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Brand och räddning – Branddetekterings- och brandlarmsystem – Del 20: Aspirerande rökdetektorer

Fire detection and fire alarm systems – Part 20: Aspirating smoke detectors

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English Version

Fire detection and fire alarm systems - Part 20: Aspirating smoke detectors

Systèmes de détection et d'alarme incendie - Partie 20 :
DéTECTEURS de fumée par aspiration

Brandmeldeanlagen - Teil 20: Ansaugrauchmelder

This European Standard was approved by CEN on 18 May 2006.

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Contents

Page

Foreword	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Symbols and abbreviations	7
5 Requirements	8
5.1 Compliance	8
5.2 Individual visual alarm indication	8
5.3 Connection of ancillary devices	8
5.4 Manufacturer's adjustments	8
5.5 On site adjustment of response behaviour	8
5.6 Response to slowly developing fires	9
5.7 Mechanical strength of the pipework	9
5.8 Hardware components and additional sensing elements in the sampling device	10
5.9 Airflow monitoring	10
5.10 Power supply	11
5.11 Data	11
5.12 Additional requirements for software controlled detectors	12
6 Tests	13
6.1 General	13
6.2 Repeatability	16
6.3 Reproducibility	17
6.4 Variation in supply parameters	17
6.5 Dry heat (operational)	18
6.6 Cold (operational)	19
6.7 Damp heat, steady state (operational)	20
6.8 Damp heat, steady state (endurance)	21
6.9 Sulfur dioxide (SO ₂) corrosion (endurance)	22
6.10 Shock (operational)	23
6.11 Impact (operational)	24
6.12 Vibration, sinusoidal (operational)	25
6.13 Vibration, sinusoidal (endurance)	26
6.14 Electromagnetic compatibility (EMC) immunity tests	27
6.15 Fire sensitivity	28
7 Classification and designation	31
8 Marking	32
Annex A (informative) Apparatus for Response Threshold Value (RTV) measurements	33
Annex B (normative) Smouldering (pyrolysis) wood fire (TF2)	41
B.1 Fuel	41
B.2 Hotplate	41
B.3 Arrangement	41
B.4 Heating rate	42
B.5 End of test condition	42
B.6 Test validity criteria	42
Annex C (normative) Reduced smouldering pyrolysis wood fires (TF2A and TF2B)	44
C.1 Fuel	44

C.2	Hotplate.....	44
C.3	Arrangement.....	44
C.4	Heating rate	45
C.5	End of test condition	45
C.6	Test validity criteria	45
Annex D	(normative) Glowing smouldering cotton fire (TF3)	47
D.1	Fuel.....	47
D.2	Arrangement.....	47
D.3	Ignition	48
D.4	End of test condition	48
D.5	Test validity criteria	48
Annex E	(normative) Reduced glowing smouldering cotton fire (TF3A and TF3B).....	50
E.1	Fuel.....	50
E.2	Arrangement.....	50
E.3	Ignition	51
E.4	End of test condition	51
E.5	Test validity criteria	52
Annex F	(normative) Flaming plastics (polyurethane) fire (TF4)	53
F.1	Fuel.....	53
F.2	Arrangement.....	53
F.3	Ignition	53
F.4	End of test condition	53
F.5	Test validity criteria	53
Annex G	(normative) Flaming liquid (n-heptane) fire (TF5).....	55
G.1	Fuel.....	55
G.2	Arrangement.....	55
G.3	Ignition	55
G.4	End of test condition	55
G.5	Test validity criteria	55
Annex H	(normative) Reduced flaming liquid (n-heptane) fire (TF5A and TF5B).....	57
H.1	Fuel.....	57
H.2	Arrangement.....	57
H.3	Ignition	57
H.4	End of test condition	58
H.5	Test validity criteria	58
Annex I	(normative) Fire test room and ventilation system	60
I.1	Fire test room	60
I.2	Ventilation system	62
Annex J	(informative) Information concerning the requirements for the response to slowly developing fires.....	64
Annex K	(informative) Apparatus for air flow monitoring test.....	68
K.1	General.....	68
K.2	Airflow measuring with worst-case sampling device	68
K.3	Airflow monitoring test with test pipe network.....	69
Annex ZA	(informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive	71
ZA.1	Scope and relevant clauses	71
ZA.2	Procedures for the attestation of conformity of aspirating smoke detectors covered by this standard	72
ZA.3	CE Marking and labelling and accompanying documentation	77
ZA.4	EC certificate and declaration of conformity	78
Bibliography		80

Foreword

This document (EN 54-20:2006) has been prepared by Technical Committee CEN/TC 72 “Fire detection and fire alarm systems”, the secretariat of which is held by BSI.

This 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 December 2006, and conflicting national standards shall be withdrawn at the latest by June 2009.

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.

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 detectors 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 fire 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 routing equipment

Part 22: 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

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.

1 Scope

This European Standard specifies the requirements, test methods and performance criteria for aspirating smoke detectors for use in fire detection and fire alarm systems installed in buildings.

Aspirating smoke detectors developed for the protection of specific risks that incorporate special characteristics (including additional features or enhanced functionality for which this standard does not define a test or assessment method) are not covered by this standard. The performance requirements for any special characteristics are beyond the scope of this standard.

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

2 Normative references

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 54-2, *Fire detection and fire alarm systems – Part 2: Control and indicating equipment*

EN 54-4, *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, *Environmental testing - Part 1: General and guidance (IEC 60068-1:1988 + Corrigendum 1988 + A1:1992)*

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

EN 60068-2-2, *Basic environmental testing procedures; part 2: tests; tests B: dry heat (IEC 60068-2-2:1974 + IEC 60068-2-2A:1976)*

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

EN 60068-2-27, *Basic environmental testing procedures – Part 2: Tests – Test Ea and guidance: Shock (IEC 60068-2-27:1987)*

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

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

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

EN 61386-1:2004, *Conduit systems for electrical installations - Part 1: General requirements (IEC 61386-1:1996 + A1:2000)*