ISO 7240-3:2020-03 (E)

Fire detection and alarm systems - Part 3: Audible alarm devices

Contents

Page

Foreword vi

Introduction vii

1 Scope 1

2 Normative references 1

3 Terms,definitionsandabbreviatedterms 2
3.1 Terms and definitions 2
3.2 Abbreviated terms 3

4 Requirements 3
4.1 Compliance 3
4.2 Sound pressure level 3
4.3 Frequency and sound pattern 3
4.4 Audible alarm devices (AADs) with voice 4
4.5 Synchronization -- Optional function 4
4.6 Construction 4
4.6.1 Provision for external conductors 4
4.6.2 Materials 5
4.6.3 Ingress protection 5
4.6.4 Access 5
4.7 On-site adjustment of the mode of operation 5
4.8 Durability 5

5 Tests 6
5.1 General 6
5.1.1 Atmospheric conditions for tests 6
5.1.2 Operating conditions for tests 6
5.1.3 Mounting arrangements 6
5.1.4 Tolerances 6
5.1.5 Provision for tests 7
5.1.6 Test schedule 7
5.1.7 Test report 8
5.2 Reproducibility 8
5.2.1 Object of the test 8
5.2.2 Test procedure 8
5.2.3 Requirements 8
5.3 Operational performance 9
5.3.1 Object of the test 9
5.3.2 Test procedure 9
5.3.3 Requirements 9
5.4 Durability 9
5.4.1 Object of the test 9
5.4.2 Test procedure 9
5.4.3 Requirements 9
5.5 Dry heat (operational) 9
5.5.1 Object of the test 9
5.5.2 Test procedure and apparatus 10
5.5.3 Requirements 10
5.6 Dry heat (endurance) 10

5.6.1 Object of the test 10
5.6.2 Test procedure 11
5.6.3 Requirements 11
5.7 Cold (operational) 11
5.7.1 Object of the test 11
5.7.2 Test procedure 11
5.7.3 Requirements 12
5.8 Damp heat, cyclic (operational) 12
5.8.1 Object of the test 12
5.8.2 Test procedure 12
5.8.3 Requirements 13
5.9 Damp heat, steady state (endurance) 13
5.9.1 Object of the test 13
5.9.2 Test procedure 13
5.9.3 Requirements 14
5.10 Damp heat, cyclic (endurance) 14
5.10.1 Object of the test 14
5.10.2 Test procedure 14
5.10.3 Requirements 14
5.11 Sulphur dioxide (SO2) corrosion (endurance) 14
5.11.1 Object of the test 14
5.11.2 Test procedure 14
5.11.3 Requirements 15
5.12 Shock (operational) 15
5.12.1 Object of the test 15
5.12.2 Test procedure 15
5.12.3 Requirements 16
5.13 Impact (operational) 16
5.13.1 Object of the test 16
5.13.2 Test procedure 16
5.13.3 Requirements 17
5.14 Vibration, sinusoidal (operational) 17
5.14.1 Object of the test 17
5.14.2 Test procedure 17
5.14.3 Requirements 17
5.15 Vibration, sinusoidal (endurance) 18
5.15.1 Object of the test 18
5.15.2 Test procedure 18
5.15.3 Requirements 18
5.16 Electromagnetic compatibility (EMC), immunity (operational) 19
5.16.1 Object of the tests 19
5.16.2 Test procedures 19
5.16.3 Requirements 19
5.17 Enclosure protection 20
5.17.1 Object of the test 20
5.17.2 Test procedures 20
5.17.3 Requirements 21
5.18 Operational performance for AADs with voice 21
5.18.1 Object of the test 21
5.18.2 Test procedure 21
5.18.3 Requirements 21
5.19 Sequence timing for AADs with voice 21
5.19.1 Object of the test 21
5.19.2 Test procedure 21
5.19.3 Measurements during conditioning 22
5.19.4 Requirements 22
5.20 Synchronization (optional) 22
5.20.1 Object of the test 22
5.20.2 Test procedure 22
5.20.3 Measurements during conditioning 23
5.20.4 Test requirements 23

6 Test report 23
7 Marking 24
8 Data 24
Annex A (normative) Sound pressure level test for AAD 27
Annex B (normative) Comparative sound pressure level test during environmental conditioning 31
Annex C (informative)Comparisonofflammabilitytestrequirementsinvariousstandards 36
Bibliography 38