ICS 13.220.20 SLOVENSKÁ TECHNICKÁ NORMA November 2015

STN	**Elektrická požiarna signalizácia. Časť 29: Požiarne hlásiče s viacerými snímačmi. Požiarne hlásiče využívajúce kombináciu snímačov dymu a tepla.**	**STN EN 54-29** 92 0404

Fire detection and fire alarm systems - Part 29: Multi-sensor fire detectors - Point detectors using a combination of smoke and heat sensors

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. 10/15

Obsahuje: EN 54-29:2015

121672

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 54-29

April 2015

ICS 13.220.20

English Version

Fire detection and fire alarm systems - Part 29: Multi-sensor fire detectors - Point detectors using a combination of smoke and heat sensors

Systèmes de détection et d'alarme incendie - Partie 29 : Détecteurs d'incendie multi-capteurs - Détecteurs ponctuels utilisant une combinaison de capteurs de fumée et de chaleur

Brandmeldeanlagen - Teil 29: Mehrfachsensor-Brandmelder - Punktförmige Melder mit kombinierten Rauch- und Wärmesensoren

This European Standard was approved by CEN on 15 February 2015.

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Ref. No. EN 54-29:2015 E

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Foreword

This document (EN 54-29:2015) 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of an identical text or by endorsement, at the latest by October 2015, and conflicting national standards shall be withdrawn at the latest by January 2017.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports the basic requirements of Regulation (EU) 305/2011.

For relationship with EU Regulations, see informative Annex ZA which is an integral part of this document.

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 detector – 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: Technical Specification: Guidelines for planning, design, installation, commissioning, use and maintenance*

— *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 alarms*

— *Part 24: Components of voice alarm systems – Loudspeakers*

— *Part 25: Components using radio links and system requirements*

— *Part 26: Point fire detectors using carbon monoxide sensors*

— *Part 27: Duct smoke detectors*

— *Part 28: Non-resettable (digital) line type heat detectors*

— *Part 29: Point detectors using a combination of smoke and heat sensors*

— *Part 30: Point detectors using a combination of carbon monoxide and heat sensors*

— *Part 31: 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 http://www.cen.eu/Pages/default.aspx.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Multi-sensor fire detectors combining smoke and heat sensors complying with this document are general purpose fire detectors. Multi-sensor fire detectors can be used to achieve

— a high stability against deceptive phenomena,

— a response to a broad range of fires.

Compared to the standards for single phenomenon detectors, additional environmental tests were included to demonstrate a higher stability.

The response to a broad range of fires is shown by including the test fires TF1 and TF8 in addition to the test fires TF2 to TF5 which are used for detectors complying with EN 54-7.

The performance of single sensor components of a multi-sensor fire detector need not comply with the standards for single phenomena fire detectors (EN 54-5, EN 54-7) however the combined performance does need to meet the requirements of this standard.

1 Scope

This European Standard specifies requirements, test methods and performance criteria for point-type multi-sensor fire detectors for use in fire detection systems installed in buildings (see EN 54-1:2011), incorporating in one mechanical enclosure at least one optical or ionization smoke sensor and at least one heat sensor. The overall fire detection performance is determined utilizing the combination of the detected phenomena.

This European Standard provides for the assessment and verification of constancy of performance (AVCP) of point detectors using a combination of smoke and heat sensors to this European Standard.

Point detectors using a combination of smoke and heat sensors having special characteristics suitable for the detection of specific fire risks are not covered by this European Standard. The performance requirements for any additional functions are beyond the scope of this European Standard (e.g. additional features or enhanced functionality for which this European Standard does not define a test or assessment method).

NOTE Certain types of detector contain radioactive materials. The national requirements for radiation protection differ from country to country and they are not specified in this European Standard.

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 54-5:2000, *Fire detection and fire alarm systems - Part 5: Heat detectors - Point detectors*

EN 54-5:2000/A1:2002, *Fire detection and fire alarm systems - Part 5: Heat detectors - Point detectors*

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)*

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

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

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 60068-2-78:2013, *Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state (IEC 60068-2-78:2012)*

ISO 209:2007, *Aluminium and aluminium alloys — Chemical composition*