



BSI Standards Publication

Alarm systems — Alarm transmission systems and equipment

Part 2: Requirements for Supervised Premises Transceiver (SPT)

National foreword

This British Standard is the UK implementation of EN 50136-2:2013+A1:2023. It supersedes BS EN 50136-2:2013, which will be withdrawn on 4 September 2023.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CENELEC text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee GW/1, Electronic security systems and products.

A list of organizations represented on this committee can be obtained on request to its committee manager.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2023
Published by BSI Standards Limited 2023

ISBN 978 0 539 16374 2

ICS 13.320; 33.040.40

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2013.

Amendments/corrigenda issued since publication

Date	Text affected
31 July 2023	Implementation of CENELEC amendment A1:2023

EUROPEAN STANDARD

EN 50136-2:2013ŽA1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2023

ICS 13.320; 33.040.40

Supersedes EN 50136-2-1:1998 + corr. Apr.1998 + A1:2001, EN 50136-2-2:1998, EN 50136-2-3:1998, EN 50136-2-4:1998

English version

**Alarm systems -
Alarm transmission systems and equipment -
Part 2: Requirements for Supervised Premises Transceiver (SPT)**

Systemes d'alarme -
Systemes et équipements de transmission
d'alarme -
Partie 2: Exigences pour les transmetteurs
des locaux surveillés (SPT)

Alarmanlagen -
Alarmübertragungsanlagen und -
einrichtungen -
Teil 2: Anforderungen an
Übertragungseinrichtungen (ÜE)

This European Standard was approved by CENELEC on 2013-08-12. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

Foreword	4
1 Scope	6
2 Normative references	6
3 Terms, definitions and abbreviations	6
3.1 Terms and definitions	6
3.2 Abbreviations	7
4 General requirements	7
4.1 General	7
4.2 SPT classification	8
5 Functional requirements	8
5.1 General	8
5.2 Access levels	8
5.3 Remote access	9
5.4 Uploading and downloading of software and firmware	9
5.5 Storage of parameters	9
5.6 ATS and ATP fault reporting to the AS	9
5.7 Interface to the AS	9
5.8 Monitoring of the transmission network interface(s) – Fault reporting	10
5.9 Power supply for the SPT	10
5.10 Event logging	10
6 Operation	12
6.1 Modes of acknowledgement operation	12
6.2 SPT alarms	12
6.3 Substitution security	13
6.4 Information security	13
7 Documentation	13
7.1 SPT documentation	13
7.2 Marking and identification	14
8 Housing and tamper protection – Tamper protection requirements	14
9 Tests	14
9.1 General	14
9.2 General requirements	14
9.3 Reduced functional test	15
9.4 Functional tests	15
Annex A (normative) Requirements of the interface between AS and SPT	28
A.1 Parallel interface between AS and SPT	28
A.2 Serial interface between AS and SPT	28
Bibliography	30

Tables

Table 1 — Event recording classification – Events to be recorded	11
Table 2 — Event recording classification – Memory capacity & endurance	11
Table 3 — Alarms originated by the SPT and transmitted to the RCT	13
Table 4 — Summary of functional tests	16
Table 5 — Test of access levels	17
Table 6 — Test of upload and download of software and firmware	18
Table 7 — Test of parameter storage	18
Table 8 — Reporting ATS failure from the SPT to the AS in a Dual path ATS.	19
Table 9 – Reporting the ATS path failure from the SPT to the AS in a Single path ATS.	19
Table 10 — Test of standardized serial interface to the AS.	20
Table 11 — Test of standardized parallel interface to the AS.	21
Table 12 — Test of proprietary interface to the AS.	22
Table 13 — Test of the transmission network interface monitoring	22
Table 14 — Test of event logging	23
Table 15 — Test of event log capacity	23
Table 16 — Test of clock resolution	24
Table 17 — Test of store-and-forward operation	25
Table 19 — Test of means of ATS performance verification	27

European foreword

This document (EN 50136-2:2013/A1:2023) has been prepared by CLC/TC 79 “Alarm systems”.

The following dates are fixed:

- latest date by which this document has to be (dop) 2024-02-13 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) 2026-02-13 conflicting with this document have to be withdrawn

Amendment 1 to EN 50136-2:2013 makes miscellaneous changes to correct errors and to better reflect the current state of the art.

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

1 Scope

This European Standard specifies the general equipment requirements for the performance, reliability, resilience, security and safety characteristics of supervised premises transceiver (SPT) installed in supervised premises and used in alarm transmission systems (ATS). A supervised premises transceiver can be a stand-alone device or an integrated part of an alarm system.

These requirements also apply to SPT's sharing means of interconnection, control, communication and power supplies with other applications.

The alarm transmission system requirements and classifications are defined within EN 50136-1. Different types of alarm systems may in addition to alarm messages also send other types of messages, e.g. fault messages and status messages. The term alarm is used in this broad sense throughout the document. Additional requirements for the connection of specific types of alarm systems are given in the relevant European Standards.

Because the SPT can be applied in different applications (e.g. I&HAS, fire and social alarm systems), requirements for the SPT, additional to those of this European Standard, may be specified in separate application specific documents.

This European Standard specifies the requirements specific to alarm transmission. Application specific requirements for the connection of the SPT to specific types of alarm systems are given in the EN 50131 (all parts) for I&HAS, and EN 54 (all parts) for fire. For other SPT applications, see the relevant National or European standards.

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 50130-4, *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 50130-5, *Alarm systems — Part 5: Environmental test methods*

EN 50136-1:2012, *Alarm systems — Alarm transmission systems and equipment — Part 1: General requirements for alarm transmission systems*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50136-1:2012 and the following apply.

3.1.1

alternative power source

power source capable of powering the SPT for a predetermined time when a prime power source is unavailable

3.1.2

indication

information (in audible, visual or any other form) about the state of the SPT, RCT and/or ATS