (IEC 60068-2-75:1997)*

EN 60068-2-78:2001, *Environmental testing — Part 2-78: Tests, Test Cab: Damp heat, steady state (IEC 60068-2-78:2001)*

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN 60721-3-3:1995, *Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 3: Stationary use at weatherprotected locations (IEC 60721-3-3:1994)*

3 Definitions and abbreviations

Delete 3.1.1 until 3.1.22 and substitute

3.1.1
Deleted (numbering kept)

3.1.2
addressable point
point that can be individually identified at the CIE

3.1.3
alphanumeric display
indicator that is capable of giving information by the display of messages consisting of text and/or numeric characters

3.1.4
functional condition
state of the CIE characterised by mandatory indication(s)

NOTE The functional conditions recognized in this European Standard are the following:

- fire alarm condition, when a fire alarm is indicated,
- fault warning condition, when a fault is indicated,
- disabled condition, when the disablement of functions is indicated,
- test condition, when the testing of functions is indicated,
- quiescent condition, when the CIE is powered by a power supply conforming to EN 54-4 and no other functional condition is indicated.

3.1.5
detection circuit
transmission path that connects points to the CIE

3.1.6
earth fault
unwanted connection between earth potential and any part of the CIE, transmission paths to the CIE, or transmission paths between parts of the CIE

3.1.7
field
sub-division of a window

3.1.8
indicator
device which can change its state to give information

3.1.9
Deleted (numbering kept)

3.1.10
Deleted (numbering kept)

3.1.11
non-volatile memory
memory elements that do not require the presence of an energy source for the retention of their contents

3.1.12
point
component connected to a detection circuit that is able to transmit or receive information in relation to fire detection

EXAMPLE Items A or D of Figure 1 of EN 54-1:1996

3.1.13
program
software necessary for a CIE to comply with at least the requirements of this European Standard, including initialising data, reset and interrupt vectors, operating code, and declarations

3.1.14
Deleted (numbering kept)

3.1.15
running data
alterable data subject to temporary modification during operation, either automatically or by manual controls

3.1.16
separate
physically separate, and exclusively provided for the purpose or purposes stated in this European Standard

3.1.17
silencing
switching off the audible signal of a sounding device that is capable of being re-sounded by a new event

3.1.18
site specific data
alterable data required for the CIE to operate in a defined system configuration

3.1.19
transmission path
physical connection, external to the cabinet of the CIE, for the transmission of information and/or power between the CIE and other components of a fire detection and fire alarm system (as defined in EN 54-1:1996), and/or between parts of a CIE contained in different cabinets

3.1.20
volatile memory
memory elements that require the presence of an energy source for the retention of their contents

3.1.21
window
area of the alphanumeric display used for information relating to one functional condition at a given time

NOTE A window may be realized either by mechanical separation or under software control.

3.1.22
zone
geographical sub-division of the protected premises in which one or more points are installed and for which a common zonal indication is provided

3.1.23
module
part of the program that fulfils specified functions

3.1.24
first alarm signal
signal from a fire detector which is interpreted as a fire alarm, but following which the CIE enters a first alarm state

3.1.25
first alarm state
state of the CIE following the receipt of a first alarm signal during which mandatory functions of the CIE may be inhibited

3.1.26
confirmation alarm signal
signal from a fire detector or manual call point which terminates a first alarm state

3.1.27
integrated PSE
PSE within other equipment where it is not possible for the manufacturer to specify the output voltage range(s) of the PSE and the input voltage range(s) of that equipment and where its repair involves replacement of a part or the whole of the other equipment

In 3.2 add at the end

PSE: power supply equipment.

5 General requirements for indications

Delete the last bullet point in 5.1.1 and substitute

— test condition (if provided).

Delete the last bullet point in 5.1.2 and substitute

— test condition (if provided).

7 The fire alarm condition

Delete 7.1.5 and substitute

7.1.5 The mandatory indications and outputs shall not be falsified by multiple fire signals received from the same or different detection circuits, resulting from the simultaneous operation of two points and/or the operation of further points.

