EESTI STANDARD EVS-EN 54-5:2001

Automaatne tulekahjusignalisatsioonisüsteem. Osa 5: Soojusdetektorid. Punktdetektorid

Fire detection and fire alarm systems - Part 5: Heat detectors - Point detectors

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 54-5:2001 sisaldab Euroopa standardi EN 54-5:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 18.05.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 54-5:2001 consists of the English text of the European standard EN 54-5:2000. This document is endorsed on 18.05.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard specifies the requirements, test methods and performance criteria for point heat detectors for use in fire detection and fire alarm systems for buildings (see EN 54-1:1996). For other types of heat detector, or for detectors intended for use in other environments, this standard should only be used for guidance. Heat detectors with special characteristics and developed for specific risks are not covered by this standard.	**Scope:** This standard specifies the requirements, test methods and performance criteria for point heat detectors for use in fire detection and fire alarm systems for buildings (see EN 54-1:1996). For other types of heat detector, or for detectors intended for use in other environments, this standard should only be used for guidance. Heat detectors with special characteristics and developed for specific risks are not covered by this standard.

ICS 13.220.20

Võtmesõnad: fire, fire equipment, fire fighting, hazards, lay, marking, punctual, reaction time, sensitivity, shock, shocks, specification (approval), specifications, temperature, testing, warning devices, warning systems, vibration

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 54-5

December 2000

ICS 13.220.20

Supersedes EN 54-5 : 1976,
EN 54-5 : 1976/A1 : 1988,
EN 54-6 : 1982, EN 54-8 : 1982.

English version

Fire detection and fire alarm systems

Part 5: Heat detectors – Point detectors

Systèmes de détection et d'alarme incendie – Partie 5: Détecteurs de chaleur – Détecteurs ponctuels

Brandmeldeanlagen – Teil 5: Wärmemelder – Punktförmige Melder

This European Standard was approved by CEN on 2000-06-02.

CEN 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 Central Secretariat or to any CEN member.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Ref. No. EN 54-5 : 2000 E

Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 72 "Fire detection and fire alarm systems", the secretariat of which is held by BSI.

This European Standard replaces EN 54-5:1976, EN 54-5:1976/A1:1988, EN 54-6:1982, EN 54-8:1982.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2001, and conflicting national standards shall be withdrawn at the latest by June 2003. For products which have complied with the relevant national standard before the date of withdrawal (dow), as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until June 2006.

This European Standard 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).

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

This standard has been prepared in cooperation with the CEA (Comité Européen des Assurances) and with EURALARM (Association of European Manufacturers of Fire and Intruder Alarm Systems).

The significant differences from EN 54-5:1976+A1:1988 include:

— changes in the title of the EN 54 series and in the title of this Part;

— the integration of the requirements for high temperature heat detectors, previously covered in EN 54-8:1982 and the partial integration of the requirements for rate of rise heat sensitive detectors without a static element, previously covered by EN 54-6:1982, into this Part;

— a new classification system, combining the systems of EN 54-5:1976 and EN 54-8:1982, together with the introduction of optional suffices giving additional information on response characteristics (N.B. this allows detectors with certain rate-of-rise characteristics to be identified, such detectors were previously covered by EN 54-6 :1982);

— changes to the lower limits of response times at high rates of rise of temperature;

— changes in the environmental test procedures to use IEC tests where possible, to harmonise with test procedures applied to other types of detectors and to include EMC immunity tests;

— the requirement for an integral alarm indication.

EN 54-5:1976, EN 54-6:1982, EN 54-8:1982 and their amendments will all be withdrawn on publication of this revision.

Information on the relationship between this European Standard and other standards of the EN 54 series is given in annex A of EN 54-1:1996.

1 Scope

This European Standard specifies the requirements, test methods and performance criteria for point heat detectors for use in fire detection and fire alarm systems for buildings (see EN 54-1:1996).

For other types of heat detector, or for detectors intended for use in other environments, this standard should only be used for guidance. Heat detectors with special characteristics and developed for specific risks are not covered by this standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO/IEC Publication	Year	Title	EN/HD	Year
-	-	Fire detection and fire alarm systems - Part 1: Introduction.	EN 54-1	1996
-	-	Alarm Systems - Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems + A1:1998.	EN 50130-4	1995
IEC 60068-1	1988	Environmental testing - Part 1: General and guidance, + A1:1992.	EN 60068-1	1994
IEC 60068-2-1	1990	Environmental testing - Part 2: Tests - Tests A: Cold, + A1:1993, A2:1994.	EN 60068-2-1	1993
IEC 60068-2-2	1974	Basic Environmental testing procedures - Part 2: Tests - Tests B: Dry heat, + Supp. A:1976, A1:1993, A2:1994.	EN 60068-2-2	1993
IEC 60068-2-3	1969	Basic Environmental testing procedures - Part 2: Tests - Test Ca: Damp heat, steady state, + A1:1984.	HD 323.2.3 S2	1987
IEC 60068-2-6	1995	Environmental testing – Part 2: Tests - Test Fc: Vibration, sinusoidal, + Corr.:1995	EN 60068-2-6	1995
IEC 60068-2-27	1987	Basic Environmental testing procedures - Part 2: Tests - Test Ea & Guidance: Shock.	EN 60068-2-27	1993

IEC 60068-2-30	1980	Basic Environmental testing procedures - Part 2: Tests - Test Db & Guidance: Damp heat, cyclic (12 + 12 hour cycle), + A1:1985.	HD 323.2.30 S3	1988
IEC 60068-2-42	1982	Basic Environmental testing procedures - Part 2: Tests - Test Kc: Sulphur dioxide test for contacts and connections.	-	-
IEC 60068-2-56	1988	Environmental testing – Part 2: Tests - Test Cb: Damp heat, steady state, primarily for equipment.	HD 323.2.56 S1	1990
ISO 209-1	1989	Wrought aluminium and aluminium alloys - Chemical composition and forms of products - Part 1: Chemical composition.	-	-

3 Terms and definitions

For the purposes of this standard, the following terms and definitions and those given in EN 54-1:1996 apply:

3.1
typical application temperature
the temperature that an installed detector can be expected to experience for long periods of time in the absence of a fire condition

NOTE This temperature is deemed to be 29 °C below the minimum static response temperature, according to the class marked on the detector, as specified in Table 1.

3.2
maximum application temperature
the maximum temperature that an installed detector can be expected to experience, even for short periods of time, in the absence of a fire condition

NOTE This temperature is deemed to be 4 °C below the minimum static response temperature, according to the class marked on the detector, as specified in Table 1.

3.3
static response temperature
the temperature at which the detector would produce an alarm signal if subjected to a vanishingly small rate of rise of temperature.

NOTE Rates of rise of temperature of approximately 0,2 K min^{-1} are normally found to be suitable for measuring this, however lower rates can be required in some instances (see 5.3).