BRITISH STANDARD

BS EN
50136-2-4:1998

Alarm systems — Alarm transmission systems and equipment —

Part 2-4: Requirements for equipment used in systems with voice communicators using the public switched telephone network

The European Standard EN 50136-2-4:1998 has the status of a British Standard

ICS 13.320; 33.040.20

National foreword

This British Standard is the English language version of EN 50136-2-4:1998.

The UK participation in its preparation was entrusted by Technical Committee GW/1, Electronic security systems, to Subcommittee GW/1/11, Remote centres, which has the responsibility to:

— aid enquirers to understand the text;

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 4, an inside back cover and a back cover.

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Alarm systems — Alarm transmission systems and equipment — Part 2-4: Requirements for equipment used in systems with voice communicators using the public switched telephone network

Systèmes d'alarme — systèmes et équipements de transmission d'alarme —
Partie 2-4: Exigences pour les équipements utilisés dans des systèmes de transmetteurs vocaux sur le réseau téléphonique public auto-commuté

Alarmanlagen — Alarmübertragungsanlagen und -einrichtungen —
Teil 2-4: Anforderungen an Einrichtungen für Wähl- und Ansageanlagen für das öffentliche Fernsprechwählnetz

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This European Standard was prepared by Technical Committee CENELEC TC 79, Alarm systems.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50136-2-4 on 1997-07-01.

The following dates were fixed:

— latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	1998-08-01
— latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2002-08-01

EN 50136 consists of the following parts, under the general title *Alarm systems — Alarm transmission systems and equipment:*

— *Part 1-1: General requirements for alarm transmission systems*;

— *Part 1-2: Requirements for systems using dedicated alarm paths*;

— *Part 1-3: Requirements for systems with digital communicators using the public switched telephone network*;

— *Part 1-4: Requirements for systems with voice communicators using the public switched telephone network*;

— *Part 2-1: General requirements for alarm transmission equipment;*

— *Part 2-2: Requirements for equipment used in systems using dedicated alarm paths*;

— *Part 2-3: Requirements for equipment used in systems with digital communicators using the public switched telephone network*;

— *Part 2-4: Requirements for equipment used in systems with voice communicators using the public switched telephone network*;

— *Part 3: Alarm transmission protocols* (in preparation);

— *Part 4: Annunciation equipment* (in preparation);

— *Part 5:* (free);

— *Part 6:* (free);

— *Part 7: Application guidelines* (in preparation).

Contents

1 Scope

This standard specifies in addition to the requirements specified in EN 50136-2-1, the requirements for equipment used in voice communicator systems utilizing the Public Switched Telephone Network.

2 Object

The object of this standard is to specify the performance characteristics of voice communicator equipment used in systems using the Public Switched Telephone Network to ensure their suitability for use and compatibility with different types of applications.

3 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 50136-1-4, *Alarm systems — Alarm transmission systems and equipment — Part 1-4: Requirements for systems with voice communicators using the public switched telephone network.*

EN 50136-2-1, *Alarm systems — Alarm transmission systems and equipment — Part 2-1: General requirements for alarm transmission equipment.*

ETS 300 001, *Attachments to the Public Switched Telephone Network (PSTN); General technical requirements for equipment connected to an analogue subscriber interface in the PSTN.*

4 General considerations

4.1 General

Three types of voice communicators, named type 1, type 2 and type 3, are defined in EN 50136-1-4. This notation is referenced in this standard.

4.2 Alternative destinations

Where the communicator includes a facility for dialling more than one telephone number dependent on the message to be transmitted, the dialling sequence initiated by one event may be interrupted in order to allow the transmission of a higher priority event.

5 Equipment requirements

Alarm transmission equipment within the scope of this standard shall comply with the requirements in EN 50136-2-1.

In addition, the voice communicator shall meet the following requirements.

5.1 Connection to first exchange of PSTN

A facility shall be provided for monitoring the integrity of the connection from the supervised premises transceiver interface to the first exchange of the transmission network and providing this information to the associated alarm system.

5.1.1 *From supervised premises*

Where the communicator is intended for use on a shared telephone line, the following requirements shall be met.

a) If a telephone call is in progress when a condition requiring transmission occurs then the call shall be terminated subject to PSTN feasibility and the transmission procedure initiated.

b) The voice communicator equipment shall not be damaged by connection to the same telephone line as equipment that meets ETS 300 001 requirements.

5.2 Performance of power supply of the voice communicator

There shall be no modification of stored information in the alarm system transceiver, e.g. telephone number of the alarm receiving centre or message content, as the result of the failure of either primary, secondary or both power supplies or their restoration.

5.3 Operation

The supervised premises transceiver shall be capable of the following sequence of operation, when connected to a normal telephone line.