Delete 7.3.2 c) and substitute

c) the total number of zones in alarm shall be displayed;

Delete 7.3.2 d) and substitute

d) zones in alarm, but not currently indicated, shall be capable of being displayed at access level 1. A single manual action shall be required for the display of each additional zone in alarm. Either individual fields, or the whole alarm window, may be temporarily suppressed to permit the display of additional zones in alarm. However, the display shall meet the requirements of 7.3.2 a), 7.3.2 b) and 7.3.2 c) within 30 s following the last interrogation.

Add in 7.4.1 after the last sentence

The silencing of the audible indication may be accompanied by changes in the visible indications of fire or fault, provided that the conditions are still indicated as required in this standard (e.g. the indication of light emitting indicators may change from flashing to steady, or the information given on an alphanumeric display may be updated).

Delete 7.4.3 and substitute

7.4.3 The audible indication shall re-sound for each new zone in alarm.

Delete 7.5 and substitute

7.5 Other indications during the fire alarm condition

7.5.1 If faults, disablements or tests are indicated by means of one or more light emitting indicators, and such indications are suppressed in the fire alarm condition, it shall be possible to reveal these by means of a manual operation at access level 1 or 2.

7.5.2 If the fire alarm indications are on an alphanumeric display, the following shall apply to the display of other information on the alphanumeric display:

a) information not related to the fire alarm condition shall be suppressed, unless the display has more than one window, one of which is exclusively reserved for fire alarm indications,

b) suppressed indications of faults, disablements and tests shall be capable of being displayed, at any time, by manual operations at access level 1 or 2, which are different from, or additional to that specified in 7.3.2 d) to display zones in fire alarm, and which are capable of displaying faults, disablements and tests independently,

c) either individual fields, or the whole fire alarm window, may be temporarily suppressed to permit the display of faults, disablements and tests. However, the display shall meet the requirements of 7.3.2 a), 7.3.2 b) and 7.3.2 c) within 30 s following the last interrogation.

Delete 7.6.1 and substitute

7.6.1 The CIE shall be capable of being reset from the fire alarm condition. This shall only be possible by means of a separate manual control, at access level 2. This control shall be used only for reset and may be the same as that used for reset from the fault warning condition.

Delete 7.7.2 and substitute

7.7.2 Unless 7.11 and/or 7.12 apply, the CIE shall activate all mandatory outputs within 3 s of the indication of a fire alarm condition.

Delete 7.7.3 and substitute

7.7.3 Unless 7.11 applies, the CIE shall activate all mandatory outputs within 10 s of the activation of any manual call point.

Delete 7.8 and substitute

7.8 Output to fire alarm devices (option with requirements – see also 8.2.5 a) and 9.4.2 a))

The CIE may have provision for the automatic transmission of fire alarm signals to fire alarm devices (item C of Figure 1 of EN 54-1:1996). In this case the following shall apply:

a) it shall be possible to silence the fire alarm devices at access level 2,

b) following silencing, it shall be possible to re-sound the fire alarm devices at access level 2,

c) the fire alarm devices shall not be silenced automatically,

d) it shall be possible to configure the CIE at access level 3 to automatically re-sound the fire alarm devices following an alarm in another zone.

Delete 7.9 and substitute

7.9 Control of fire alarm routing equipment (options with requirements)

7.9.1 Output to fire alarm routing equipment (option with requirements – see also 8.2.5 b) and 9.4.2 b))

The CIE may have provision for the automatic transmission of fire alarm signals to fire alarm routing equipment (item E of Figure 1 of EN 54-1:1996). In this case the transmission of the signal shall be indicated by means of a separate light emitting indicator and/or an alphanumeric display. The indication shall remain until the fire alarm condition is reset.

7.9.2 Alarm confirmation input from fire alarm routing equipment (option with requirements)

If 7.9.1 applies, the CIE may have an input which is capable of receiving signals from fire alarm routing equipment (item E of Figure 1 of EN 54-1:1996). In this case the reception of the signals shall be indicated by means of a separate light emitting indicator and/or an alphanumeric display. The light emitting indicator may replace the indicator of 7.9.1. The indication shall remain until the fire alarm condition is reset.

