

English version

**Alarm systems -
Intrusion and hold-up systems -
Part 2-7-1: Intrusion detectors -
Glass break detectors (acoustic)**

Systèmes d'alarme -
Systèmes d'alarme contre l'intrusion
et les hold-up -
Partie 2-7-1: Détecteurs d'intrusion -
Détecteurs bris de glace (acoustiques)

Alarmanlagen -
Einbruch- und Überfallmeldeanlagen -
Teil 2-7-1: Einbruchmelder -
Glasbruchmelder (Akustisch)

This Technical Specification was approved by CENELEC on 2009-03-06.

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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 Technical Specification was prepared by the Technical Committee CENELEC TC 79, Alarm systems.

The text of the draft was circulated for voting in accordance with the CEN/CENELEC Internal Regulations, Part 2, Subclause 11.3.3.3 and was approved by CENELEC as CLC/TS 50131-2-7-1 on 2009-03-06.

The following date was fixed:

- latest date by which the existence of the CLC/TS
has to be announced at national level (doa) 2009-09-06

EN 50131 will consist of the following parts, under the general title “*Alarm systems – Intrusion and hold-up systems*”:

- Part 1 System requirements
- Part 2-2 Intrusion detectors - Passive infrared detectors
- Part 2-3 Requirements for microwave detectors
- Part 2-4 Requirements for combined passive infrared and microwave detectors
- Part 2-5 Requirements for combined passive infrared and ultrasonic detectors
- Part 2-6 Opening contacts (magnetic)
- Part 2-7-1 Intrusion detectors - Glass break detectors (acoustic)
- Part 2-7-2 Intrusion detectors - Glass break detectors (passive)
- Part 2-7-3 Intrusion detectors - Glass break detectors (active)
- Part 3 Control and indicating equipment
- Part 4 Warning devices
- Part 5-3 Requirements for interconnections equipment using radio frequency techniques
- Part 6 Power supplies
- Part 7 Application guidelines
- Part 8 Security fog device/system

This Technical Specification provides for security grades 1 to 4 (see EN 50131-1) passive acoustic glass break detectors installed in buildings and uses environmental classes I to IV (see EN 50130-5).

The purpose of a detector is to detect the acoustic energy exclusively emitted by the physical destruction of a glass pane, which allows intrusion to the monitored area for example in doors, windows or enclosures and to provide the necessary range of signals or messages to be used by the rest of the intruder alarm system.

Functions additional to the mandatory functions specified in this standard may be included in the detector, providing they do not adversely influence the correct operation of the mandatory functions.

The number and scope of these signals or messages may be more comprehensive for systems that are specified at the higher grades.

This Technical Specification is only concerned with the requirements and tests for the detector. Other types of detectors are covered by other documents identified as EN 50131-2-X / CLC/TS 50131-2-X.

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1 Scope

This Technical Specification is for passive acoustic glass break detectors installed in buildings and provides for security grades 1 to 4 (see EN 50131-1), specific or non-specific wired or wire-free detectors and uses environmental classes I to IV (see EN 50130-5). This Technical Specification does not include requirements for passive acoustic glass break detectors intended for use outdoors.

A detector shall fulfil all the requirements of the specified grade.

Functions additional to the mandatory functions specified in this standard may be included in the detector, providing they do not adversely influence the correct operation of the mandatory functions.

This Technical Specification does not apply to system interconnections.

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 50130-4	Alarm systems – Part 4: Electromagnetic compatibility – Product family standard: Immunity requirements for components of fire, intruder and social alarm systems
EN 50130-5	Alarm systems – Part 5: Environmental test methods
EN 50131-1	Alarm systems – Intrusion and hold-up systems – Part 1: System requirements
EN 50131-6	Alarm systems – Intrusion and hold-up systems – Part 6: Power supplies
EN 60068-1:1994	Environmental testing – Part 1: General and guidance (IEC 60068-1:1988 + corrigendum Oct. 1988 + A1:1992)
EN 60068-2-52:1996	Environmental testing – Part 2: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution) (IEC 60068-2-52:1996)
EN 60529	Degrees of protection provided by enclosures (IP code) (IEC 60529)
EN ISO 527-1	Plastics – Determination of tensile properties – Part 1: General principles (ISO 527-1)
EN ISO 527-2	Plastics – Determination of tensile properties – Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2)
EN ISO 1183 series	Plastics – Methods for determining the density of non-cellular plastics (ISO 1183 series)
EN ISO 2039-2	Plastics – Determination of hardness – Part 2: Rockwell hardness (ISO 2039-2)

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50131-1 and the following apply.

3.1.1

glass breakage

physical destruction of a glass pane, which allows intrusion to the monitored area. For example in doors, windows or enclosures