NOTE Where national or local requirements for equipment connected to national or private networks exist these should be met even when these requirements are contradictory to the requirements in **5.3**.

5.3.1 *Initiation of connection*

Following a change of the status of the interface to the alarm system the transceiver shall go off-hook within 4 s.

After going off-hook, the transceiver shall wait until a signal has been detected indicating that the transmission path is available and then begin the dialling process. The wait for the signal shall not exceed 7 s. An option may be provided to allow the delay for the signal to be set to an alternative, larger time limit for use in areas where it is known that the delay to the receipt of the signal normally exceeds 7 s.

If the signal has not been detected within the time limit set, the transceiver shall go on-hook and start the sequence again. On the second and subsequent attempts to detect the signal the wait may exceed the initial time limit.

5.3.2 *Transmission of information*

On completion of the dialling sequence the voice message shall be transmitted several times for a period of up to five minutes, or longer as may be determined by local regulations.

Information concerning the event which initiated the transmission shall be transmitted, although the event itself may have restored to normal.

Information concerning other events which may have occurred during the dialling sequence may also be transmitted once the connection is established.

5.3.3 *Termination of call*

5.3.3.1 *Type 1 voice communicator*

For type 1 voice communicators the transceiver shall close down and release the telephone line within 10 s after the transmission of the message is completed. There shall be no mandatory acknowledgement of the correct receipt of the message.

5.3.3.2 *Type 2 voice communicator*

For type 2 voice communicators the transceiver shall close down and release the telephone line within 10 s after the transmission of the message is completed. The responsible person and/or the alarm receiving centre shall confirm the correct receipt of the message by making a phone call back to the supervised premises transceiver. Where the transceiver does not detect the ring back call within 40 s of the close down, an attempt shall be made to establish a new connection to the same or a different number and the transmission sequence repeated.

5.3.3.3 *Type 3 voice communicator*

For type 3 voice communicators a facility shall be provided to allow the responsible person and/or the alarm receiving centre to transmit an acknowledgement signal to the supervised premises. The transceiver shall close down and release the telephone line within 2 s, measured from the receipt of an acknowledgement signal. If an acknowledgement signal is not received within 30 s measured from the start of transmission of the information message, or within 45 s measured from the completion of the dialling sequence, whichever is the greater, the call shall be terminated and a new connection established and the transmission sequence repeated.

5.3.4 *Secondary calls*

Following the termination of a call an attempt may be made to transmit the information message to a different alarm receiving centre or responsible person, but further calls of the same message shall not be made to the original destination.

5.3.5 *Repeat attempts to transmit (type 2 and 3 voice communicators)*

A facility shall be provided to limit to 16 the total number of call attempts made to any one number.

Where more than one number may be called then a facility shall be provided to limit the successive attempts to call one number, before proceeding to the next number. Such attempts may be limited by the requirements of the associated alarm system, but shall not exceed 4.

5.3.6 *Failure to receive an acknowledgement*

For type 2 systems a local output may be provided by the transceiver in the event of failure to receive an acknowledgement from the responsible person or alarm receiving centre.

For type 3 systems information shall be provided by the supervised premises transceiver to the associated alarm system in the event of failure to receive an acknowledgement from the responsible person or alarm receiving centre.

5.4 Recording of information

The recording and play-back method and bandwidth shall be sufficient to allow a message to be clearly understood on play-back.

6 Testing

6.1 General

Equipment shall be tested in accordance with the requirements of EN 50136-2-1.

6.2 Functional test

The following additional tests shall be carried out in addition to the basic functional test:

Tests shall confirm that when an alarm condition is presented to the supervised premises transceiver interface, it will respond and attempt to establish a connection in accordance with the manufacturer's product specification and the requirements of clause **5.3** of this standard.

For type 2 and type 3 systems this shall include tests to ensure that, when the first attempt fails, the equipment attempts to re-establish a connection, it generates a local fault signal in the event of failure to do so.

6.3 Environmental testing

The electrostatic discharge test specified in EN 50136-2-1 shall also be carried out during the dialling process of the basic functional test. The test may not compromise the ability of the transceiver to send the intended message. It may, however, corrupt the specific attempt then resulting in a new attempt by the transceiver.

For a type 1 voice communicator this means that of all repeats at least one understandable message shall be recognized at the supervised premises transceiver interface to the network, even if it is following one or several totally or partially incomprehensible messages.

For type 2 voice communicators, this means all repeats, if any, may be corrupted, resulting in a new correct attempt if the message is not confirmed from the receiving station.

7 Product specification

In addition to the requirements of EN 50136-2-1, the product specification shall include:

a) details of how to program/record messages;

b) details of the minimum and maximum length allowed for the message;

c) the number of repeat transmissions supported and of any adjustment available;

d) details of how to program the telephone numbers and the calling sequence.

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