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PREDSTANDARD**

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Sistemi za odkrivanje in javljanje požara ter alarmiranje - 3. del: Naprave za alarmiranje - Zvočne naprave

Fire detection and fire alarm systems - Part 3: Fire alarm devices - Sounders

ICS 13.220.20; 13.320

Referenčna številka
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ICS

English version

Fire detection and fire alarm systems - Part 3: Fire alarm devices - Sounders

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 72.

This draft amendment A2, if approved, will modify the European Standard EN 54-3:2001. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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Foreword

This document (EN 54-3:2001/prA2:2004) has been prepared by Technical Committee CEN/TC 72 "Fire detection and fire alarm systems", the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

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).

Annex C is normative.

Add a new 3rd paragraph:

This standard is intended to cover voice sounders by the application of an additional range of tests detailed in annex C.

Make the existing 3rd paragraph the 4th paragraph.

ADD AN ADDITIONAL ANNEX C:

Annex C (normative)

Audible fire alarm devices - Voice sounders

C.1 Voice sounder

A voice sounder is an audible fire alarm device that contains all the necessary components to generate and broadcast recorded voice messages.

C.2 General requirements

The voice sounder shall meet all of the requirements applicable to audible fire alarm devices – sounders, contained in section 4 of EN 54-3.

C.3 Additional requirements

C.3.1 Tone and message broadcast sequences

C.4.1.1 The voice sounder shall be capable of producing an audible attention-drawing signal (tone) and an intelligible broadcast message or messages.

NOTE A voice sounder will normally provide a range of messages. The testing for compliance with this Annex should use a typical message agreed between the manufacturer and the testing authority.

C.4.1.2 For messages that require immediate action, the tone and message sequence broadcast by the device shall be within the parameters given in Table C.1. For other messages, it is permitted to extend the silence period after the Broadcast message and the period within which the message shall be repeated.

Table C.1 — Tone and message sequence

Attention-drawing signal - lasting 4 to 10 sec
followed by:
Brief silence - lasting 1 to 2 sec
followed by:
Broadcast Message
followed by:
Silence - lasting 2 to 5 sec
NOTE 1 The time between the start of each repeated message shall not exceed 30 sec.
NOTE 2 The periods of silence may need to be longer than indicated in certain circumstances, for example in spaces with long reverberation times, but should not be such that the time between the start of each repeated message exceeds 30 sec.

C.3.2 Synchronisation (option with requirements)

The voice sounder may have provision for synchronising the tone and message sequence with other devices of the same type in order to maintain intelligibility when devices are installed in close proximity so that they interact acoustically. In this case, the requirements of the test described in C.6.3 shall be met

NOTE This synchronisation can be achieved by internal circuitry, the addition of a trigger wire connected between devices or by other means as defined by the manufacturer.

C.3.3 Marking and data

In addition to the data required by clause 4.6.2 of EN 54-3, the following shall be provided:

- a) full instructions on the method of message recording and loading;
- b) information concerning the method of synchronisation, or, if synchronisation is not an option, a statement that the devices may only be installed in positions where they do not interact acoustically with other devices of the same type.

C.4 General testing

C.4.1 Test schedule

The voice sounder shall be subjected to the schedule of tests given in 5.1.6 of EN 54-3.

C.4.2 Operational performance

Only the attention-drawing signal (tone) shall be fully measured when the device is tested for operational performance to 5.3 of EN 54-3.

C.5 Additional testing for voice sounders

C.5.1 Broadcast message performance

C.5.1.1 Object of the test

To measure the output level of the broadcast message in relation to the output level of the attention drawing-signal (tone).

C.5.1.2 Test procedure

While the attention-drawing signal (tone) of the device is being tested for operational performance to 5.3 of EN 54-3 an additional measurement shall be taken to measure the output level of the broadcast message.

With the sound level meter at an angle of 90° (in line) with the device under test (see Figures A.2 and A.3 of EN 54-3), measure the output levels of both the attention drawing-signal and the broadcast message.

C.5.1.3 Test requirements

The voice sounder shall be deemed to comply if the output level of the broadcast message is not more than 6dB below the output level of the attention-drawing signal.

NOTE The difference in the output levels of the measurement of the broadcast message and the attention-drawing signal will vary depending on the frequency of the attention-drawing signal.

C.5.2 Tone and message sequence testing

C.5.2.1 Object of the test

To measure the duration of the attention-drawing signal (tone), the duration of the silence period between the end of the tone and the start of the broadcast message, the duration of the silence period between the end of the message and the start of the next tone and the total duration of the complete tone, silence, message sequence.

C.5.2.2 Test procedure

- a) The specimen shall be connected to a suitable power supply which shall be set in turn to the maximum and minimum supply parameters set by the manufacturer (see 4.6.2a of EN 54-3).
- b) The duration of the tone, the two silence periods and the complete tone/silence/message sequence shall in turn be measured 6 times using a stopwatch.

C.5.2.3 Test requirements

The voice sounder shall be deemed to comply if the measurements of C.6.2.2 are within the limits specified in C.4.1.2.