

STN	Elektrická požiarňa signalizácia Časť 22: Resetovateľné tepelné hlásiče líniového typu	STN EN 54-22+A1 92 0404
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Fire detection and fire alarm systems - Part 22: Resettable line-type heat detectors

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/20

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English Version

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

Systèmes de détection et d'alarme incendie - Partie 22 :
Détecteurs de chaleur de type linéaire réenclenchables

Brandmeldeanlagen - Teil 22: Rücksetzbare
linienförmige Wärmemelder

This European Standard was approved by CEN on 19 March 2015 and includes Amendment 1 approved by CEN on 16 October 2019.

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 CEN-CENELEC Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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Contents	Page
European foreword.....	4
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms, definitions and abbreviations	8
3.1 Terms and definitions	8
3.2 Abbreviations	9
4 Product characteristics	9
4.1 General	9
4.2 Nominal activation conditions/sensitivity	11
4.3 Operational reliability	11
4.4 Tolerance to supply voltage	13
4.5 Performance parameters under fire conditions	14
4.6 Durability of nominal activation conditions/sensitivity	14
5 Testing, assessments and sampling methods	16
5.1 General	16
5.2 Test procedures nominal activation conditions/sensitivity	20
5.3 Test procedures operational reliability	21
5.4 Tolerance to supply voltage	22
5.5 Performance parameters under fire conditions	23
5.6 Durability of nominal activation conditions/sensitivity	27
6 Assessment and verification of constancy of performance (AVCP)	48
6.1 General	48
6.2 Type testing	48
6.3 Factory production control (FPC)	50
7 Classification	55
8 Marking, labelling and packaging	55
8.1 General	55
8.2 Marking of sensor control unit	55
8.3 Marking of sensing element	56
8.4 Marking of functional units	56
Annex A (normative) Arrangement of the sensing element in the fire test room	57
A.1 General	57
A.2 Fire test room arrangement	57
A.3 Sensing element outside the fire test room	57
Annex B (normative) Flaming liquid test fires (TF6F, TF6 and TF6S)	59
B.1 General	59
B.2 Arrangement	59
B.3 Ignition	59

B.4	End of test condition.....	59
B.5	Test validity criteria	60
Annex C	(normative) Test arrangement for the sensing element of linear heat detector in the heat tunnel.....	61
C.1	General	61
C.2	Test arrangement for the sensing element.....	61
Annex D	(informative) Apparatus for mounting of the sensing element of linear heat detector in the heat tunnel.....	62
D.1	General	62
D.2	Test apparatus.....	62
Annex E	(normative) Mounting of the sensing element of multipoint RLTHD in the heat tunnel.....	63
E.1	General	63
E.2	Mounting arrangement of multipoint sensing element.....	63
Annex F	(normative) Heat tunnel for response time and response temperature measurements	65
F.1	General	65
F.2	Description of the heat tunnel	65
Annex G	(informative) Construction of the heat tunnel.....	66
G.1	General	66
G.2	Heat tunnel construction	66
Annex H	(normative) Test arrangement for vibration tests for sensing element	68
H.1	General	68
H.2	Test setup	68
Annex I	(normative) Test apparatus for impact test on the sensing element	69
I.1	General	69
I.2	Test apparatus.....	69
I.3	Test setup	69
Annex J	(informative) Data supplied with resettable line-type heat detectors	72
Bibliography		74

EN 54-22:2015+A1:2020 (E)**European foreword**

This document (EN 54-22:2015+A1:2020) 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes A1 EN 54-22:2015 A1.

This document includes Amendment 1, approved by CEN on 2019-10-16.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

A1 *deleted text* A1

EN 54 "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 detector using an optical light beam

Part 13: Compatibility assessment of system components

Part 14: Guidelines for planning, design, installation, commissioning, use and maintenance

Part 15: Point detectors using a combination of detected phenomena

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 routine equipment

Part 22: Resettable line-type heat detectors

Part 23: Fire alarm devices – Visual alarms

Part 24: Components of voice alarm systems – Loudspeakers

Part 25: Components using radio links and system requirements

Part 26: Carbon monoxide detectors – Point detectors (in preparation)

Part 27: Duct smoke detectors (in preparation)

Part 28: Non-resettable line-type heat detectors (in preparation)

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 detector – Point detectors using a combination of smoke, carbon monoxide and optionally heat sensors

Part 32: Guidelines for the planning, design, installation, commissioning, use and maintenance of voice alarm systems

NOTE This list includes standards that are in preparation and other standards may be added. For current status of published standards refer to www.cen.eu.

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

Introduction

Resettable line-type heat detectors (RLTHD) have been incorporated into fire alarm systems for a considerable number of years. These detectors are typically used in areas where point type heat detectors are presented with challenging environmental characteristics and also where access to the detectors may significantly influence the fire alarm system design.

This standard defines the minimum system functionality for RLTHD products. RLTHD are based upon many unique operating principles. It is the intention of this standard to define common operating characteristics for each type of RLTHD in conjunction with existing EN 54 detector standards, so that resettable line-type heat detectors have a response behaviour comparable to that of point type heat detectors.

Due to the various applications for RLTHD, it is necessary to devise separate environmental classification tests for the sensing element and the sensor control units of these systems. It is not the purpose of this standard to define applications or how RLTHD should be used in applications. However, the standard indicates two general fields of application, room protection and secondly local protection. The standard defines separate response test classifications for these two fields.

Generally there are two functional principles employed by RLTHD: non-integrating and integrating systems. Therefore separated subclasses have been created for non integrating systems and for integrating systems.

1 Scope

This European Standard applies to resettable line-type heat detectors consisting of a sensing element using an optical fibre, a pneumatic tube or an electrical sensor cable connected to a sensor control unit, either directly or through an interface module, intended for use in fire detection and fire alarm systems installed in and around buildings and other civil engineering works (see EN 54-1:2011).

This European Standard specifies the requirements and performance criteria, the corresponding test methods and provides for the Assessment and Verification of Constancy of Performance (AVCP) of resettable line-type heat detectors to this EN.

This European Standard also covers resettable line-type heat detectors intended for use in the local protection of plant and equipment.

Resettable line-type heat detectors with special characteristics and developed for specific risks are not covered by this EN.

This European Standard does not cover line-type heat detectors that are based on non-resettable, fixed temperature electrical cables (so called “digital” systems).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 54-1:2011, *Fire detection and fire alarm systems — Part 1: Introduction*

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

EN 50130-4:2011, *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 60068-1:1994, *Environmental testing — Part 1: General and guidance (IEC 60068-1:1988 + Corrigendum 1988 +A1:1992)*

EN 60068-2-1:2007, *Environmental testing — Part 2-1: Tests — Test A: Cold (IEC 60068-2-1:2007)*

EN 60068-2-2:2007, *Environmental testing — Part 2-2: Tests — Test B: Dry heat (IEC 60068-2-2:2007)*

EN 60068-2-27:2009, *Environmental testing — Part 2-27: Tests — Test Ea and guidance: Shock (IEC 60068-2-27:2009)*

EN 60068-2-30:2005, *Environmental testing — Part 2-30: Tests — Test Db: Damp heat, cyclic (12 h + 12 h cycle) (IEC 60068-2-30:2005)*

EN 60068-2-42:2003, *Environmental testing — Part 2-42: Tests — Test Kc: Sulphur dioxide test for contacts and connections (IEC 60068-2-42:2003)*

EN 60068-2-6:2008, *Environmental testing — Part 2-6: Tests — Test Fc: Vibration (sinusoidal) (IEC 60068-2-6:2008)*

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

EN 54-22:2015+A1:2020 (E)

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

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