Delete 7.10 and substitute

7.10 Outputs to fire protection equipment (options with requirements)

7.10.1 Output type A (option with requirement – see also 8.2.4 f) and 9.4.1 b))

The CIE may have provision for the transmission of fire alarm signals to controls for automatic fire protection equipment (item G of Figure 1 of EN 54-1:1996).

7.10.2 Output type B (option with requirement – see also 8.2.4 f) and 9.4.1 b))

The CIE may have provision for the transmission of fire alarm signals to controls for automatic fire protection equipment (item G of Figure 1 of EN 54-1:1996). In this case the transmission of the signal shall be indicated by means of a separate light emitting indicator and/or an alphanumeric display. The indication shall be at least common to all items G, and shall not be suppressed during the fire alarm condition.

7.10.3 Output type C (option with requirement – see also 8.2.4 f) and 9.4.1 b))

The CIE may have provision for the transmission of fire alarm signals to controls for automatic fire protection equipment (item G of Figure 1 of EN 54-1:1996). In this case the reception of a confirmatory signal from G shall be indicated by means of a separate light emitting indicator and/or an alphanumeric display. The indication shall be at least common to all items G, and shall not be suppressed during the fire alarm condition.

7.10.4 Fault monitoring of fire protection equipment (option with requirement – see also 8.2.4 f))

The CIE may have provision to receive fault warning signals from controls for automatic fire protection equipment (item G of Figure 1 of EN 54-1:1996). These faults shall be indicated by means of a separate light emitting indicator and/or an alphanumeric display. The indication shall be at least common to all items G, and shall not be suppressed during the fire alarm condition. The indicator may be the same as that of 8.2.4 f).

Delete 7.11 and substitute

7.11 Delays to outputs (option with requirements; see also Annex E)

7.11.1 The CIE may have provision to delay the activation of outputs to fire alarm devices (item C of Figure 1 of EN 54-1:1996) and/or to fire alarm routing equipment (item E of Figure 1 of EN 54-1:1996) and/or to

controls for automatic fire protection equipment (item G of Figure 1 of EN 54-1:1996). In these cases at least the following shall apply:

a) the operation of delays to outputs to C and G shall be configurable at access level 3 to apply to:

- fire detectors, and/or,
- manual call points, and/or,
- individual zones;

b) the operation of delays to outputs to E shall be configurable at access level 3, to apply to:

- fire detectors, and/or,
- individual zones;

c) the delay times shall be configurable at access level 3, in increments not exceeding 1 min, up to a maximum of 10 min;

d) it shall be possible to override the delays and immediately activate delayed outputs by means of a manual operation at access level 1 and/or by means of a signal from a manual call point;

e) the delay to one output signal shall not affect the activation of other outputs.

7.11.2 If 7.11.1 applies, the CIE may have provision to switch on and switch off the delayed operation of outputs. In this case the following shall apply:

a) it shall be possible to switch on and switch off delays, by means of a manual operation at access level 2,

b) there may be provision to automatically switch on and/or switch off delays by means of a programmable timer, which shall be configurable at access level 3,

c) the mode of operation when delays are switched on shall be visibly indicated by means of a separate light emitting indicator and/or an alphanumeric display. The indication shall not be suppressed during the fire alarm condition.

Delete 7.12 and substitute

7.12 Dependencies on more than one alarm signal (options with requirement)

7.12.1 Type A dependency (option with requirement)

Following the receipt of a first alarm signal from a fire detector, the entry to the fire alarm condition may be inhibited until the receipt of a confirmation alarm signal from the same fire detector, or from a fire detector in the same zone. In this case, the first alarm state need not be indicated, and the following shall apply:

a) the mode of operation shall be configurable at access level 3 for individual zones;

b) reception of a confirmation alarm signal shall not be inhibited for more than 60 s following the receipt of the first alarm signal. The manufacturer may specify a time shorter than 60 s. In this case, this specification shall be tested and verified;

c) the first alarm state shall be automatically cancelled within 30 min of the receipt of the first alarm signal;

d) information on the values of the configured delay times shall be accessible at access level 2 or 3.